

2008
2018

HISPA BRICK

magazine

10th Anniversary



Vol. 030 #02/2108



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HISPA BRICH MAGAZINE®



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Nuestro agradecimiento a / Thanks to

LEGO® System A/S
Jørgen Vig Knudstorp
Jan Beyer
Kim E. Thomsen

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Portada por / Cover by

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Editorial

Lluís Gibert (lluigib)



It is hard to believe ten years have gone by since the first issue of HispaBrick Magazine® was published. It has been ten years of effort, sweat, emotion, urgency, satisfaction and, above all, relaxation each time a new issue is published.

We started out with the intention of fighting the immediacy and oblivion of the internet. A humble project that, year after year, has grown to become one of the core reference magazines in the AFOL world.

Hundreds of LEGO® fans from all over the world have collaborated with us, selflessly contributing their knowledge for the benefit of the community. Without all of those AFOLs HispaBrick Magazine® would not have a reason to exist. Through these words we wish to sincerely thank each and every person who has collaborated with us. You have been the engine of this magazine!

The LEGO® company has also played an important part during these ten years, particularly the Community team. From the very first issue they were enthusiastic about the idea and their support has been constant, through interviews, reports, visits and sets for review.

Finally I would personally like to thank the small HispaBrick Magazine® team that throughout the years has included: Antonio, Carlos, Gemma, Geni, Íñigo, Jesús D. Jesús G, Jetro, Jose and Vicente. You are the soul of HispaBrick Magazine® and your passion makes it possible to have a new 'baby' every four months.

We hope you enjoy this special issue, in which you will get to know the current staff a little better, and we offer you a few small surprises related to our anniversary.

Enjoy!

#





I always find it rather incredible to travel to different parts of the world and experience the passion and creativity of LEGO® builders in many different lands. Whether in Spain or in Taiwan, there are people who are sharing an energy and passion for making amazing things with LEGO® bricks and making new creations as well as discussing the creations that the LEGO® Group is putting on the market. I have often felt that engaging with such people is like a car manufacturer meeting a race car driver. There is nobody who better understands the 'car' and can better push it to its limits.

It gives me energy, inspiration and satisfaction.

When HispaBrick Magazine® started coming out I had such an experience again. I was amazed it was possible to make a magazine to cover this audience. Since then I consider myself lucky to have enjoyed 29 issues of this inspiring magazine. Congratulations on the ten years and I wish the editor, all contributors and readers around the world all the best in the future with their LEGO® passion.

*Jørgen Vig Knudstorp
Executive Chairman of LEGO® Brand*





Dear HispaBrick Magazine® Crew,

Ten years - this is a very long time, and I can clearly remember the first issue of the magazine with the arvo Brothers Alien MOC on the cover and it seems not at all that long ago. Back then nobody was expecting this big success, but you have proved that you can pull this off!

I have enjoyed reading every issue since then and it has always been a true pleasure, and very entertaining and educational for me - very well written and researched articles, a lot of great insights into the AFOL community, and I could learn something new about the AFOL community in every issue.

So I would like to congratulate you on this 10 year anniversary. Thank you for all the effort and time you spend on the HispaBrick Magazine® and I hope it will continue for many more years in the future. Keep up the great work and enjoy creating this fantastic and outstanding piece of AFOL literature - I will continue enjoying it for sure.

*Jan Beyer
Manager, AFOL Network Events*





*Congratulations to the HispaBrick Magazine®
team on your 10th anniversary!*

*I am always amazed by the quality of the articles
and the depth and breadth of the subjects covered,
and it's been essential reading for me since the first
issue. I am honoured to have helped spread the word
to ensure every issue gets the readership it deserves.*

*Your incredible team of volunteers do such a
fantastic job and I truly hope you continue to do so
for the next 10 years.*

*Huw Millington
Founder, creator and webmaster*



From its first issue ten years ago, HispaBrick Magazine® has become an integral part of the LEGO® hobby community, providing high-quality coverage of not just builders and events in Spain but from the entire global community. The Brothers Brick shares this vision of a globally connected community, and we've all been huge fans of the publication since its beginning. From the entire team at The Brothers Brick to the HispaBrick Magazine® team, congratulations on 10 years of great LEGO® creations, exciting events, and interesting people!

*Andrew Becraft
Editor-in-Chief*



Warmest congratulations to HispaBrick Magazine® from all of us here at Eurobricks for reaching such a milestone with your wonderful publication! Ten years strong is a fabulous achievement! We're so pleased to join you in the celebrations, and we wish you many more decades of success and look forward to continuing our collaborations.

With our very best wishes from your friends at Eurobricks.

Eurobricks Staff Members



2008



2011



10th Anniversary
2018



2013

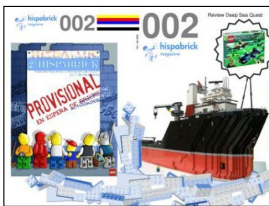


2017

2008



- The start of HispaBrick Magazine®.
- This edition is only available in Spanish. Carlos (car_mp) and Lluís (lluigib) make up the staff and Iñigo (g2bricks) takes care of the layout; Antonio (Legotron), Jesús (Arqu_medes) and Jetro (Jetro) are collaborators.

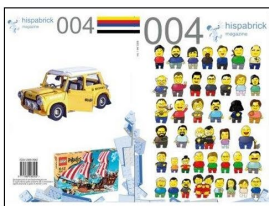


- This is a bilingual edition; some of the articles appear in both Spanish and English



- Two editions are published, one in Spanish and one in English
- Great international reception, from this very first issue, the downloads in English exceed those in Spanish

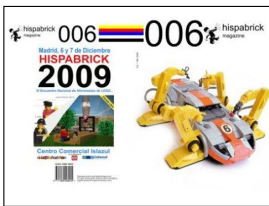
2009



- Iñigo leaves the team and Carlos starts doing the layout
- First collaboration of Jose (Satanspoet) and Vicente (Otum)

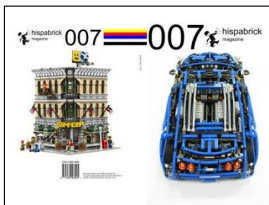


- First issue to reach a total download of 2.000 for the Spanish edition in the first 4 months after publication



- Jetro (linmix) becomes part of the staff

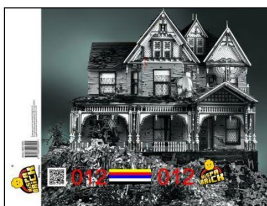
2010



- First collaboration of Gemma (Bitxa) and Jesús (Manticore)
- Interview with Kjeld Kirk Kristiansen



2011



- HispaBrick Magazine® is a registered trademark
- The magazine gets a new logo

- The first issue to reach 10.000 downloads in the first four months after publication

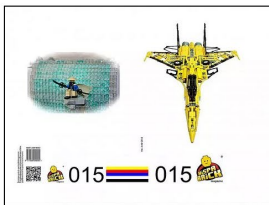
2012



- Presentation of MILS (Modular Integrated Landscaping system)



- The first time the magazine runs over 100 pages

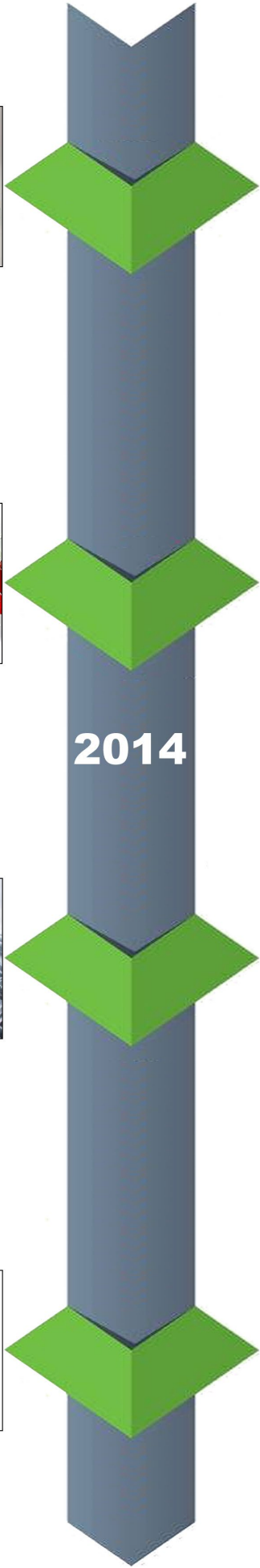


- We start hosting the magazine on our own server, as part of the website for the magazine

2013



- 5th anniversary of HispaBrick Magazine®
- The first issue to reach 20.000 downloads in the first four months after publication



- The first issue to reach 25.000 downloads in the first four months after publication
- This is the most downloaded issue according to our server statistics, with over 45.000 in total





- Antonio becomes part of the staff
- We reach 250.000 downloads since we started hosting the magazine on our own server

2015

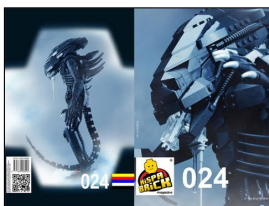


- Last issue with Carlos as chief editor
- Jose becomes part of the staff



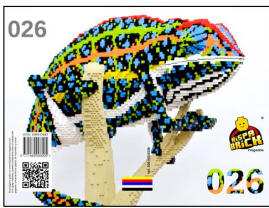
- Antonio takes care of the layout

2016





- Lluís is in charge of the layout



2017



- The new logo is presented
- Eurobricks and Kockice get dedicated corners in the magazine



- First edition of the magazine in Croatian

2018



- Benny (from Luigi Priori) gets dedicated corner in the magazine



- 23rd May is the 10th Anniversary of HispaBrick Magazine®
- We launched first commemorative set: 1001 - HispaBrick Magazine® Kiosk, including a Kiosk with a bicycle post.



HispaBrick Magazine® Kiosk: Design

Text and images by Iluisgib

At the start of 2017 I started thinking about doing something special for the 10th anniversary of HispaBrick Magazine®. It is every AFOL's dream to make an exclusive commemorative set, but since it would be impossible to get LEGO® to produce this (understandably), I decided to design my own commemorative set. After presenting the idea to the staff of the magazine, and seeing their enthusiastic reaction, I got to work.

The first step was presenting the idea to the LCE team (Community & Engagement). I did so during a visit to Billund in March 2017, when I had the opportunity to discuss several ideas regarding the anniversary of HispaBrick Magazine®. I thought they would say: "You are crazy", but instead they offered to help in any way they could. The first step had been taken.

One of the marvellous things about the LEGO® community is that its tentacles reach the least expected places... A few days after my meeting in Billund, I met LCP Dirk Denoyelle and his lovely wife in Barcelona. We had an interesting chat about this and that at the Plaça Reial. I asked to interview him and we published his interview in HispaBrick Magazine® 027. I also mentioned my idea for set to celebrate the anniversary of the magazine. As a result of that conversation, Dirk put me in touch with Jaco van der Molen, an AFOL who helps Dirk generate the building instructions for the sets he creates as an LCP.

When Jaco contacted me he was enthusiastic about the idea and asked for prototypes to get started. At that moment my idea of the set I wanted to design was only half finished and I needed some time to turn it over in my head. In the meantime we published issue number 027, which required many hours of work and I had to put the project on hold temporarily. But at the start of June, Jaco got in touch to see how things were going, and that was the encouragement I needed to really start working on the design of the set.

Preliminary Design

At first the set consisted of three parts:

- A kiosk
- A public bike rental service
- A basketball court for handicapped players

The choice of a kiosk was obvious. We are a magazine, and although we are digital, the best way to represent us is with a newspaper kiosk. That was beyond dispute.

The public bike rental service is something that is very present in cities today, and LEGO® hasn't yet picked up on this idea. I was inspired by 'Bicing', the public bike rental service of Barcelona, and I wanted a touch of ecology in the set, instead of the typical delivery truck.



The basketball court would be a reflection of something we have tried to explain in HispaBrick Magazine® over the years. It isn't just about the hobby, but also about how these bricks can help underprivileged and disabled people. It is hard to represent this idea in a tangible way, but I thought this was a way to get close.

I started off with a kiosk design I had built before. It was simple, but there were some useful ideas there. It was a mix between LDD and physical bricks. LDD is obviously a powerful tool, but it took a lot of practice to create a robust design and make 'illegal' constructions fit. For this reason I often started building with physical bricks and then reflected my progress in LDD. On other occasions I built directly in LDD due to the availability of certain elements.

The part that caused me the most headaches was working out how to attach the bicycles to the rack. I had been thinking about it for some time, but I didn't realise how wrong I was until I started to actually build it. I needed a change of concept. I wanted to use a Technic brick, but that was not possible because the front wheel collides with the base of the brick. Then I thought of using a liftarm. In this case, although it was technically possible, it was hard to create the posts that would keep it up, and the empty holes between bikes were aesthetically displeasing. Finally I stumbled on the perfect element. It is the 2x2 Plate with Single Pin Hole (#2444 / #10247) that allows you to introduce the light on the front of the bike while leaving space for the wheel under it.

In the end the basketball court was removed from the design, mainly because of the cost. I would have liked to add it, and designing this part would have been by far the easiest part, but it would have made the set too big and there was little connection between the three elements.

Final Design

It was then time to turn the design into something real. As I mentioned earlier, LDD is a powerful tool, but it does not allow you to evaluate the sturdiness of a model. I started to look for all the necessary elements. In the meantime, I sent Jaco the first version in LDD so he could send me a first draft of the instructions.

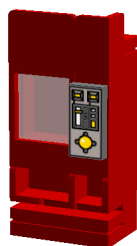
Once I had gathered all the elements, I started to build the model. That first model was a collage of pieces of different colours and shapes. I did not have all the elements in the right colours, but since this was only a first concept build I didn't mind that the visual appearance of the set was far from perfect.

The kiosk didn't change much. Basically, I changed the shop window in the back for a door and a smaller window, as suggested by Jaco. The shop window was meant to display the magazines, but having a door made the kiosk look more realistic.



I also wanted to add some accessories to make the model more attractive. I started with a coffee machine. I wanted to create a classic design, so I decided on a somewhat large and brown coffee maker.

Then I thought of a POS. At first I used a computer with keyboard, but I changed it to a touch screen to make it more modern.



The outside of the model was a bit uneventful. A tree and a bench to read HispaBrick Magazine® were a good addition, but it needed something more. That's why I designed the vending machine. The red colour is not related to Coca-Cola. I used red to break with the sober colours of the kiosk, and because red elements are usually easy to find.

The bike rental service gave me a few more headaches. The post with the screen for the rental service turned out to be too fragile in the first design. If you picked up the model by the post it would come off. That is why I redesigned the post so the decoration would help lend some rigidity. Something similar happened with the other post. At first I used two 1x1 bricks, but those were substituted by a 1x2 slope.



After exchanging various files with Jaco (who applied the changes with incredible speed), we arrived at a final version of the set.

We still needed to take another big hurdle: the availability of the elements. Kim of the LCE Team offered me the opportunity of using project support to order the elements. At that point we needed to make more changes: torsos, hair, heads, a few colours... not all the elements we had used were available, so I needed to make some quick changes to the model to adapt it to the available stock.

Finally the set was finished! I really enjoyed the process, but there was still much to do...

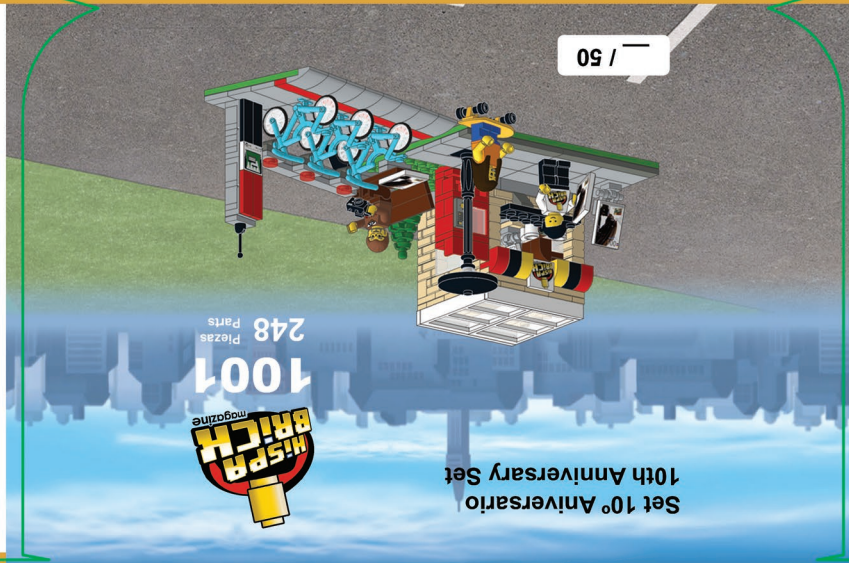
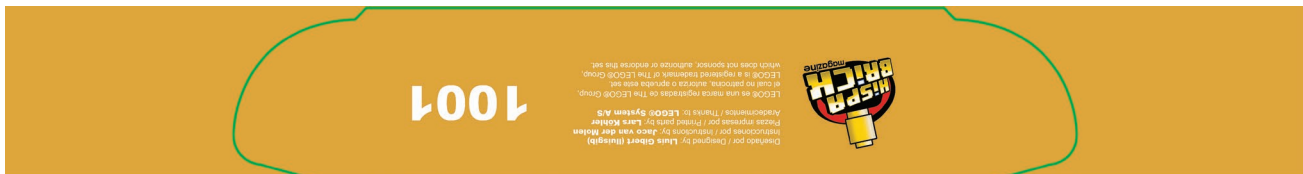
The Box

In order to make a set you need more than just the parts and the instructions. The box of a set is its calling card. It is not the same to get a set in a paper bag compared to getting a white box with a sticker or getting a fully printed box.

In this case the difficulty lay in finding a box that was the right size, and which could be printed in a small quantity at a low price. The cost of the set is covered by the small budget we have for HispaBrick Magazine® and which we use to pay for our hosting, our domain and incidentals. Since there is no advertising in the magazine, our budget is very limited and every Euro counts.

This is where the internet came to the rescue. I spent several days looking for a printer that offered everything we were looking for: in Barcelona, in Spain... until I located an online service that had some boxes fitting my criteria.

I designed the set using a downloaded Photoshop template. At first it was too similar to a CITY box. Then I thought we needed it to be more personal. I changed colours, distribution... and added a small easter egg that you will find when you open the front lid. Thanks to Jaco's renders and the bill of materials, I believe the result is worthy of a commemorative set. After uploading the file to the vendor's website, in less than a week I had the boxes. It all started to take shape.





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10th Anniversary

1001

No recomendado para niños menores de 12 años. Not suitable for children under 12 years.



1001

Contenido / Content*



Edición Limitada
Limited Edition





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Contacta con nosotros / Contact us:
info@hispabrickmagazine.com

1001

Content may slightly vary

HispaBrick Magazine® nació en 2008 como una iniciativa de algunos AFCEAs españoles con la idea de preservar para el futuro los mejores MOCs y artículos publicados en su comunidad. Lo que empezó como una pequeña revista de carácter "local" se ha transformado en una realidad, son proyección internacional, alrededor de la cual ha ido creciendo una comunidad.

HispaBrick Magazine® está disponible en Español, inglés (desde el número 003) y Croata (desde el número 028). Para celebrar la primera década de vida de esta revista abierta y gratuita para los entusiastas de LEGO®, hemos diseñado este set conmemorativo.

HispaBrick Magazine® was born in 2008 as the initiative of a few Spanish AFCEAs aimed at preserving the best MOCs and articles in their community for posterity. What started as a small project aimed at a local market has now become an internationally recognized magazine around which a community has grown. HispaBrick Magazine® is available in Spanish, English (from issue 003) and Croatian (from issue 028). To celebrate the first decade of this free and open magazine for LEGO® fans, we have designed this commemorative set.

Printed Elements

To make this set more personal it had to contain a few unique elements. In this case I considered printing three elements: a 2x2 tile with the HispaBrick Magazine® logo, a 2x3 tile with the cover of our first magazine, and a torso with the logo of the 10th anniversary.

I have a little more experience in these matters, so it didn't take much effort to design them and get some prototypes.

The impact printed elements would have on the final cost of the set was, once again, a problem. Enter Lars Köhler. In the past he had printed several pieces for me and I was very happy with the result. When I explained the project to him, he liked it a lot and we reached a mutually beneficial agreement.

I sent him the pieces that needed to be printed, and about three weeks later I received my order. Everything was perfect. Another step completed!



Sticker sheet

During all these years I have been quite critical of the sticker sheets that come in LEGO® sets. But once you start to design a set you start to understand they are way to contain costs.

In an ideal world each set would contain all 29 issues of HispaBrick Magazine® printed on a tile. But that was of course not realistic, mainly because of the cost. Those 29 front pages would have cost more than the entire set, including the box and the sticker sheet.

I designed a sticker sheet with all the front pages. Since they fit in a grid there was one space left empty (which would correspond to issue 030). That front page had not been designed yet, so I decided to add an image of the front of the box.

I sent the design to a printer I know. We ran some tests and after some adjustments to the printing machine the result was very good. When you print large vinyls, small imperfections are hardly noticeable, but printing the cover of HispaBrick Magazine® on a 10x15mm area is a challenge that required technical expertise.

Before printing the whole series of sticker sheets I noticed a serious mistake. The sheet would not fit in the box! Fortunately I noticed in time to change the distribution of the stickers so the sheet would fit in the box.

After a few days I received the sticker sheets: 30 stickers on a sheet, cut out with a plotter so you can separate them easily. I couldn't resist trying one on a 2x3 tile. This is the result.



Sorting of elements

Almost four months after placing the order I received the elements. Despite the wait I was really excited. Finally I could build the set. The first thing I did was to separate out the elements for two sets: one to test the model and the other to send to Jaco so he could check the instructions against the build. A few days after I sent him the elements he sent me the final version of the instructions. Not only had he adjusted the instructions to the model, but he had also recreated the three new printed elements and added them in the instructions, to make them as true to the real set as possible. A great job!

One of the stages I dreaded most, because of the inherent risk of mistakes, was sorting the elements for the 50 sets. Keep in mind that there are 248 elements in each set, so we are talking about sorting almost 12,500 elements by hand. The obvious risk: missing a piece in one of the sets.

How did I do it? I put 52 tupperware boxes on the table and sofa in my living room. I started with the elements that only appear once in the set, putting one in each box. Then I moved on to the ones that appear twice, three times, four times... at some point it became hard and tedious to count and distribute 10, 22 or 27 elements, so I asked my saintly wife for help. I would count and she would put the elements in each box. When I finished counting the elements I put the contents of each tupperware box into a ziplock bag.

After we had finished, how could we know we hadn't made any mistakes? Well, I don't know :D. But just to be on the safe side, I had sorted out two more sets. I took the elements of one of those two and built the set. No elements were missing. That doesn't mean none of the bags could be missing a piece. Errare humanum est... but at least I'm sure I put in all the pieces necessary to build the set.



The set

After almost a year the set was ready to be boxed. I put the elements for each set in a ziplock bag. I built the boxes. I had the sticker sheets.

Now I could put the boxes on the table and start: stickers, a 16x16 plate (not included inside the bag) and the bag with all the other elements. 50 times.

Once all the boxes were filled they needed to be closed. I found round transparent stickers with a slit in the centre, that keep the lid well closed and still allow it to be opened with ease. Et voilà! The set was finished.

The instructions for the set will be published in this issue of HispaBrick Magazine® so that our readers can reproduce the set.

The 50 sets will be distributed amongst those who have supported us during the years. You, our readers, are among those supporters. Pay close attention to our social networks and you will have a chance of getting one.



Conclusion

I imagined 'producing' a set would not be an easy task. Although it only contains 248 elements, and involved a production run of only 50 units, the job was still titanic. There are so many variables and any small deviation from the plans is potentially catastrophic.

However, it was a fascinating experience. The excitement, the pride, and above all the disinterested help from many people, have made contributed to making my first set a reality.

This set is a small tribute to ten years of HispaBrick Magazine®. When we brought out the first issue, back in 2008, we never thought we would still be here today. We could never have imagined how the LEGO® community would help us get to this anniversary with its help and willingness to participate in the magazine through countless interesting articles, allowing us to publish every four months with around 100 pages of content that is 100% LEGO® and free of advertising.

Acknowledgements

To **equipo de HispaBrick Magazine®** for believing in this project.

To **Jaco van der Molen** for his untiring determination that the instructions should be precise.

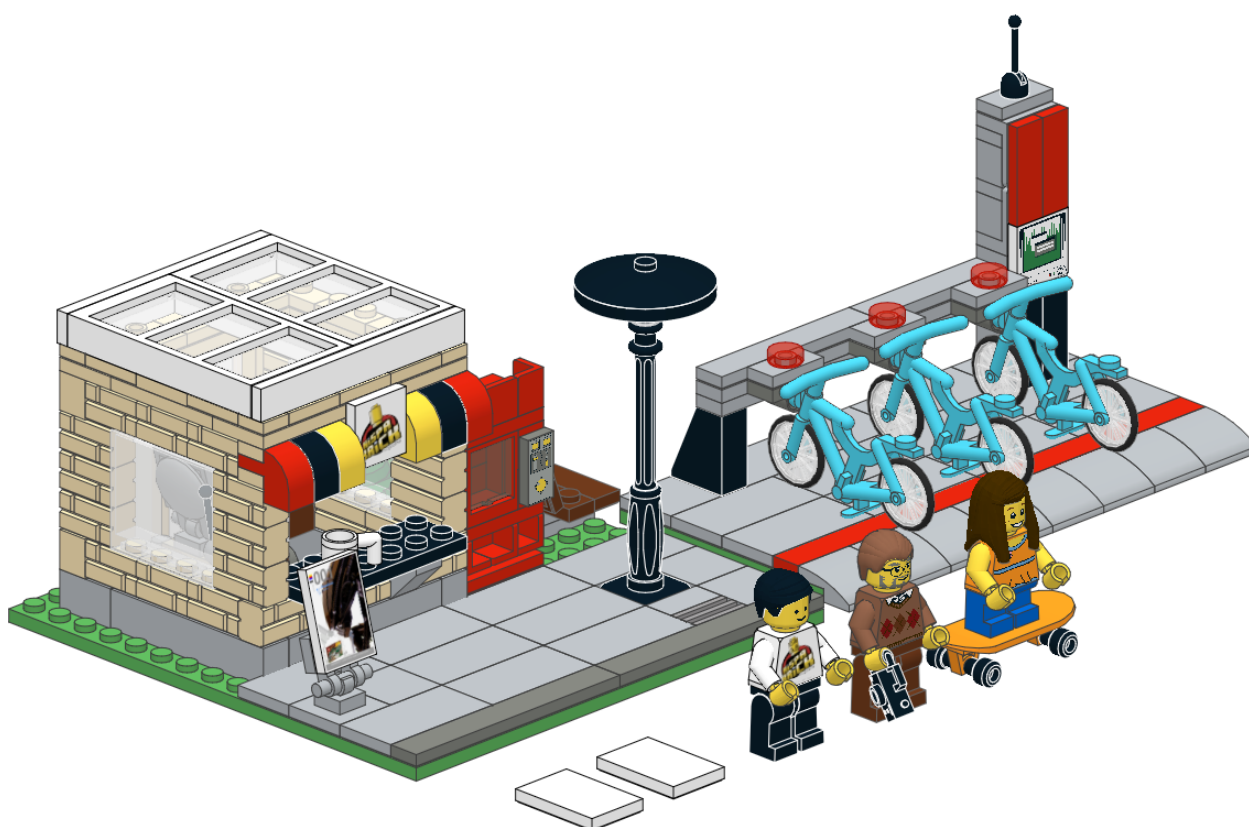
To **Lars Köhler** for his collaboration in printing the pieces.

To **Roman Gibert** and **Joel Pons Pons** for the hours dedicated to making the stickers perfect.

To **Kim E. Thomsen** and **Jan Beyer**, of the LCE Team, for their help in getting the elements.

And finally, to **Delia**, my wife, for her eternal patience in the 'LEGO® occupation' of our house and her help during the production process.

#



Creating the HispaBrick Magazine® Kiosk Instructions

Text and images by Jaco van der Molen

When Lluís contacted me about creating the instructions for this model I was immediately excited. In this article I will describe how I did it and what tools I used.

It all started with an email back in March 2017 when plans were starting for the model. The basis for the build was already available in LDD, but when I got the file it needed to be converted into LDraw format, since I create instructions with LDraw tools. With the latest `ldraw.xml` [1] this came out very nice to start with. Still, converting from LDD to LDraw is not 100% perfect, as some parts can be missing and some need correcting position, so there was still some manual correction to be done.

With a few adjustments the model was ready to process further with LDraw tools [2].

My choice of LDraw editing tool is LDCad. When you open a converted LDraw model, LDCad will tell you what parts are missing. I use various sources on the web like Brickset and Bricklink to find the parts. The most common problem is that the part has not been made in LDraw or is not yet official. Sometimes part numbers may differ, so you have to do some replacing. For this model I found all the parts and I used some unofficial parts. This is no problem since most unofficial parts work fine. The hard things to find were the patterned parts, especially the torso for the man, which turned out to exist in LDraw (but I could not find) and the torso for the girl that was exclusively made by request.

When all that is done you have your basic model in LDraw format, and now I have to think about making submodels. Submodels (or subassemblies or subfiles) are treated as 'parts' and are made of bricks. The bicycle for instance is made of 5 parts: the frame, the wheel (2x) and tire (2x). There are 3 bicycles in the set, so I created a submodel for one bike and used that 3 times.

The minifig torsos and legs are also made from parts: the body, the arms and the hands, and for the man and woman the legs are made from the hips and left and right leg. For each torso and pair of legs I also create a submodel.

Next I make a submodel for each individual minifig. Though LDCad is visual and you can easily find your submodels, I give each of these submodels a logical name like `torso1`, `torso2`, `legs1`, `minifig1`, etc. I will need that later on when creating instructions. I create other submodels along the way while thinking about steps and the logical use of submodels, so the the builder can understand the building process and make subassemblies much like LEGO® does all the time in their instructions.

The completed model is actually made up of two models: the kiosk and the bicycle rack. The kiosk will be the main model and the bike rack will be a submodel. Before I add steps, I sort the model and submodels by height of the bricks. I do this in MLCad, which is an older, but still very useful and functional



tool for creating models and instructions. When it comes to creating a digital model in LDraw the best tool of choice is LDCad, but MLCad comes in handy sometimes.

Once all bricks are sorted I add basic steps in LDCad. You can also step through the model in LDCad so you can see what the individual steps will be. While doing this I create some more submodels where needed. The next thing I do is open the model in LPub3D and generate very basic and simple instructions, going through the whole model once without doing any work on the layout or other stuff. I do this to see the images for the steps I created earlier and to see if I think the model is buildable.

The next step is to layout the page and create callouts for the different submodels. LPub3D is a great tool but sometimes it requires some tweaking and manual programming to really get what you want. There is a good tutorial on my website on working with LPub3D [3].

Finally there are some bricks that have custom prints and stickers, so I need to create those too. This is too long of a process to describe here, but you can find a tutorial on the web [4] and discussion on the [LDraw.org](http://www.ldraw.org) Forums [5].

Once I am happy with the result the final images have to be generated in high resolution and I do the rest of the layout to make the instructions to incorporate in the magazine.

All in all, this was a very nice project to work on. I hope you enjoy building it!

For any questions or help with LDraw tools contact me on the LDraw Forums.

#

[1] `ldraw.xml` is a parts conversion file - you can find a link on the Eurobricks forum

[2] You can download all the LDraw tools through www.ldraw.org

[3] <https://sites.google.com/site/workingwithlpub/>

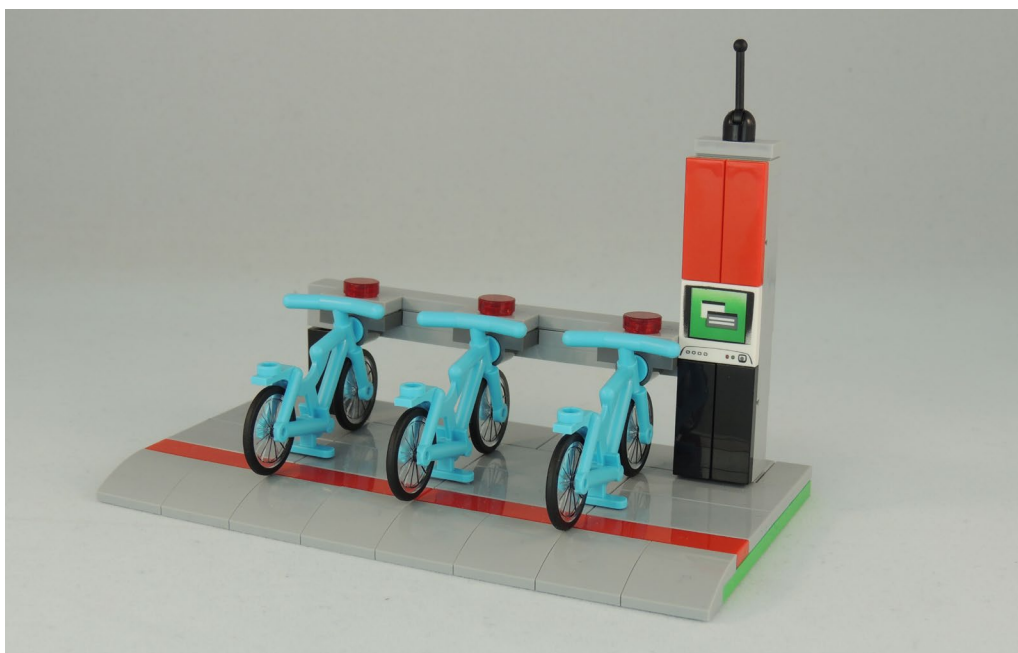
[4] <http://www.melkert.net/test/stickerGen.html>

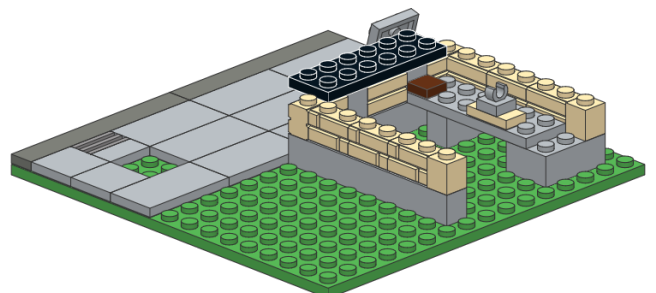
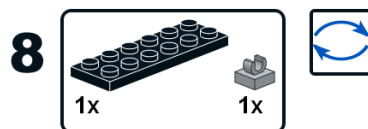
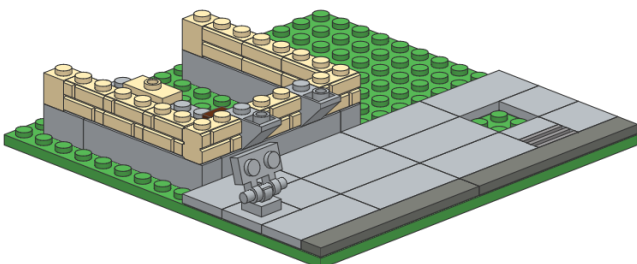
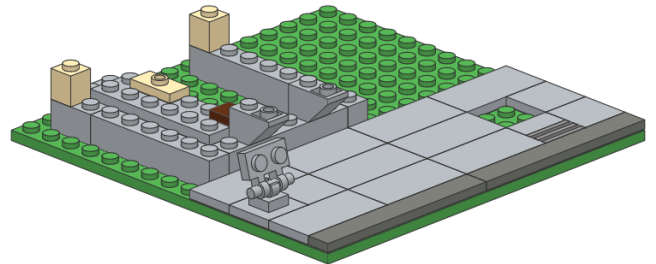
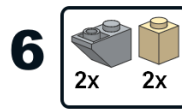
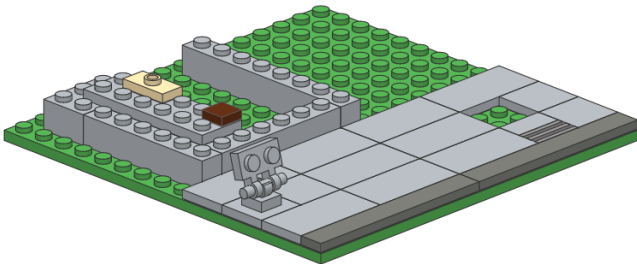
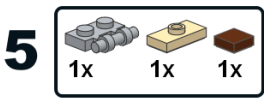
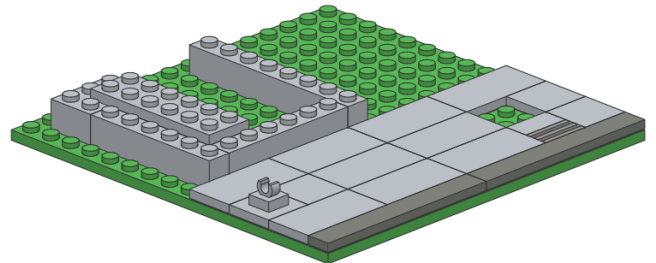
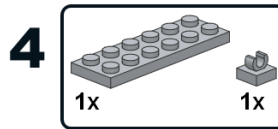
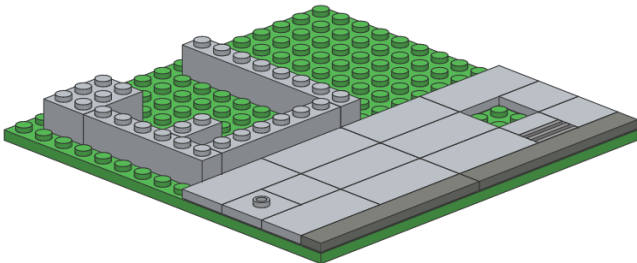
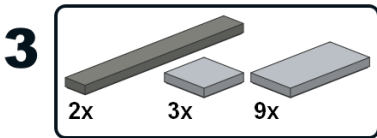
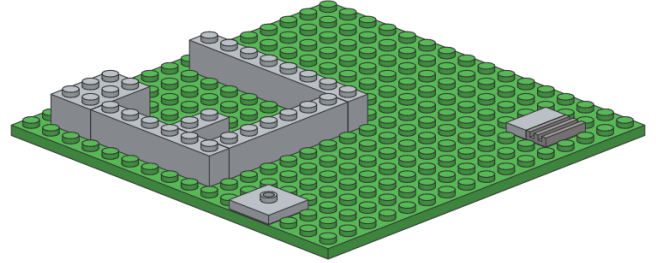
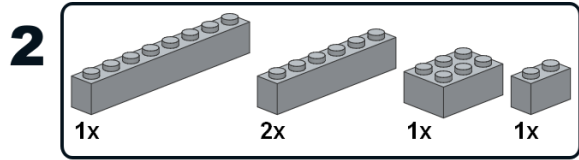
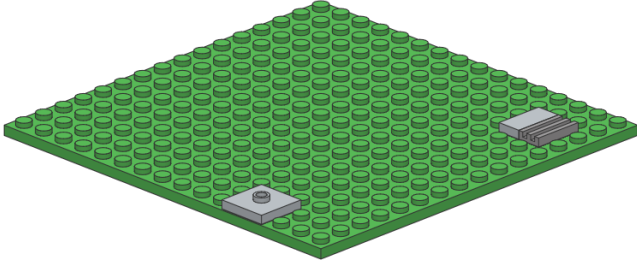
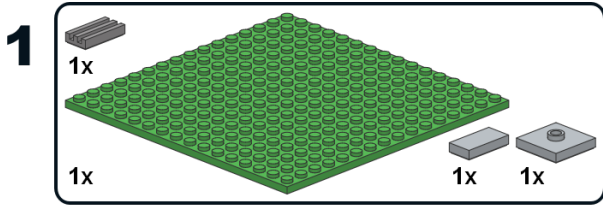
[5] <https://forums.ldraw.org/>

HispaBrick Magazine® Kiosk: Instructions

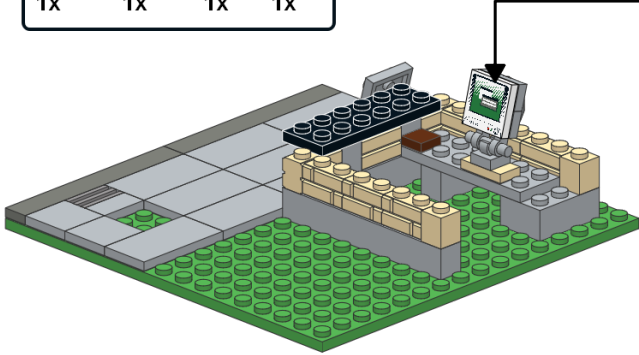
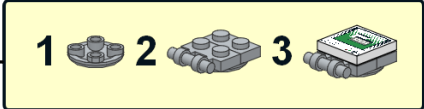
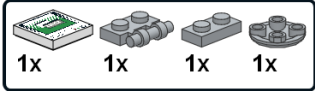
Pictures by Iluisgib

Instructions by Jaco van der Molen

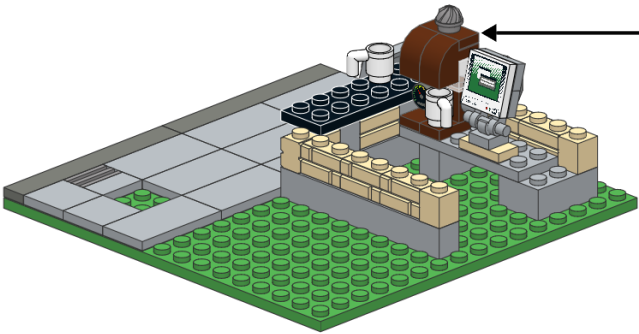
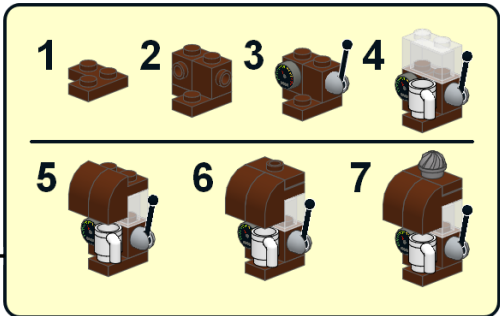




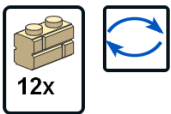
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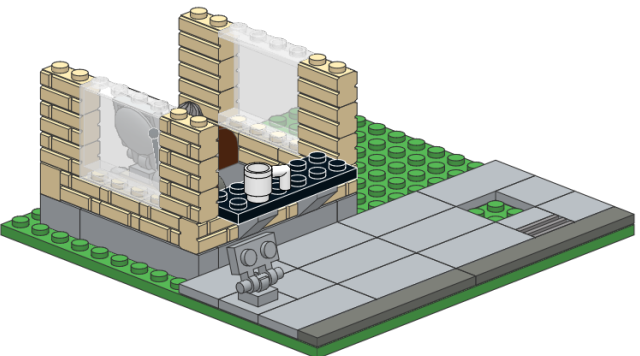
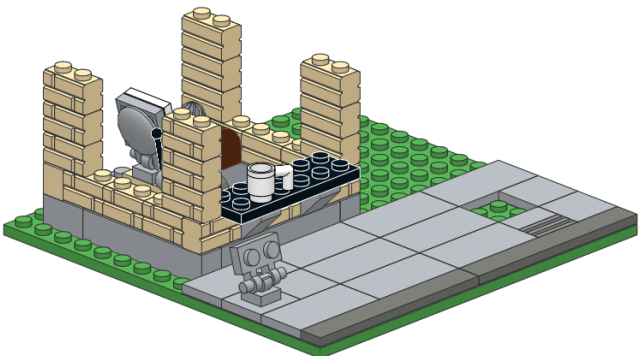
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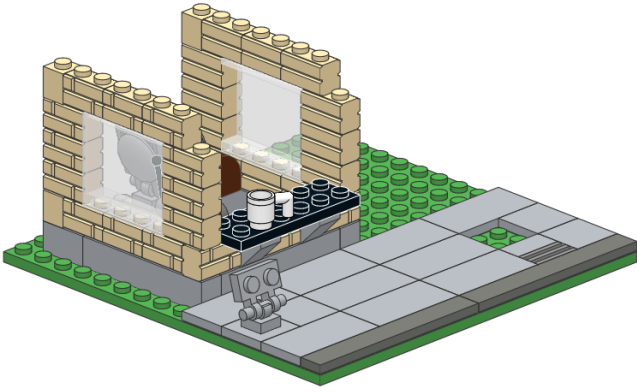
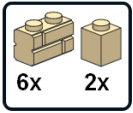
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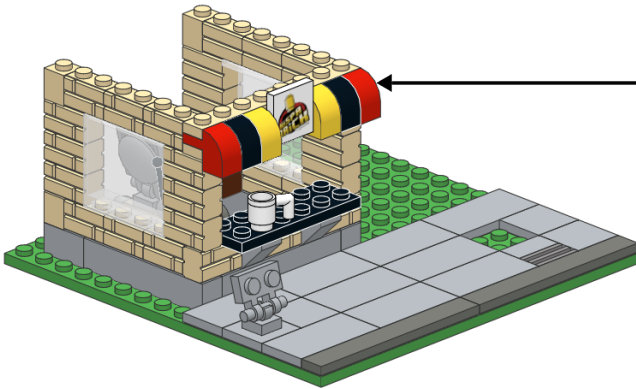
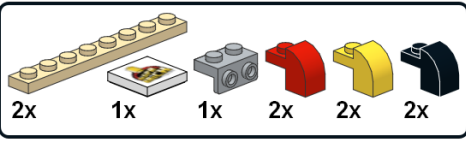
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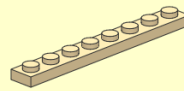
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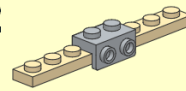
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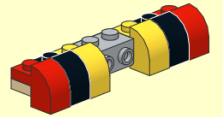
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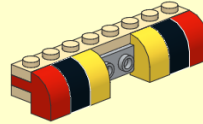
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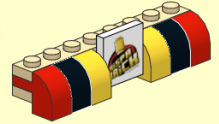
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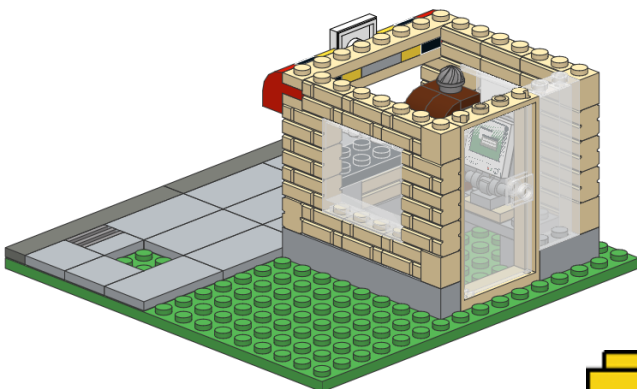
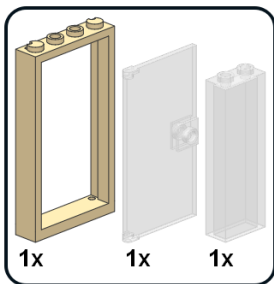
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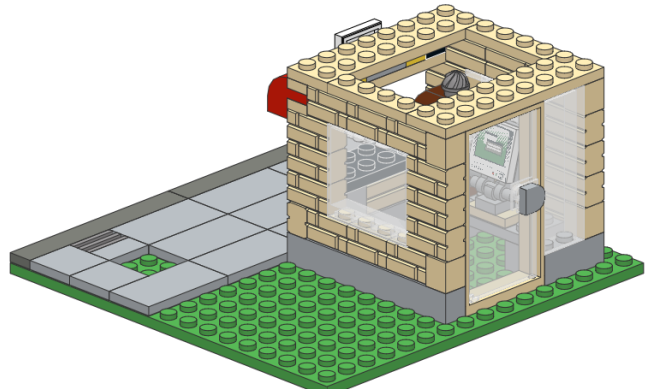
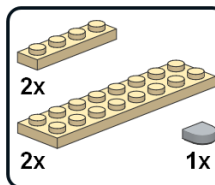
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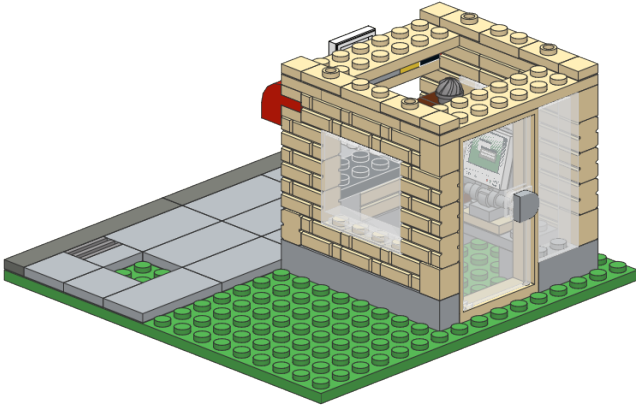
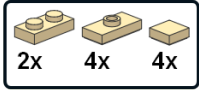
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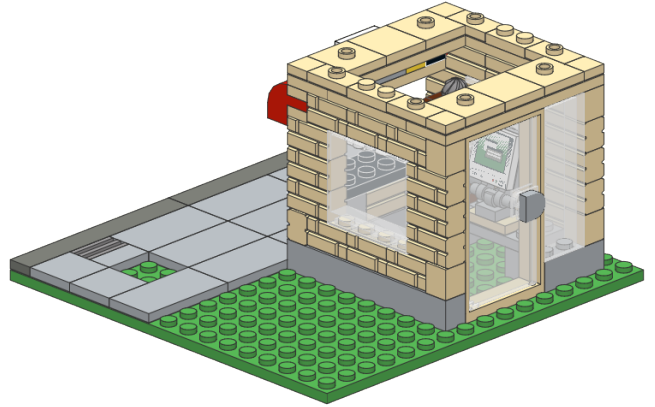
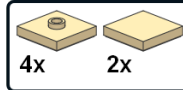
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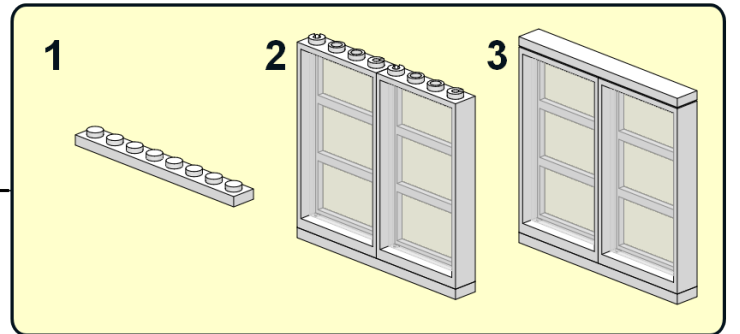
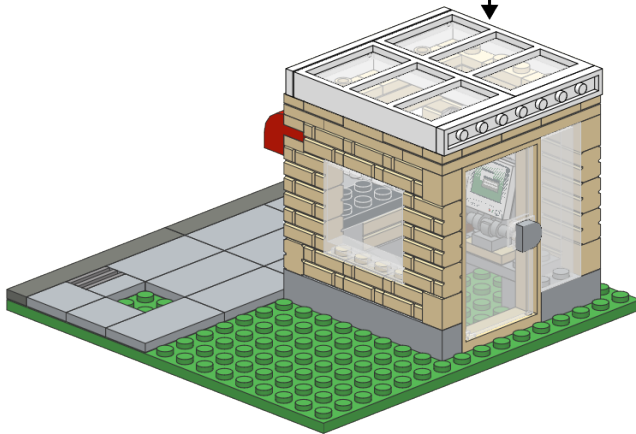
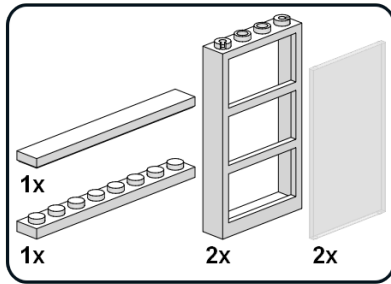
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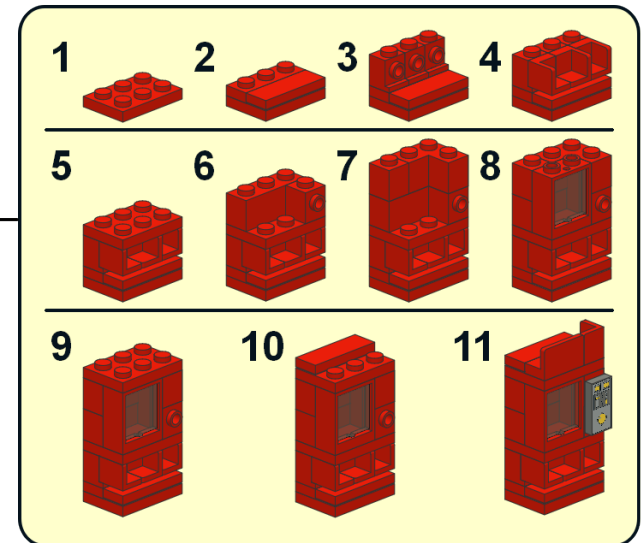
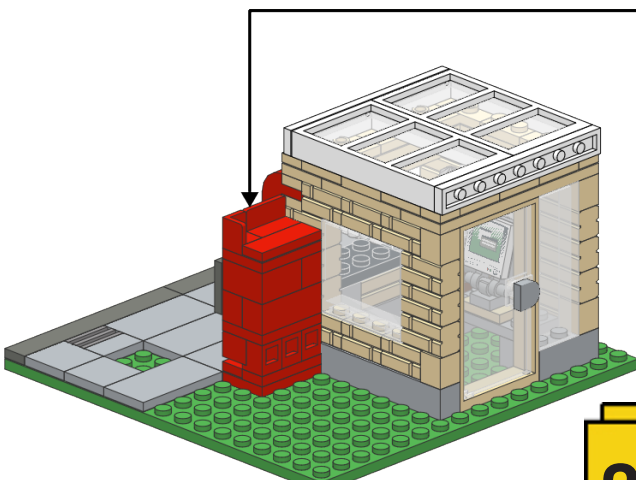
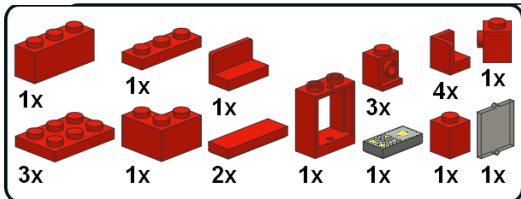
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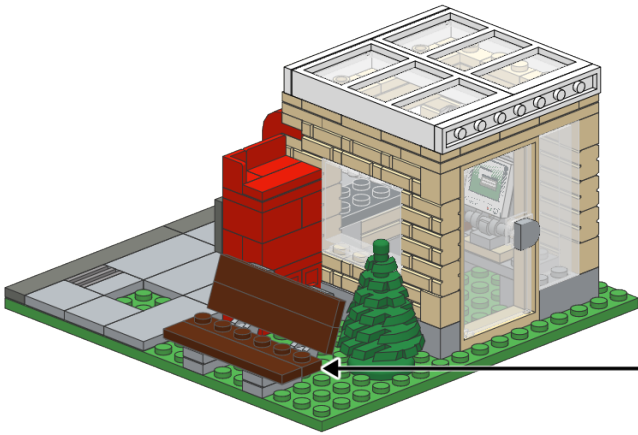
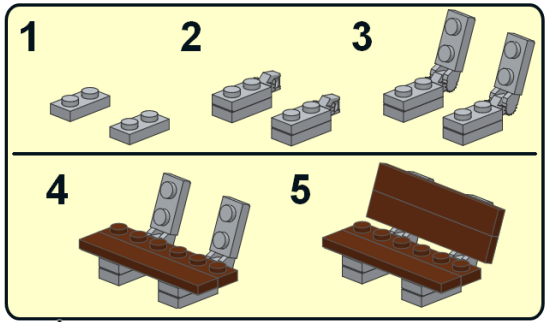
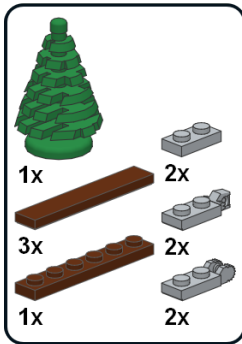
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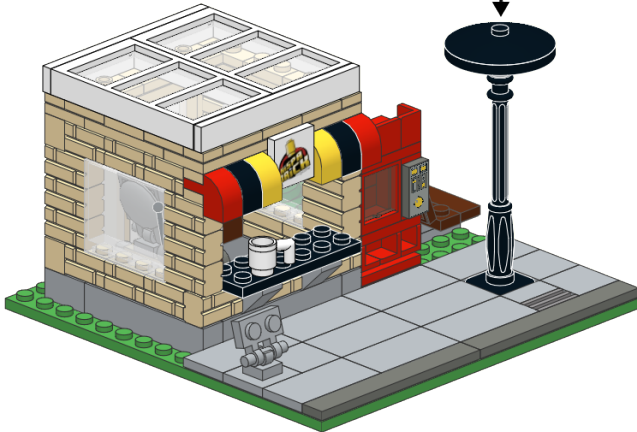
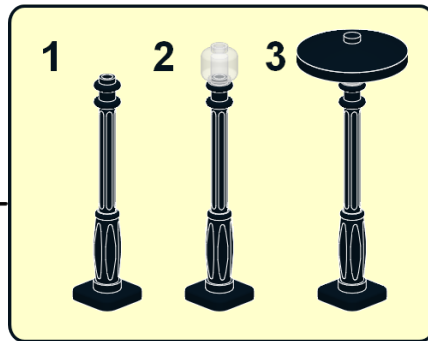
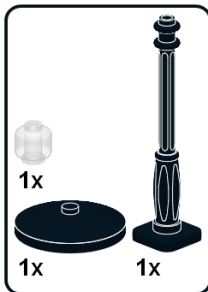
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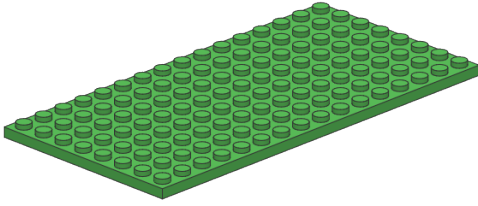
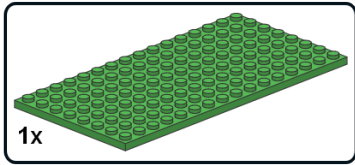
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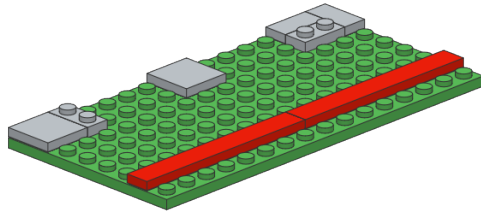
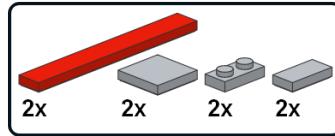
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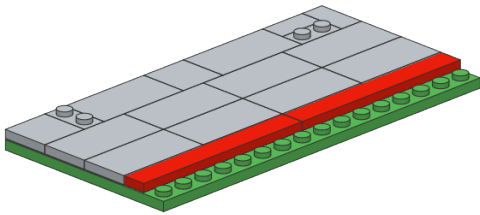
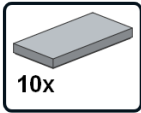
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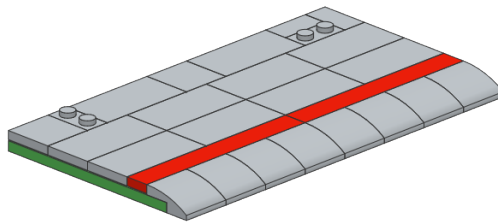
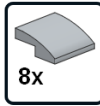
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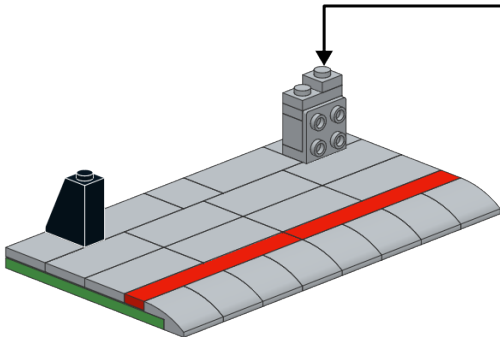
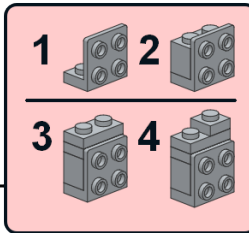
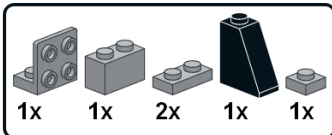
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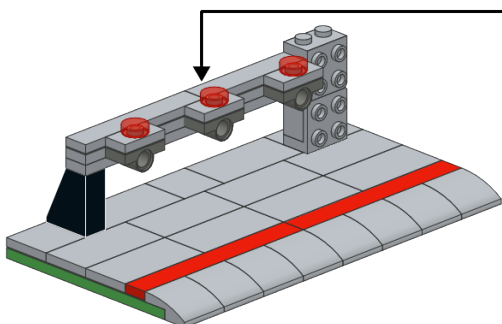
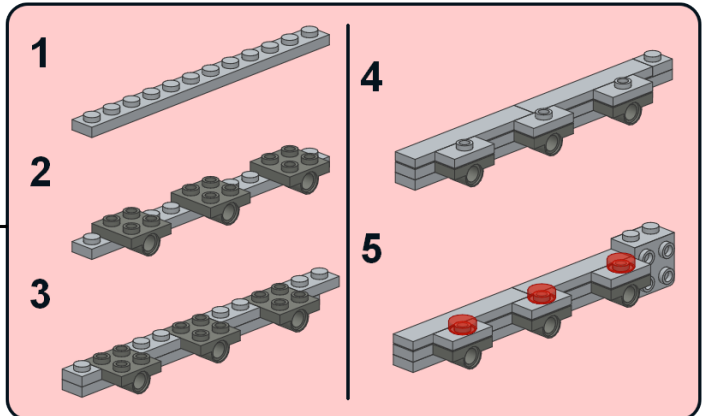
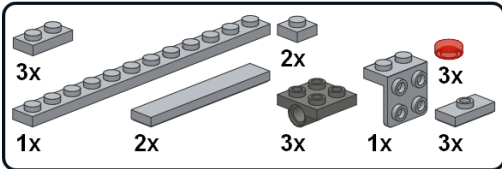
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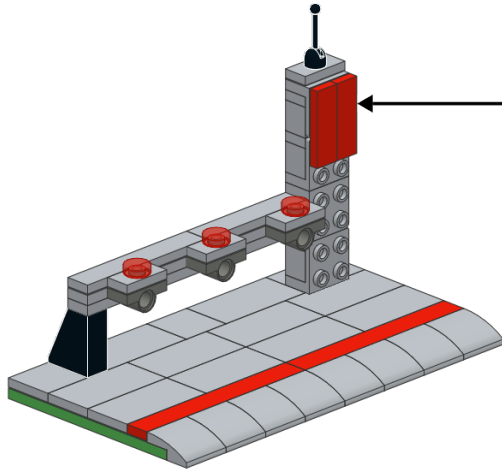
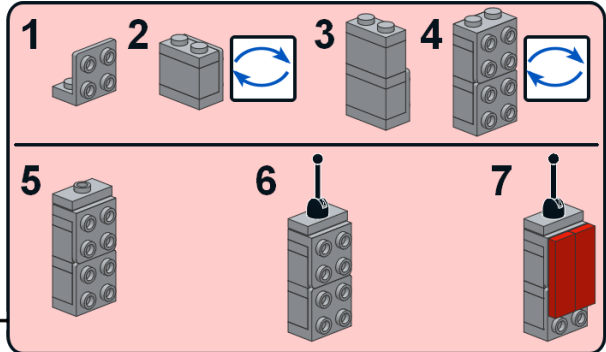
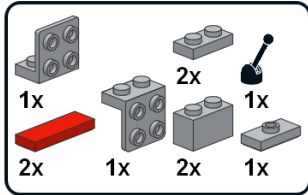
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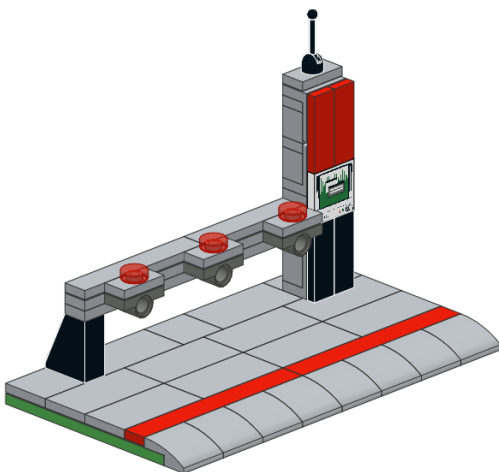
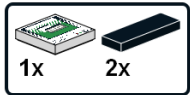
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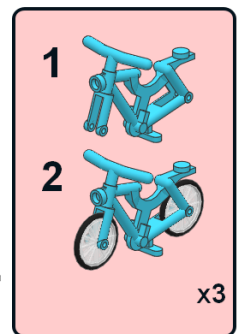
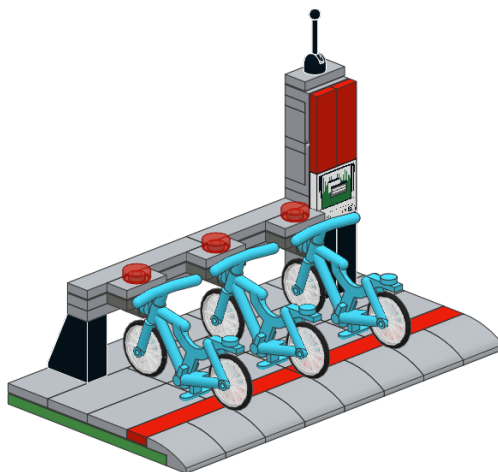
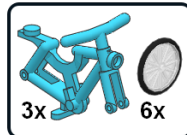
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HispaBrick Magazine® Staff

By HispaBrick Magazine®

HispaBrick Magazine® started as the project of a group of fans to preserve and show MOCs of other AFOLs in the Spanish community. Like any project, its execution and continuity are due to the hard work of a group of people who, over the years, have worked on it unselfishly and have dedicated countless hours to making HispaBrick Magazine® what it is today. Over the years some people have left and others have been added to the team, but the final result is the sum of the effort of all the people who have been part of the team, as well as all of those who have collaborated with the magazine.

Ten years ago, in May 2008, the first issue of the magazine was published. The project came about thanks to the efforts of a few people who thought it was a good idea and carried it through. In a few months, what started out as a local project ended up crossing borders, and on the request of many readers it became a bilingual project. Issue after issue the number of collaborations grew, as did the size of the magazine with the ensuing increase in work. The effort this required put a considerable strain on the team, and their daily activities - work, family, friends - suffered. This resulted in some leaving the magazine, and these changes in staff reduced the team year after year. While it is true that the number of people who collaborate with the magazine has increased, the work related to creating and producing the magazine has grown steadily and has fallen to a smaller and smaller team of people. But it has been their continued effort over the years that has allowed the magazine to continue.

We wish to thank all of the people who have been part of the magazine for their contribution, which has allowed us to get to this 10th anniversary. For this reason, and to celebrate this milestone, it is time to learn a little more about the people who are still on the team today.



10th Anniversary

HispaBrick Magazine® Staff: Lluís Gibert (a.k.a. Iluisgib)

By HispaBrick Magazine®

Images by Iluisgib



Hello readers. I was born in Barcelona, where I also live. I'm an Electronics Engineer and I work in the automotive sector.

HBM: How and when did you start participating in HispaBrick Magazine®?

LLG: I am a co-founder of HispaBrick Magazine®. Back in 2008 I was a LEGO® Ambassador and I was the first person Carlos Méndez contacted, on March 20th, to explain the idea. I was enthusiastic and accepted without hesitation. We took on the project in secret to surprise the community. Two months later, on May 23rd, we published the first HispaBrick Magazine®.

HBM: What are your responsibilities in the magazine?

LLG: During these 10 years I have worked on everything. Besides writing articles, I became the contact person with LEGO® and I tried to get interviews from employees within the company. I do translations, search for articles in the community, follow-up on articles... I currently bear the brunt of the magazine's global layout, and share the layout tasks of individual articles with Jose. Moreover, I have to be the policeman who controls the calendar, to make all the articles arrive on time. I also have part of the "public relations" role together with Jetro.

HBM: Had you done any of these things before?

LLG: Before HispaBrick Magazine®, I was responsible for the relations between the Spanish Community and LEGO®, because I was a LEGO® Ambassador since February 2007. Apart from this, I had never done layouts nor written articles.

HBM: Did you need to learn how to use the tools for any of those tasks?

LLG: I had basic notions of Photoshop, but I had to improve in this aspect. I also had to learn how to use InDesign from scratch, the program we use to do the layout. Years ago we had a problem in that we couldn't do the layouts 'in parallel', and a single person should be responsible for the entire layout task. About two years ago, checking deeper with InDesign, I was able to find a way to design the articles individually, and then put them all together to create the magazine.

HBM: Talking about all the tasks that are carried out in the magazine, what are the ones you like the most? And the least?

LLG: It will sound a bit contradictory, but what I like the most and least is to compose the final layout of the magazine. It is a long process, heavy and tedious. Now that the magazine is published in three languages, it takes me a whole weekend to do all of them. But the satisfaction of finishing the work, to have the magazine ready to publish and to start the distribution of press releases compensates for all the suffering :)



HBM: Are there any tasks you would like to do but haven't had a chance to work on yet?

LLG: I think there's nothing that I have not done yet ...:D

HBM: What do you think of the rest of the people who make up the staff of the magazine?

LLG: Do I have to be politically correct? ;) We are a group of friends that try to keep the magazine alive. I think the thing that defines us is the good vibes, companionship and our passion for the hobby. We not only do the magazine, but also get together to organize events. Since we are spread across the Spanish geography, the magazine is coordinated through the internet. The events serve to allow us to meet in person, to discuss some issues of the magazine and, above all, laugh very much.

HBM: Many people don't know how much work it takes to create a free fan magazine. Does it really take that much work to get each issue published?

LLG: Yes, there is almost no rest. When we launch a new issue, after about 2-3 weeks we start looking for articles for the new one, we consider which sets we could review... From here it's a race against the clock. We all have our lives, jobs, problems... and that is difficult to achieve. We usually close the reception of articles around 4-5 weeks before publication. From that moment the corrections, translations and layout happen... Each issue has between 20 and 30 articles, so we have to design about 60 articles in a month. We create the layout of the articles in one language, but replacing the text in another language does not directly transfer to a completed translated layout. Articles in Spanish are longer. That's why I always try to do the layout first in this language. When replacing the text with English, I must increase the size of the images so that there are no blank spaces, which would otherwise be very ugly.

HBM: Of all the criticism and praise you receive, what has most surprised you or drawn your attention?

LLG: Maybe the 'praise' that always catches my attention is when somebody tell us we must be a big team. They are always surprised when I say we are just four people bearing the brunt of the magazine.

HBM: It's been ten years since the first issue. How do you see the evolution of the magazine since then?

LLG: I think the magazine has evolved in visually, but still maintains the essence of being a magazine made by AFOLs for AFOLs. Obviously this evolution has occurred because we have learned the use of design and layout tools, we have improved in taking pictures and writing articles... but we have tried to keep the clean and simple aspect of the magazine's layout. We want the written content to be just as important as the visual presentation. That's why we don't use designs with really colorful or ornate backgrounds. That would distort the message the author wants to give through their content.

HBM: It all started as a local format designed to preserve and publicize MOCs by Spanish AFOLs, and now the magazine is published in three languages and read all over the world. What do you think has caused this evolution?

LLG: We always tried to offer a wide variety of content. Although we do not forget the hot news, we look for content that shows the richness of our hobby. For example, we are the only magazine with regular content on Technic or Mindstorms, especially with tutorials and technical articles. We always look for unique content that offers added value for our readers. We don't have advertising, although some proposals do come to us. All our work is voluntary. And I think this is also the reason why when we ask an AFOL to collaborate we always get an affirmative answer.

HBM: After ten years you are still going strong. Have you ever thought there wouldn't be a next issue?

LLG: There have been several moments of crisis, mainly when people who performed key tasks have stopped collaborating.



We had to redistribute tasks, learn to do things we didn't do... Over the years we have learned that knowledge of how things are done must be distributed among all, and I think our team is stronger now.

HBM: What do you believe are the best qualities of the magazine?

LLG: As I said before, I think that being a free magazine without advertising gives us an advantage. AFOLs, in general, are happy to collaborate with us and know that even if they make an effort, we will not take advantage of it. All the effort reverts back to the community. I have seen people at events proudly displaying the magazine with their model on the cover. I think that says a lot about what we have achieved...

HBM: What would you like to improve in the magazine?

LLG: Well, there are always things to improve. But I think that for a project of this kind we have a quality that is more than acceptable in many aspects. Step by step we are incorporating small features such as indexes and links in the pdf, which make life easier for our readers. In general, I'm satisfied.

HBM: You always mention in the magazine that its continuity is possible thanks to the collaboration of those who send in articles. Is that really such an important factor?

LLG: It's fundamental! Without all those people who we contacted because their work has attracted our attention, those who offer us or suggest to us articles, the magazine would not have any traction. If we had to write all the content, it would be a very boring magazine, and its periodicity would be... null. Thank you to all our contributors!

HBM: Of course there are also regular collaborators. What can you say about them?

LLG: The great work from our regular collaborators allows us to have a link between one magazine and the next. With all the tutorials and series of articles that they write, we are able to build loyalty with readers who wait for each issue to continue reading about their favorite topic.

Special mention to our cartoonist Jesús Delgado (Arqu medes). He started his comic strip at issue number one, and since then he has never failed, although it has sometimes been difficult for him to reconcile our calendar with his daily life. I thank him especially for his fidelity, dedication and, above all, his caustic sense of humor that has always been able to reflect the feeling of the community at every moment.

I also want to thank the 'invisible' collaborator – those who do not write articles or show large MOCs. But without them we would not be able to exist either. They are people who act as translators, proofreaders and perform content management. Two examples are Adrian Barbour (English proofreader) and Oton Ribic (link with the Croatian team).

HBM: You have also written articles and done interviews with people from the LEGO® company. How do you see your relationship with the company?

LLG: From this point I'm feeling a little responsible. I started as LEGO® Ambassador in 2007 and when we started the magazine, I immediately contacted LEGO® to let them know our intentions and ask for their collaboration. I guess they had a bad day at LEGO®, since they showed their immediate enthusiasm and we started working with them to get content. During these ten years I have met and interviewed many LEGO® employees, and that has helped LEGO® to recognize our work, and when they are asked about HispaBrick Magazine®, it doesn't sound like Chinese.



HBM: As the motto of the magazine says, it is a magazine made by fans. So in addition to making the magazine you also like to build with LEGO®. What are your favourite LEGO® themes?

LLG: I have always said that my beginnings with the LEGO® were not common. As a child I had a lack of mobility in my hands. We could say that my hands were 'clumsy'. My parents bought me my first LEGO® set (no. 6610) to make my hands work. I think that small set, and especially its minifigure, created a feeling that has lasted for 38 years. I guess that's why the Town / City line is my favorite. It's what I played with as a child and it's the theme for which I build dioramas now. I also like other more modern lines like Speed Champions or Star Wars, but never with the same passion I have for the City theme.

HBM: Is there any theme or set you would like LEGO® to make?

LLG: Yeah, of course. For example, I would like to see the Sagrada Familia of Barcelona in Architecture scale. I made my own interpretation of the building since I doubt LEGO® will launch that model due to it being a church, although I believe that today it is better known for its architecture than for its religious character. Continuing with buildings in my city, I would like to see some modernist modular buildings – either La Pedrera or Casa Batlló, both of which are icons of Barcelona. On a more generic level I would like to see a large modular airport.

HBM: Is there life beyond the magazine and building with LEGO®?

LLG: Yes, there is life! If I dedicated all my time to LEGO®, I think my wife would have packed her bags :). We love to travel, whether on the other side of the world or more local tourism. We love to immerse ourselves in the culture of the country we

visit. We try to combine the best-known tourist attractions with the daily life of the people who live there. Also for many years I have been linked to the world of motor sport, collaborating with the organization of races of all kinds, from Formula 1 and MotoGP to local championships.

HBM: Do you think you will still be making the magazine in another ten years?

LLG: Ten years ago I would never have said that today we would be here, so I prefer to keep thinking the same about the future. It has not worked out badly at all!

HBM: Throughout these ten years there must have been many anecdotes. Could you share some?

LLG: There are many, from people who write to us thinking that we are the LEGO® company, or people who address us as if we were employees. But I probably think that the most exciting moment of the last ten years was when I asked five questions of Mr. Kjeld Kirk Kristiansen, owner of LEGO®. It was crazy, but I sent the five questions. The answer shocked me – not only I was going to have my questions answered, but it was going to happen over the phone. He gave me an appointment and we had an interesting call of about 30 minutes.

HBM: Finally, what would you like to see in the magazine?

LLG: Call me daring, but the fortune of being able to ask five questions of Mr. Kjeld Kirk Kristiansen made me a little ambitious. After a couple of years I prepared a full interview with the hope of one day being able to do it. So far I've been trying for five years and I've received three denials. But I will not give up. When there's a will there's a way!

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HispaBrick Magazine® Staff: Jetro de Château (a.k.a. linmix)

By HispaBrick Magazine®

Images by linmix



Hi. I'm from Holland, but I've been living in Spain for more than 20 years. I am a language and robotics teacher as well as a translator.

HBM: How and when did you start participating in HispaBrick Magazine®?

JdC: When Lluís told me about the idea for the magazine I immediately volunteered to participate with an LDraw tutorial I was working on. When we realised how much interest there was for an international version I started to coordinate the translation of articles. Shortly after that I became a member of the staff.

HBM: What are your responsibilities in the magazine?

JdC: In addition to coordinating and supervising the translation effort, I take care of the topics related to MINDSTORMS, Technic and digital content (LDraw, LDD, etc.). I'm always on the lookout for collaboration opportunities in these fields and appreciate every proposal we get. I am also in charge of liaising with the Croatian team and keeping our internal workflow up to date. Of course I also write articles and reviews. I am the ambassador for HispaBrick Magazine® on the LEGO® Ambassador Network (LAN) so I am in charge of most of the communications between HBM and the LEGO® company.

HBM: Had you done any of these things before?

JdC: I was already working as a translator, and as a teacher I always make sure my materials are accessible to my intended audience. But there are many tasks I have had to learn as I went along.

HBM: Did you need to learn how to use the tools for any of those tasks?

JdC: One of these days I have to learn more about InDesign...

HBM: Talking about all the tasks that are carried out in the magazine, what are the ones you like the most? And the least?

JdC: I enjoy writing tutorials as those are the result of my own learning process. Normally they centre on subjects I am passionate about. At times I really loathe translating, but not because of the work itself, but because of the enormous amount of work involved.

HBM: Are there any tasks you would like to do but haven't had a chance to work on yet?

JdC: I have barely done any layout work, although I did some on a different publication many years ago, using different tools. For now I have more than enough work translating so I don't need to go looking for more.

HBM: What do you think of the rest of the people who make up the staff of the magazine?



JdC: I think what defines our team is implicit trust. There is always a good vibe and although there are of course better and worse moments, at the end of the day we are still a group of friends sharing the same passion. That becomes especially palpable during the few times a year we physically meet for an event.

HBM: Many people don't know how much work it takes to create a free fan magazine. Does it really take that much work to get each issue published?

JdC: Some of the tasks related to the magazine are more a matter of constancy than of time: cultivating contacts, getting articles to be handed in, keeping an eye on the quality of the text and images. There are other tasks that require more time and concentration but which take up a limited time, like writing articles, reviews and tutorials. When it comes to reviewing and translating I really lose all notion of time. It makes no sense to translate a poorly written text, and improving it not only impacts the language it was written in but also the translation. When it comes to translating it's even harder to maintain a balance. Often the work accumulates in the last few weeks before we publish the magazine, but I also need to set aside time for my paid job and my family. It would be impossible to dedicate all the hours required to get perfect translations so I try to make the most of the time I have available. For the last couple of issues I have had the inestimable help of Adrian Barbour who proofreads the English articles and this has meant a considerable improvement in the quality of the magazine.

HBM: Of all the criticism and praise you receive, what has most surprised you or drawn your attention?

JdC: I love it when a lone AFOL discovers the magazine and realises there are a bunch of back issues for them to read too. Hearing something like that is more gratifying than many other comments. On the other hand, I am very happy our decision

not to include advertising or make money with the magazine is appreciated.

HBM: It's been ten years since the first issue. How do you see the evolution of the magazine since then?

JdC: Many things have changed, but the essential part is still the same. We make a magazine by AFOLs for AFOLs and try to touch on all aspects of our hobby. The collaboration we receive from other Fan Media and forums when it comes to announcing the magazine has allowed us to reach more and more AFOLs. At the same time this has led to us receiving more proposals for collaboration from all over the world.

HBM: It all started as a local format designed to preserve and publicize MOCs by Spanish AFOLs, and now the magazine is published in three languages and read all over the world. What do you think has caused this evolution?

JdC: I believe there are several factors. On the one hand we have been fortunate enough to be able to include articles that generate a special interest to this very day. An example is the article about the Alien MOC by the Arvo brothers that was only ever published in Spanish and in the first issue. On the other hand we filled a gap, we were constant and we were determined to make an international version in English. Another important factor is the range of personal relations within the AFOL world we have cultivated over the years and which have allowed us to be visible in many places.

HBM: After ten years you are still going strong. Have you ever thought there wouldn't be a next issue?

JdC: After every single issue :D

Each time we publish an issue there follows two or three weeks in which we don't want to even think about going

through all of that again. After that we start to miss it, we start getting ideas and we start working on the next edition. There have been a few difficult moments when our team was reduced due to personal decisions or situations affecting our (ex) members, but we have always managed to overcome those difficulties.

HBM: What do you believe are the best qualities of the magazine?

JdC: The magazine is a real showcase for the AFOL world in all its facets. We include all themes and subjects, from CITY to MINDSTORMS, from using LEGO® in the classroom to charity events. That wide scope and inclusive approach means each issue always contains something of interest for any AFOL. We are also open to all kinds of collaborations and that also helps us to present a wide range of views and subjects.

HBM: What would you like to improve in the magazine?

JdC: Although we have improved a lot, one aspect that still causes a lot of stress is our workflow. The last few weeks before we publish an issue are a mad dash, trying to fix a million things at the same time. In part, this is inherent to our format and to the fact that most of the articles are submitted right on or shortly after the submission deadline. It would be nice to be able to distribute the work over a longer period, but that is not easy to achieve.

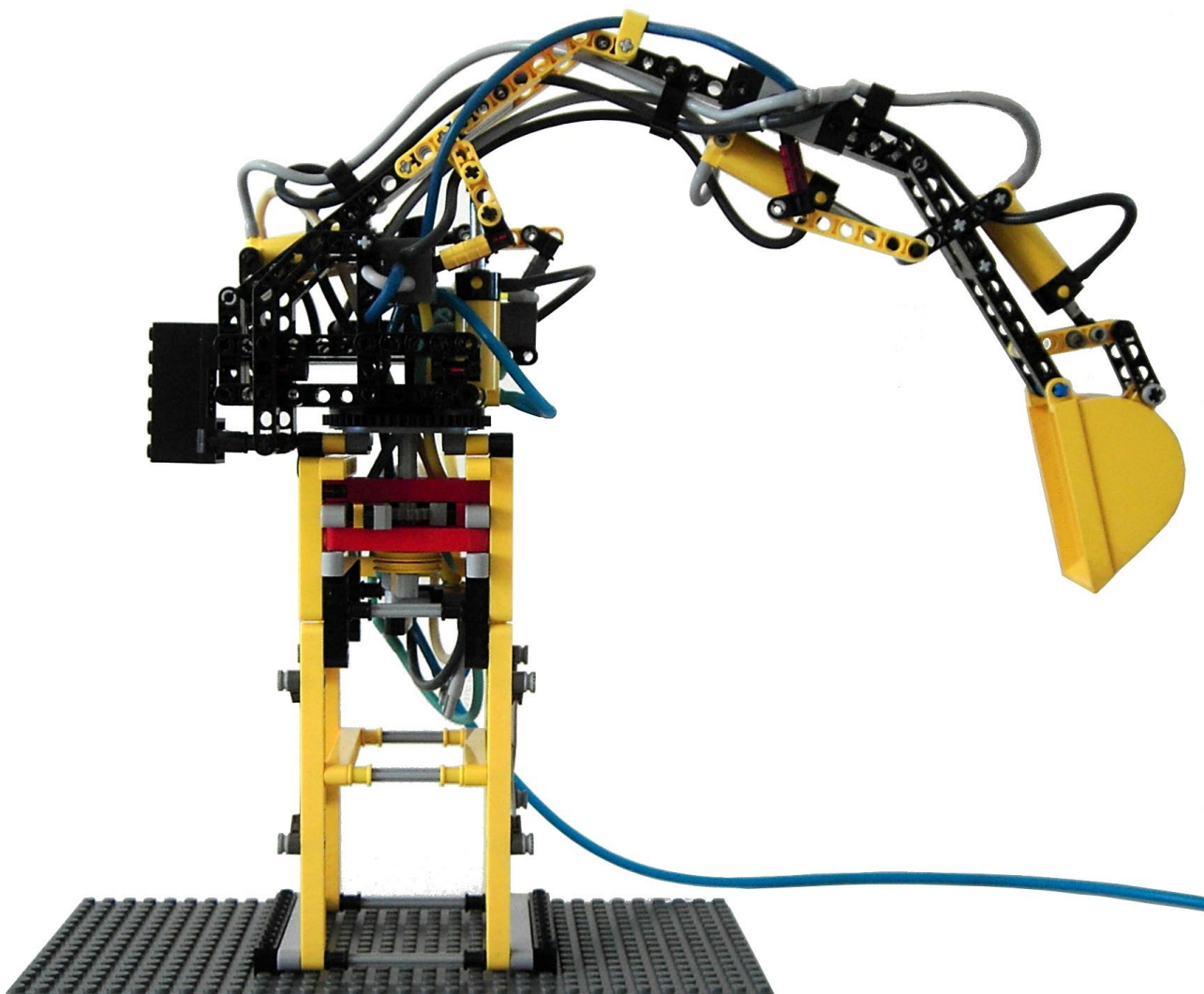
HBM: You always mention in the magazine that its continuity is possible thanks to the collaboration of those who send in articles. Is that really such an important factor?

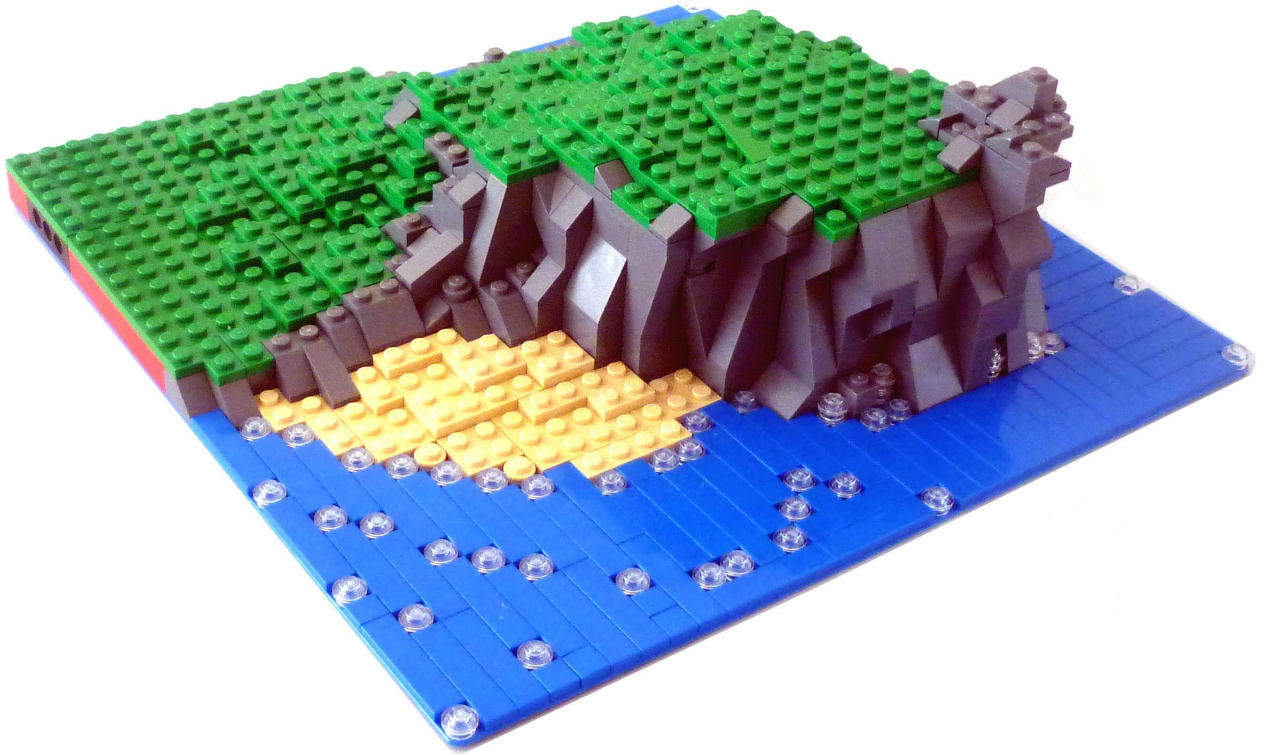
JdC: The magazine depends on collaborations. Without them we would only be able to reflect the opinions and interests of four LEGO® fans. Although we have very varied interests, collaborations always bring new points of view and subjects we would not be able to cover otherwise. On the other hand, there are also collaborations that don't immediately stand out but which are absolutely essential. I have already mentioned Adrian Barbour, but I would also like to mention Oton Ribic who coordinates the Croatian team. They are examples of collaboration that is essential to the quality and diversity of the magazine.

HBM: Of course there are also regular collaborators. What can you say about them?

JdC: Nothing good :D

The truth is, if it weren't for them... we would still keep going, but with much less force and variety. Knowing that we are not just a small team of four, but that there's a group of people who support us unconditionally to the best of their possibilities provides real encouragement. And although their work is not always in the front row, we really appreciate all the efforts they make.





HBM: You have also written articles and done interviews with people from the LEGO® company. How do you see your relationship with the company?

JdC: From the very first issue of the magazine we have had a fluid relationship with LEGO®. Jan Beyer congratulated our efforts on the first issue and that same issue also included an interview with the then general manager of LEGO® Iberia. Over the years that good relationship has materialised in many collaborations, both by allowing us to review certain special sets before they were available on the market (like the Emerald Night or the Porsche 911 GT3 RS) and also through interviews with employees. Our classification as Fan Media has allowed us to participate in the Fan Media Days which has increased the level of collaboration, and we are really happy with our current relationship with the company.

HBM: As the motto of the magazine says, it is a magazine made by fans. So in addition to making the magazine you also like to build with LEGO®. What are your favourite LEGO® themes?

JdC: My return to LEGO® as an adult was inspired by MINDSTORMS and I have been an MCP (MINDSTORMS Community Partner) for nearly 10 years. Programmable platforms and Technic are my main interest. I also love medieval sets and displays and that is where my predilection for MILS-based displays comes in. Lately I have built a few modulars as well so we'll see where that leads me...

HBM: Is there any theme or set you would like LEGO® to make?

JdC: I would love to see the return of classic medieval sets. I would also love to see a series of GBC sets as a subtheme of Technic. Otherwise, I am very interested in what is happening in the field of robotics and BLE connectivity, with WeDo 2.0 and Boost and who knows what else.

HBM: Is there life beyond the magazine and building with LEGO®?

JdC: Absolutely. Aside from spending time with my family and my students, I love to make music, alone or accompanied, and we like to travel and visit places.

HBM: Do you think you will still be making the magazine in another ten years?

JdC: As I have said before, after each edition there is a moment when you think that will be the last one... and then you get back to work on the next. As long as I enjoy doing this and there is a team to work with I will be actively involved in the magazine. For how long? Time will tell...

HBM: Throughout these ten years there must have been many anecdotes. Could you share some?

JdC: I drew a blank :)

HBM: Finally, what would you like to see in the magazine?

JdC: Although we publish a digital magazine, we are still very close to the physical format. I believe it would be interesting to become more digital and adapt the magazine further to the devices we read it on. At some point we may be able to include video in much the same way we now include images, or we may include 3D pictures... but first we will have to figure out how to make that work :D.

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HispaBrick Magazine® Staff: Jose Manuel Ruíz (a.k.a. satanspoet)

By HispaBrick Magazine®

Images by satanspoet



HBM: Hail! I'm from Barcelona and I'm a technical industrial electronics engineer, specialising in robotics and autonomous systems.

HBM: How and when did you start participating in HispaBrick Magazine®?

JMR: My relationship with the magazine started with issue 004, for which I designed the cover, and I've been a part of it ever since.

HBM: What are your responsibilities in the magazine?

JMR: I work in different areas. I write articles, I review and translate articles, and I look for possible interviews and collaborations within the AFOL community. I also do part of the layout work together with Lluís.

HBM: Had you done any of these things before?

JMR: I had never done this kind of work for a magazine so it was all new to me and I have had to learn on the go.

HBM: Did you need to learn how to use the tools for any of those tasks?

JMR: I have mainly needed to learn how to use Adobe InDesign to do article layout for the magazine.

HBM: Talking about all the tasks that are carried out in the magazine, what are the ones you like the most? And the least?

JMR: One of the things I like best is looking for articles. It allows me to interact with AFOLs from many different countries and to discover all their magnificent creations and constructions.

I also enjoy doing article layout as it allows me to develop the visual and design aspect, looking for the best way to show off the articles.

What I like least is the many hours it takes to do all the layout work XD

HBM: Are there any tasks you would like to do but haven't had a chance to work on yet?

JMR: More work? No thanks XD

HBM: What do you think of the rest of the people who make up the staff of the magazine?

JMR: That they are crazy?... and who isn't in this hobby? Over the years we have become a group of close friends, each with our own peculiarities, but with LEGO® as a nexus between us. Thanks to our commitment and enthusiasm we have managed to keep the magazine alive and that is something I am proud of.



HBM: Many people don't know how much work it takes to create a free fan magazine. Does it really take that much work to get each issue published?

JMR: It takes many, many hours and it often eats away at our free time since we are not exclusively dedicated to the magazine; this is not our job. The fact that we publish in several languages also means more work, so any collaboration we get is welcome.

HBM: Of all the criticism and praise you receive, what has most surprised you or drawn your attention?

JMR: All feedback, be it positive or negative, helps us to do a better job. I am pleasantly surprised with the praise we get for publishing a non-commercial magazine that can be downloaded free of charge.

HBM: It's been ten years since the first issue. How do you see the evolution of the magazine since then?

JMR: Over the years, the magazine has evolved in many ways. We have lost some collaborators, but we have also gained many others. As for the number of articles, this has increased and we have been able to incorporate a multitude of subjects related to LEGO®. This has allowed the magazine to become bigger and bigger with each issue.

During the first years getting an issue out was harder as we needed to gather a minimum number of articles. Currently we need to be selective and sometimes discard material or leave it for a future issue.

We have also seen how we have gained in reputation internationally. In the beginning when we reached out to an AFOLs we needed to explain who we were and why we wanted them to collaborate with us in the magazine. Today,

when we contact people they already know who we are and are delighted to collaborate with us. We also started to get requests for collaboration, which is something that was unthinkable when we started out. Another evolution in the magazine relates to its design and style. Over the years we have tried to find the best way to present the articles and sections of the magazine.

HBM: It all started as a local format designed to preserve and publicize MOCs by Spanish AFOLs, and now the magazine is published in three languages and read all over the world. What do you think has caused this evolution?

JMR: I think it is all about the breadth of content. We talk about practically everything that is related to LEGO®. That means that AFOLs who are specialised in different things are interested in the magazine. The fact that we publish in different languages also helps readers in different parts of the world to enjoy our content.

HBM: After ten years you are still going strong. Have you ever thought there wouldn't be a next issue?

JMR: We have gone through that at times. Especially when there have been changes in the staff... but we have always kept going ;)

HBM: What do you believe are the best qualities of the magazine?

JMR: The variety of themes we cover, which means our content is of interest to a large variety of AFOLs. I believe another important point is the fact that the magazine is free and made by and for AFOLs.

HBM: What would you like to improve in the magazine?



JMR: We are always trying to improve things, but I am happy with what we have achieved so far.

HBM: You always mention in the magazine that its continuity is possible thanks to the collaboration of those who send in articles. Is that really such an important factor?

JMR: It is vital. Without the help and collaboration of all the people who participate in the magazine it wouldn't be possible to publish it. That is why we are so grateful for any collaboration we get.

HBM: Of course there are also regular collaborators. What can you say about them?

JMR: I can only thank them for their collaboration as it is because of this that the magazine is still here. All of them are a part of the magazine.

HBM: You have also written articles and done interviews with people from the LEGO® company. How do you see your relationship with the company?

JMR: Our direct relations with the LEGO® company are the responsibility of our ambassador Jetro and our co-founder Lluís, and from my point of view they have managed to transmit what HispaBrick Magazine® means and what our goals are. To date our relationship is good and we hope to continue this way going forward.

HBM: As the motto of the magazine says, it is a magazine made by fans. So in addition to making the magazine you also like to build with LEGO®. What are your favourite LEGO® themes?

JMR: I started out my LEGO® hobby in my infancy with the 6683 Burger Stand, and my preference lies with Classic Town. As any self-respecting geek I love Star Wars and The Lord of the Rings. I am also interested in Castle, modular buildings and Architecture.

HBM: Is there any theme or set you would like LEGO® to make?

JMR: Of course, a Steampunk theme would be ideal. And since we are asking... how about a re-edition of the 6399 monorail?

HBM: Is there life beyond the magazine and building with LEGO®?

JMR: Certainly! As a film fan, I run a website dedicated to cinema in general and the Fantastic Film Festival in Catalonia in particular. I like travelling and whenever I can I will go on a trip to visit new places. And then there is music... concerts and many hours of music are an essential part of my life.

HBM: Do you think you will still be making the magazine in another ten years?

JMR: At the moment I am part of the staff. I want to continue collaborating, but who knows what the future brings?

HBM: Throughout these ten years there must have been many anecdotes. Could you share some?

JMR: It never ceases to surprise me when we get an email from someone thinking we are the LEGO® company, especially when they write to ask for a job with the company.

HBM: Finally, what would you like to see in the magazine?

JMR: Maybe a review of a re-edition of a classical set... the 6399 for example? XD
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HispaBrick Magazine® Staff: Antonio Bellón (a.k.a. Legotron)

By HispaBrick Magazine®

Images by Legotron



Hi. I am Antonio (Legotron). I'm a physicist and an electrical engineer, but I work as a software developer. I live in Getxo, a town in the North of Spain. My favourite LEGO® themes are Star Wars, Castle and military vehicles from WWII.

HBM: How and when did you start participating in HispaBrick Magazine®?

AB: I have participated from the first issue. Carlos, one of the founders, got in touch with me in 2008 with the idea of creating a magazine. I liked the idea, but since I was already very busy with other things, I only offered to collaborate writing some articles, since I did not have any experience editing or producing magazines. As more issues came out, in addition to writing my own articles I started to correct and translate materials and in time I became part of the staff. For practical purposes, you could say I have been with the magazine from the start.

HBM: What are your responsibilities in the magazine?

AB: That depends on the time I have available. Right now, I write articles, especially with relation to MILS, I help with the graphics, translation from English to Spanish and corrections. I also look after statistics and download control. In some issues I have had more time and specifically when Carlos left I took over the layout work.

HBM: Had you done any of these things before?

AB: No. I had collaborated correcting articles about history, but was nothing compared to what it means to edit a magazine. It is not just the layout; you need to write articles that can be understood easily, correct and translate them - that is a lot of work and not at all easy.

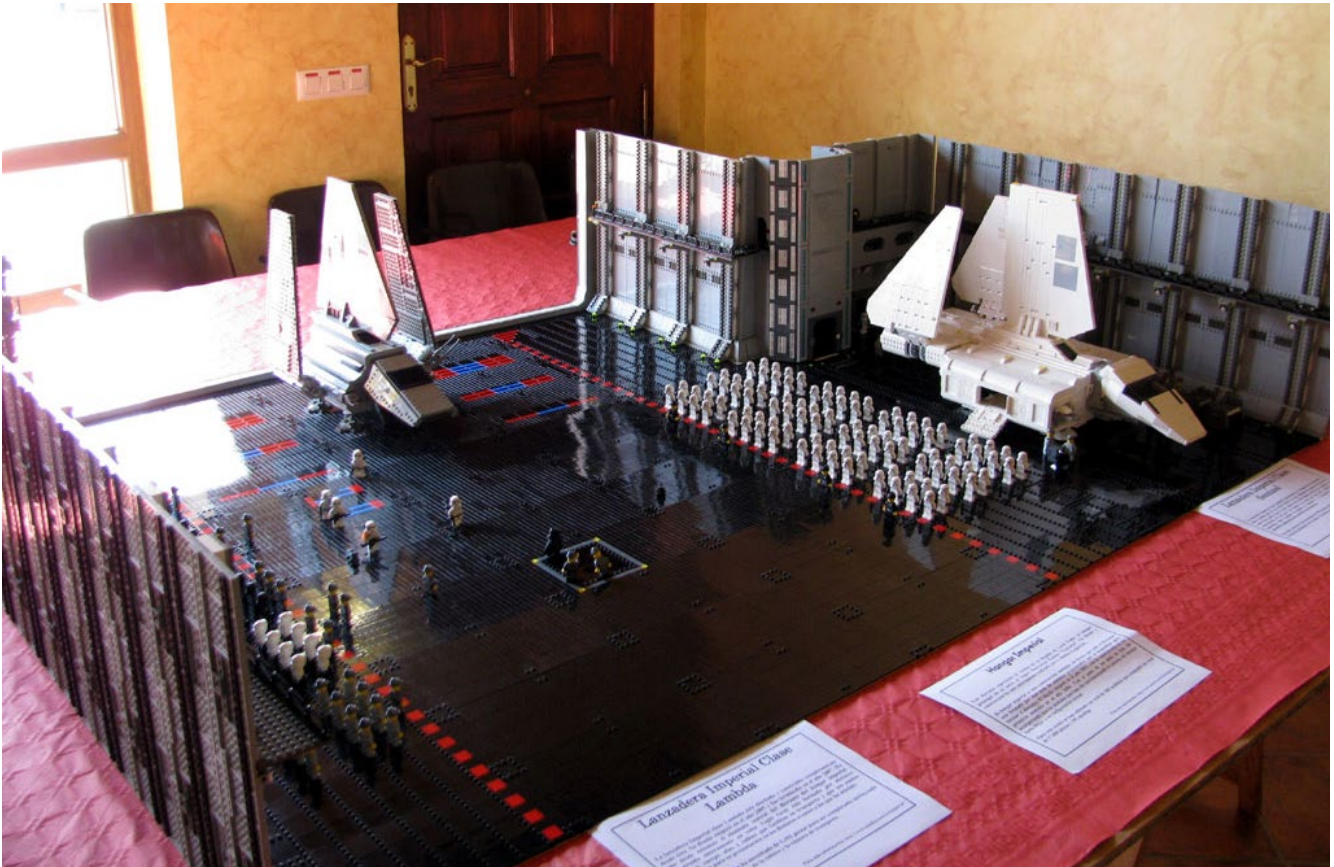
HBM: Did you need to learn how to use the tools for any of those tasks?

AB: Fortunately I already knew how to use Photoshop, which came in handy, on the one hand for the graphics and on the other for editing many pictures - the equipment and lighting conditions under which many pictures are made are not ideal and the pictures we receive sometimes need some work. I also needed to learn how to use Scribus, the software we initially used for the layout work. Scribus is a single user software, which meant a single person needed to do the layout of the whole magazine in both languages. Fortunately Lluís figured out how to do the layout with InDesign in such a way that several people can work on it at the same time, but I have not had the time to help with this new format.

HBM: Talking about all the tasks that are carried out in the magazine, what are the ones you like the most? And the least?

AB: I know what I like least: public relations. I am really bad at that. Thank goodness the team has Lluís, Jetro and Jose for those tasks.

I don't like translating much either, as that takes up a lot of time.



What I like best is writing my own articles, which can be hard, because need to have something to write about and then know how to put it into words. When you have the time it is quite entertaining. Another thing I also like collaborating with the graphics, maps or editing images.

HBM: Are there any tasks you would like to do but haven't had a chance to work on yet?

AB: Hmmm, I don't know. I think I have done most of them. I would love to be able to create a comic strip like the ones Jesús (Arqu_medes) makes. That is something I don't know how to do and it could add a lot to the magazine. Being able to add a couple of cartoons or fun drawings to the magazine would make it just that little bit more friendly.

HBM: What do you think of the rest of the people who make up the staff of the magazine?

AB: They are the real reason the magazine is still alive. If it weren't for their commitment and the time and energy they have put into it over the years, the magazine would have ceased to exist a long time ago. Anyone who sees how we plan and organise the work might think something like that can't possibly work and wouldn't last long, but we've been here for ten years now... It is clear that our work on the magazine is firmly based on our friendship, and to an important degree, the success of the magazine comes from the fact that each one of us does what needs to be done, without discussion, simply because together we have decided this is what we want to do. If we had to spend days or weeks discussing what to put into the magazine and what not and in what order it would be impossible to make it work year after year. All our opinions have the same weight, but most importantly we never try to impose our own criteria on the rest of the staff.

Once again I need to mention Carlos, who, for many years has been at the helm of this endeavour and has been the driving

force for all of us. He put up with for many years and it was a great loss when he left the magazine.

HBM: Many people don't know how much work it takes to create a free fan magazine. Does it really take that much work to get each issue published?

AB: The worst part of it is that of the three issues we publish each year, two coincide with our events which means we are preparing the event and working on the magazine at the same time. Sometimes after we finish the magazine and the event we need to disconnect from it all and it takes an effort to get back into gear. We need a couple of weeks rest before we continue the work. We start off lightly and in the end it always turns into a race to get everything done. It is easy to think that if we were 100% concentrated from the start we wouldn't be so swamped at the end, but then it would stop being a hobby and become an obligation. Those breaks are important and in my case those are the periods when I build most, since I completely disconnect from my other obligations and just enjoy building.

It is hard and tiresome work to get the magazine published, but we do it because we like it and we can't put too much strain on the team or more of us would end up leaving. As the team that makes the magazine has become smaller the size of the magazine has become bigger. In addition to the work on the magazine we write our own contributions. It isn't always easy to get your thoughts out on a piece of paper. And when you contact someone and ask them to send you an article it takes time to coordinate everything, make sure the article is well structured and has sufficient quality for the magazine, request pictures, ask for things to be modified if they are unclear, etc. Sometimes you program an article for an issue and you run out of space, because there are already too many pages in the magazine, or there is another article on a very similar subject in the same issue. When you have everything you need to check it again to get it ready for translation. The first full layout

is done in Spanish and then we do English and Croatian and we take care to make sure the translations match up page by page. When everything is ready sometimes we realise the pages are not correctly numbered or some pictures are blurry. We have even forgotten to include an article that planned and ready. At other times we have had to remove some content to make space for a last minute addition that took up more space than we anticipated.

HBM: Of all the criticism and praise you receive, what has most surprised you or drawn your attention?

AB: The nicest thing is seeing that people enjoy the magazine and encourage us to keep on making it, and recognise all the work that is involved.

There has been criticism, especially at the beginning, that has helped us to improve the content and layout of the magazine.

However, there are times when the criticism is absurd because it insists on improving the look of the magazine or on improving things that would make it more commercial, because some compare it to "professional" magazines. At those times you think: you get over 100 pages of content, ad-free, in a language that is not our own and on top of everything it is free... why would we want to be more commercial? We are not perfect and sometimes mistakes slip into the magazine, but this is a fan-made magazine and the important thing is showing all those things that are related to this universe of LEGO® constructions which we as fans find interesting.

HBM: It's been ten years since the first issue. How do you see the evolution of the magazine since then?

AB: I believe that as far as the content and the format is concerned, the evolution has been very important and significant. The first issues didn't have a very high graphical standard and included pictures that were low quality. The format was contained a lot of wasted space with large fonts and a lot of white space. Over time we have improved and now it is nicer to look at and we have more content.

As for the spirit of the magazine, I believe we are still on the same path we set out on when we started. As a matter of fact we have received offers to use the magazine to promote certain stores, but we have always refused this squarely. We want this to be a magazine made by AFOLs who show off their own creations or interview other AFOLs, or review LEGO® sets. Ultimately it is all about talking about LEGO® constructions and everything related to LEGO®.

HBM: It all started as a local format designed to preserve and publicize MOCs by Spanish AFOLs, and now the magazine is published in three languages and read all over the world. What do you think has caused this evolution?

AB: I don't know. The truth is, it started out as a magazine that was full of the cliches and stereotypes that were common in Spain at the time, and at the beginning the magazine was Spanish only. It was only at the third issue that we had an English version and that meant a big leap forward, even though some of our first translations were quite bad! But from the very first issue there were people from different countries interested in the magazine. As a matter of fact, one of the recurring requests we get is for a translation into English of our first two issues!

The reason for this evolution may be the fact that we wanted to tell things from the point of view of the fan, with the kind of language every AFOL uses, focussing on LEGO® instead of on creating the perfect article. Another reason might be the content. We don't have fixed quotas for each theme - this % for Technic, that % for City, etc. We simply include everything we find of interest in each issue.

Also, the fact that we have collaborators from all over the world opens up doors since each time someone collaborates in the magazine they encourage members of their LUG to have a look at the magazine to read their article and then they end up reading all of it.

HBM: After ten years you are still going strong. Have you ever thought there wouldn't be a next issue?

AB: To be honest, there have been several times when we have come close to calling it quits. After all this is something we do on a voluntary basis. When certain key people left our team that has seriously reduced our work capacity. La marcha de personas clave del equipo han mermado muy seriamente nuestra capacidad de trabajo. In the end we have solved this redistributing the work and that of course means everyone needs to do a little more. This was especially true when Carlos left - who was in charge of the layout of magazine for the longest time. There was another critical moment when I was in charge of the layout. At one point I was overloaded. It coincided with a period in which I had a lot of work and I couldn't continue working on the magazine so I had to hand over the layout task to my colleagues. Thanks to the efforts of Lluís, Jose and Jetro we managed to publish the magazine. That is teamwork!

HBM: What do you believe are the best qualities of the magazine?

AB: In my opinion it is that we are still a magazine made by fans. After all we are the ones "forcing" ourselves to make it and and who decide what we put in it. We do not depend on other people who could demand things, because we are a free magazine so no one can limit our capacity to decide. That allows us to plan the content according to our own criteria, and even to delay a publishing date if we don't have enough time to finish it by the date we initially set.



In addition, since we decide what articles from our collaborators will be included in the magazine we don't have a commercial bias. We like to include the kind of article we find interesting as AFOLs or that attract our attention. On the other hand, since there is no "monetary compensation", most of the article proposals we receive for the magazine are from AFOLs who are really interested in collaborating with the magazine and getting an audience for their creations. You can really notice that in the articles as they are oriented towards describing constructions and not towards getting votes on LEGO® ideas.

HBM: What would you like to improve in the magazine?

AB: The time I can dedicate to each issue. In general, I believe the magazine is quite good, considering how small our team is and that it is made by a bunch of LEGO® fans. What I hate most is seeing how much work the rest of the team puts into the magazine and not being able to dedicate more time to improving the magazine.

HBM: You always mention in the magazine that its continuity is possible thanks to the collaboration of those who send in articles. Is that really such an important factor?

AB: Absolutely! It is fundamental! If we had to generate all the content of the magazine we would have run out of ideas and topics to talk about a long time. We would be repeating the same things over and over again and our readers would tie of the magazine.

Collaborators bring in new and very varied subjects. Their articles are really interesting and discuss things we would have never imagined were related to the LEGO® hobby. LEGO® is much more than the constructions that are made with it. There are people doing therapy with it, or art, who have made it their job, or who simply collect. But all of that is relevant to the magazine! Also, we get to know the people who work for the company, their points of view, meaning we cover a wide variety of aspects related to the LEGO® hobby.

It also allows us to get to know some of the constructions that have amazed us in close-up, because their creators show them to us and that is a real privilege.

HBM: Of course there are also regular collaborators. What can you say about them?

AB: The work of our regular contributors is also very important. They help us to translate, writing tutorials, comic strips... They are to be credited, because they help us to keep this project going. Without their help the magazine would have disappeared a long time ago. A big thanks to all of you!

HBM: You have also written articles and done interviews with people from the LEGO® company. How do you see your relationship with the company?

AB: The relationship with the LEGO® company are the responsibility of Jetro and especially Lluís, so I think they are in the best position to answer this question. There is no doubt the relationship is cordial and that we get help obtaining the materials we need for the magazine: interviews with managers and employees and participation as a recognised Fan Media in activities LEGO® organise, like the inauguration of the LEGO® House.

Our magazine is exclusively dedicated to discussing all things LEGO®, so it is important to keep this good relationship.

HBM: As the motto of the magazine says, it is a magazine made by fans. So in addition to making the magazine you also like to build with LEGO®. What are your favourite LEGO® themes?

AB: To be honest I have always been centered on the themes I liked when I was little. I came out of my dark ages thanks to Star Wars, although rather than building sets, what I really liked was build my own models and dioramas. As a matter of fact, the first constructions I showed at a LEGO® exhibition in 2005 were mi Star Wars MOCs. Later on I started to add medieval constructions, another one of my "passions" from youth.

Finally, I started Panzerbricks, with military vehicles from the Second World War - as a child I used to build scale models of those vehicles. It was Panzerbricks that led me to develop the MILS system, because I needed to be able to change the scenery for my constructions and I thought it was too much work to build them up from scratch each time I wanted to take a new picture.

HBM: Is there any theme or set you would like LEGO® to make?

AB: Ha, ha, ha... I think I am the least appropriate person to ask that question. I would like so many things I don't even know where to start.

Rather than a particular theme, I would probably like to see more generic sets. I tend to buy individual parts rather than sets and the LEGO® catalogue strikes me as boring. There are many themes that are completely focussed on the minifigs and there is little of interest for an AFOL like me. I do love minifigs! I would like to see sets with constructions like the modulars of the Medieval Market in different themes, especially in the classical themes like the West, Classic Space, Pirates, etc.

HBM: Is there life beyond the magazine and building with LEGO®?

AB: Obviously my family takes up a prominent spot and my job takes up a lot of time too. I believe it is important not to be centered just on building with LEGO® and the magazine, so it doesn't become a burden. That is why, a few years ago I became a member of the 501st Legion (Spanish Garrison), whom I greet with these lines! I participate in charity events with them as well as in parades, under the orders of Lord Vader, and it is an incredible experience!

There is not much more, because I would need a 30-hour day to fit in more things

HBM: Do you think you will still be making the magazine in another ten years?

AB: If the magazine continues in the format it is in now and I have time for it, I hope so!

HBM: Throughout these ten years there must have been many anecdotes. Could you share some?

AB: There have been many. I remember we mixed up the magazines and we put the Spanish edition up for download in English. I remember one occasion when we confused the download links for the different language editions and we got a flood of messages from people saying the magazine was in the wrong language.

On occasion we have had issues coordinating articles and two



people ended up working on the same task for an article, or we forgot to include an article after all the work it takes to write and translate it

We once had a cyberattack on our server. I triangulated the origin and found out we were under attack from a Chinese army base. In less than 30 minutes we had 35.000 download requests for the same issue. I had to take it down to avoid collapsing our website.

We have received very interesting emails too. People have requested a (paid) job with the magazine and have even placed orders for LEGO® sets, thinking we also make the sets.

But the best anecdotes are from our encounters - not online, but at events. We have had some good laughs. I remember an

occasion when we were invited to leave a place because we were laughing too much - and that was in bar with a stand-up comedian! I don't remember a single meeting at which we haven't had more than one laughing fit.

HBM: Finally, what would you like to see in the magazine?

AB: What I would like to see most is the entire original team from the magazine. The ones that have left are sorely missed as each of them brought their own imprint to the magazine.

As for LEGO® constructions, something I would really like to see is the return of the classic themes, but the real ones and not the surrogates we see appearing occasionally.

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Alien

“It is those creative thoughts that most strongly boil in the hearts of men that end up becoming the most incomprehensible and incomplete works, bastard daughters of the ideal of perfection”, Giger’s Alien.

Text and images by arvo

Provided we didn't misinterpret the quote by the crazy Abdul Al-Hazred (which is more than likely), it serves to illustrate what we feel when we have a close look at our Aliens...

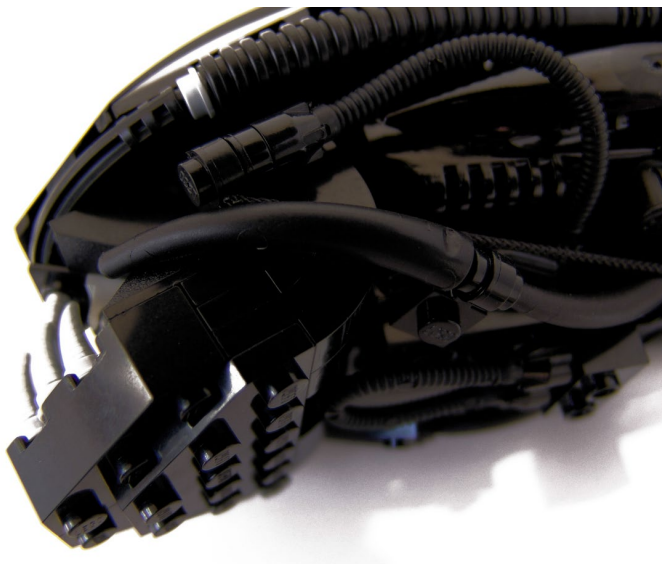
But let's start at the beginning... the idea of creating an Alien started to take shape after we finished the Kaneda motorbike, a construction that surprised us and which we have often used as 'canon' for our projects.

We have already commented at some point that this creation is in itself a summary of our style, or rather, the style we aspire to, but maybe its most important achievement has been to make us do more and more bizarre things, like in this case the Alien...

It should be said that there have been a multitude of references to the Alien theme on Brickshelf for a long time. Some are really portentous, as in the case of Bryce, an artist when

it comes to combining rare elements, capable of creating biomechanoid textures in the purest Geiger tradition... he is the author of the Alien Queen we all know.

The high level of detail and the indiscriminate use of Bionicle elements make Bryce's creations a real exception on Brickshelf, which is full of mostly small-scale models. This left a more than obvious gap for us to fill, as we wanted something detailed, but using a specific range



of pieces... the ones we like!

What we have not mentioned before is that we started to build the adult Alien before the Chestbuster... as a matter of fact, at one time we had a kind of hybrid which consisted of the black infant shape with two rudimentary arms, faithful to the famous scene from the film. The kind of arms the original Chestbuster has were not included in the final MOC because of the lack of stature in the final pose of the figure where they would have been barely visible... a pity, but also a saving in parts!

The early builds were very unfruitful. One of our nephews, upon seeing the unfinished head lying on a bed, thought it was a telephone... we of course politely invited him to leave the room. The early look of the model was somewhere between cradle phone and Amazonian slug. In fact, this had us worried at the beginning, to the point where we considered cancelling the project altogether... until we hit upon the jaw design.

While watching the movie we realised the Alien has a strong jaw, emulating that of the Habsburgs from Spain (but much less hostile of course...) and finding this trait encouraged us to continue. We had

the essential part: the expression of the creature.

From that moment we worked on the rest of the body of the Chestbuster, experimenting with the repetition of different types of elements, and looking for textures that would provide the desired biomechanoid effect.

As you can see, the selected elements were hoses, logs, curved slopes, minifig heads, etc. The placement of the curved tubes on the sides was particularly problematic. The way we see it, these elements don't integrate well with the rest, but we liked the effect they provided so we decided to turn a blind eye.

It was harder to decide what to do with the tail...

The movie doesn't provide enough material to get a good idea of the shape of the Chestbuster, but looking at some reproductions we were surprised (and appalled) to discover that it looks like a caterpillar... gross.

So, in fact it wasn't our intention to represent the moment the Alien makes its bloody (and legendary) appearance, but it was the best way

we could think of to hide its horrible shape. Now we are happy to have presented it in a pool of blood. It made the MOC more colourful than expected... and certainly more original.

And what happens when an Alien grows? Well, besides bad coffee and a penchant for practical jokes on starships, aliens turn... black!

The use of black was a big problem. As we were used to being the queens of colour, we couldn't get used to working in this gloom, but we started to see it not as an isolated construction but as something that would become part of a collection of Aliens. And in a way, as a rarity in the series.

Many times, thinking about creating new MOCs related to the movie (with the intention of definitely putting the subject behind us) we have been tempted to cover the complete life cycle with an egg and a Facehugger. It would be logical, but there are so many attractive references in the movie that we haven't decided yet. Well, there is something that is very clear, but before we start on that project we will have to find a middle man to sell our kidneys on the black market.



Getting back to the subject, once we built the head and checked the size the creature would be, we had to decide in what position we would build it. We had a phone conversation in which I expressed my preference for a squatting position with the arms stretching out menacingly. This was based on the scene where Dallas finds the creature in one of the air ducts.

But we settled on something very different from that original idea – representing the Alien like a feline in a waiting attitude, facing its prey, patiently waiting in one of the dark corners of the Nostromo, and guided by the killer instinct of this lethal creature. That is really the vision of the Alien that fascinates us – that of a being whose threat does not allow for any hope.

If the position was inspired by the movie, we couldn't forget about poor Giger. He conceived the Alien as a slender creature, elegant in its movements and of course... without slime! It is evident they didn't listen to him in Hollywood.

We especially wanted to emphasise the slender figure. Anyone who is familiar with Giger's work, knows about the characteristic slenderness of his creatures. It is a very 'Giger'

thing, and we wanted to exaggerate this in our Alien, but we found serious limitations in the size of the Technic beams in the legs. They were crucial to making the creature stand up, but they prevented us from building its thighs as thin as we wanted. However, the result was close enough to the idea we had in our minds and we were not up for too much change when we got there.

Regarding the rest of the construction, there isn't much to say. You all know we are not eager to talk about our 'techniques' but frankly, we don't feel like we have brought anything new to the table, nor anything different from what others do. We all know how to build using brackets, how to change directions, use SNOT and such villainies. We find it hard to believe that in this small world, in which a build of a certain level has a period of validity of no more than a few days, it would be especially important to talk about building techniques. Especially if, as we said, there isn't anything out of the ordinary that deserves mention.

To finish off, we will reveal that these Aliens aren't really our favourite builds. We have a hard time seeing anything particularly unique in them and we seem to concentrate only on the mistakes we committed with

them. This may change over time, but it is frustrating to see something as clearly improvable, and to know that the solutions irrevocably require starting from scratch.

That's the worst part of 'big' builds: they appear destined to be a big collection of failures due to the terrible difficulty of rectifying their mistakes. But we don't discard the possibility of rebuilding any of our bigger MOCs, especially these Aliens.

It would be an opportunity to know if we can get further with them and at the same time remove the dishonourable label of bastard sons...

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Interview: Carlos Méndez

By HispaBrick Magazine®

Pictures by car_mp

Carlos Méndez (car_mp) is partly responsible for the existence of this magazine called HispaBrick Magazine®. With his idea of preserving the magnificent creations that we find in the network, he believed that the best way to immortalize them was through a free magazine, made by and for the AFOLs. And with this starting point, we come to the celebration of our 10th anniversary.

HispaBrick Magazine®: How did you get started with LEGO®?

Carlos Méndez: My aunt bought the first sets for my brother and me from France. In Asturias (Spain) they were expensive and hard to get, and to be honest, I was so little I don't remember what we played with before getting these LEGO® sets. The first one I remember clearly is number 40, a universal set from 1976. If you put together my somewhat solitary character, my overflowing imagination and the classic bad weather in Asturias, you can imagine why LEGO® bricks were my perfect toy. Later on I loved City and Classic Space equally – well, maybe I loved Space a little more. During my teenage years my studies and, why not say it, a certain disenchantment with the sets from that time period took me into my dark ages. Fortunately, my collection was safely stored away.

HBM: What brought you out of your 'dark ages'?

CM: I suppose it was what happened for many people in my generation: LEGO® Star Wars. My first skirmish was with the Naboo Fighter 7141 from 1999. I had just moved out and was living in a city I hardly knew, so I had a lot of free time. It was just a matter of time before I felt the calling. I was content with just that set for some time, until I bought the 7140 X-Wing... though it would be unjust to say that was what restarted it all. Part of the reason why I started building again was that I discovered LDD and the online AFOL community. The former allowed me to build away from my collection of parts, and the second made me feel comfortable with my hobby.

HBM: What is your favourite LEGO® element?

CM: That's a tough question. I remember asking the same one in my interviews for the magazine. I think any modified 1x1 brick with studs on the side. They have become the basis for the way I build. I feel comfortable with small elements – I believe I still have a problem with space and parts when I build.

HBM: What is your favourite LEGO® theme?

CM: Of all time... Classic Space. It was a very important part of my childhood play, and the modern creations with which AFOLs keep the theme alive are incredible. Of those that are available now, Star Wars, but only the UCS range.

HBM: What element would you like LEGO® to make?

CM: I would say a plate with studs on both sides. But part of the challenge is building with what is available.

HBM: What do you like best: building LEGO® sets or creating your own MOCs?



CM: Building MOCs of course. I always build the official set and some of them stay built for one reason or another, usually sentimental (like the Mini Cooper or the Slave 1 UCS), but after a while I take them apart and build my own silly little things.



HBM: What MOC are you most proud of and which one has given you the most headaches?

CM: The answer to both may be the same: Minion Yoda. It took a long time to design it due to the availability of parts in that colour, but when I look at it I'm still happy with it. I think it will stay on my shelf for many more years. I also like the rest of the Star Wars minions a lot. And of course Totoro. As a fan of Ghibli Studio movies it had to be in my collection. The difficulty in this case was finding a way to combine two spheres of different size without a transition.



HBM: When, how and why HispaBrick Magazine®?

CM: When? Ten years ago. How? Almost without wanting to, and with the disinterested help of many people. Why? Both fame and the internet tend to be passing things, unless you are capable of keeping the spotlight on your work continuously. I thought it was sad that the fantastic creations I saw on the internet got buried under layers and layers of other creations in a short time. I thought the best way to give them a measure of immortality was to showcase them in a magazine, something I felt then was more durable than a blog post. So I decided to say it out loud, and with the help of some very committed people from the Spanish AFOL community and The LEGO® Group we got started. Later on it all started to grow beyond our wildest expectations and became what it is now.

HBM: There must have been many anecdotes during your time with the magazine. Could you share some?

CM: Honestly there aren't too many, at least not of the type you can tell without offending anyone. A sad anecdote that has always worried me concerns our first layout artist, Iñigo. One day he stopped answering our emails and I had to take on the lion's share of the layout work with only the little experience I had gained in first few issues. Fortunately, there are tutorials for everything online. I have never heard from him again and I hope he is well. Of the funny anecdotes, maybe the best one is my first trip to BrickWorld Chicago, where some already knew our magazine, or my visit to LEGO® Dinamarca, where I was very well received. But what is really fun is working with the Arvo brothers...

HBM: It's been ten years since the first issue. How do you see the evolution of the magazine since then?

CM: I suppose the most important changes are related to the internationalisation of the magazine. More and more people know it and there are more and more international collaborations... I suppose that is the main change. In the end the product depends on the customer, and so it must evolve towards what the readers demand. As long as the magazine stays faithful to its principles and away from commercial interests all will be well. There are less and less free things, and the effort the magazine makes to stay free should be the pride of the community.

HBM: Issue 022 was your last magazine. What have you done since then? Have you started any new projects?



CM: Truth be told I have done many things. I have finished my book of stories, which I self published a few months ago, I have started building regularly again, and I have started a new LEGO® blog in Spanish and English – <https://www.bricksonthefloor.com> – where I post building instructions for some of my models. The future is yet to be decided...
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Interview: LEGO® Technic

By HispaBrick Magazine®

Images by HispaBrick Magazine®



During the LEGO® Fan Media Days in Billund we had a chance to meet up with a former collaborator of HispaBrick Magazine®, **Milan Reindl**. He is now a designer for LEGO® Technic. He was accompanied by **Samuel Tacchi** and together they answered a number of questions about LEGO® Technic.

HBM: Thank you for taking the time to talk to us. Can you tell us a little about yourselves?

ST: My name is Samuel, and I'm the freshman in LEGO® Technic. I came in last year in January so I've been here for a year and a half now. I trained as an industrial designer focussing on vehicle design – cars, motorcycles boats, etc. Before working here, I was a motorcycle designer and a LEGO® enthusiast.

HBM: How did you make it into LEGO®?

ST: I saw online that they were offering a position. I was invited to do a workshop here in Billund. We were about 40 people

at the LEGO®LAND Hotel. At the end, we received a task to do at home. We were given some bags and we had to invent and create a model in two months. We then had to present this model in front of everyone.

MR: My name is Milan, I'm from the Czech Republic and I've been with the LEGO® Group for five years. I used to be a teacher and was one of the Czech AFOLs showing LEGO® Technic based creations online and at exhibitions.

HBM: The transition from AFOL to LEGO® Designer... How much does your world change in terms of your hobby?

MR: The pace slowed down somewhat, but there are moments when I still build like crazy at home, even though I am not able to show everything I build. What changes is the approach; your standards change so much, the way you build and think, how you combine different elements and the way you introduce different element colours in the volume of the set. When you are an AFOL, you are not restricted by any rules,



TECHNIC



Technic designers Milan and Samuel with Vintage Technic sets

so you can build a whole model in a single colour and don't have to worry about anyone being able to recreate it after you. When you become a Technic designer, you have to take care of those people who want to build it after you design it. You need to make sure they get the best possible build and play experience. For example, they shouldn't need to spend a lot of time trying to find an element and end up not finishing the model because they couldn't find it. They should really enjoy what they are doing and what you were passionate about when you designed the set. Different rules apply and you have to learn loads of them. The standards for stability are also very different. As an AFOL, you sometimes arrange bits so they look nice in a photo, but when you grab the model, it might fall apart. This cannot happen with a LEGO® Technic model. The model needs to be playable, sturdy and functional after repeated use.

HBM: Can a LEGO® designer also be an AFOL?

MR: Yes. I am the perfect example. I'm still following fan forums every morning.



HBM: What was the learning curve like when you got here?

ST: It was very steep. The first project I was part of was the BMW bike, particularly the B model. We have to offer the best experience we possibly can. I think it took me a year to create my first model in LEGO® Technic, and that is coming up in January. That's an important achievement for me! I knew how to follow the building instructions, but when you are creating

the model, you have to think about how to build it. All the team around you gives you input and then you start seeing it all come together.

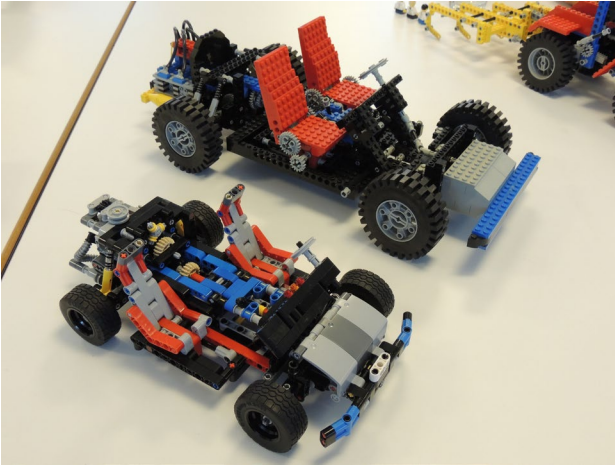
HBM: What inspired LEGO® Technic to choose these models for 2H2017?

MR: Offering something new that we hadn't done before. We haven't had a fire truck for ages and we have never had the Airport Rescue Vehicle. That's why this model was chosen. As for the extreme adventure, we haven't done a proper 4x4 vehicle in quite some time, and never on tracks, and we never pushed the limit as far as we did with this one. This set is more about enjoying the pieces and building many functions into the model with lots of attention to detail, whereas the All-Terrain Tow Truck is more about the immersive play experience with RC Power Functions. It also has a quite complex gearbox to change between the functions, and all the functions are controlled by the motors.



HBM: There are no licence plates on these models?

MR: That was a trend for 2017. The 40th anniversary brick kind of asks to be used as a licence plate and that's what I did with the homage model. In that model I have used it three times, as a front and rear licence plate and also as a stamp on the chassis on the bottom. We wanted to use the commemorative brick in a cool way and that's why these two models (42069 and 42070) also use it as a licence plate.



HBM: What are you doing to celebrate 40 years of LEGO® Technic?

MR: First of all, there is a commemorative brick in all the boxes for 2017. During Easter, we launched the building instructions for the homage 8860 Car chassis from 1980 and there is social media content, a poster and stuff like that.

HBM: What is your all-time favourite LEGO® Technic model?

MR: Mine is the second control centre with the dinosaur. It was released in my dark ages, but when I was doing research for the 40th anniversary celebration and looking for the coolest sets in the eyes of AFOLs, I realised that was the coolest set and I got a copy right away. It's pure joy to play with. It has very diverse models. Aside from the dinosaur, there is a hovercraft and a helicopter simulator. It's all I could ask for.

ST: My favourite is probably the black supercar with 4-wheel steering, the 8880, that I built with my cousin back in the day. He is a really big fan of LEGO® Technic and I think he brought me into this. I really have to thank him very much. I think the 8880 was the first Technic model I built as a kid.

HBM: How do you decide what the licence plate on any model is going to be?

MR: Usually it uses the initials of the lead designer of the set plus the SKU number (the number on the box), but sometimes we hide some special messages for family members or other people that are special to us. Or it could be something that is special to the designer, like a birth date.

ST: It's our final touch.

HBM: The 42056 Porsche was one of the bestselling sets for 2016. What do you think made it such a popular set?

MR: Overall I think it's because it appeals not only to Porsche owners and enthusiasts, but also to anyone who likes cars and anyone who likes LEGO® Technic. In addition, it looks really cool. There has been a lot of media attention; we could not have asked for something better. Everyone was sharing it online when the model was announced. There was a lot of hype about it. It's territory we hadn't explored before. We hadn't done such a huge supercar ever before, nor in such an exclusive packaging as we did for the Porsche. The care for both brands in the marketing campaign that went with the set also showed that they fitted together so well. And it is the first time a really immersive LEGO® Technic experience has been linked together with a licensed car.

ST: A lot of my friends have this set because they are car enthusiasts. The set appealed to a lot of people who were not into LEGO® or LEGO® Technic before. The box is just beautiful, really, and I've put it behind the model where I have it on display. So it's the whole experience behind the model that is exciting.



HBM: New elements?

MR: They were all used in the first half. Recolours of panels; colour on the all terrain tow truck. Completely new blue.

HBM: The wheel arches are very nice parts, but how much sense do purple wheel arches make to the assortment for AFOLs?

MR: The LEGO® Technic product line isn't targeted just at adult fans. We are mostly here for the kids, and this is what appeals to them right now. If you have a vehicle that is called Extreme Adventure then it should really be extreme – in colours, functions and everything. That's why we picked a colour in which we only had a few parts in the past. With the introduction of the purple panels in the Race Kart (42048) last year, this was a logical step to follow up. And this is what we tend to do: if we launch a set in a particular colour you can pretty much expect the same elements to be used later on and also additional elements in the same colour. That's what happened with the Hot Rod (42022) in 2014. You got a few light blue panels. Then those were used on the Street Motorcycle (42036) in 2015 and this year there have been plenty of recolours in light blue in the Air Race Jet (42066). We tend to not waste what we started when it comes to new elements, so sooner or later you might see the wheel arches in different colours as well.

HBM: It is also good to see the large tires that came on the Claas Xerion tractor (42054) being reused on the All-Terrain Tow Truck (42070).

MR: Although they come from a licenced set, they were designed as generic tractor tires. There is no Claas LOGO on the tire. The wheel arches first appeared in the Porsche set, but again, there is no Porsche logo on them so we have reused them. The Porsche rims however are specific to Porsche, to add extra authenticity. Plus, it is an important icon of the real car – like how you would have a proper-looking Darth Vader helmet in a Star Wars model. On the whole we try to make sure that we create generic elements that we can reuse in the future.

HBM: Do the axles in new colours make your life easier when you are designing a set?

MR: Yes. We received a number of calls where people were missing 7 or 9 module axles in a build and the other length had extra spares. This is because people tend to mix them up. That's why the decision was made that you can have two colours to choose from to make things easier for the designers and for the target consumers. Sometimes it also opens new possibilities to expose the cross axles in the new colour where you would have hidden it in the original colour. If you have a yellow model, for instance, then you could use the yellow cross axles for visible parts and make it more visually appealing.

HBM: Are there any functions you especially like or are particularly proud of in the new sets?

MR: I'm really proud of the doors on the Extreme Adventure set. That's the best part of it. I think it is one of the coolest mechanisms we have done in

LEGO® Technic. There have been similar kinds of doors, but they have never rotated around the a-pillar and dropped the running board as well. The roof tent is also a great function and the winch has been done in a different way. I thought, why not do it like in real life? You just release it and take it as far as you need and afterwards the only thing you do is wind it back.

HBM: Supposing I had to choose between the Extreme Adventure and the All-Terrain Tow Truck, it is going to be a really tough choice.

MR: They are different and they offer a different play experience. The Extreme Adventure is purely manual, trying to show functions that we didn't do before. The All-Terrain Tow Truck is more about having fun with remote controlled functions.

ST: I think the Extreme Adventure is the model I enjoyed most. I built it with Milan at a certain point and I enjoyed it very much. I said I would get this model as soon as it is in the shop.

HBM: For people who are not very much into Technic, what would you say to recommend it?

MR: If you are interested in authenticity and how things work, in things that function as they do in real life, and you are interested in the challenge of building something that is more complicated than a regular system model, then give it a try. And if you don't like the main model you can always rebuild it, because we provide instructions for a second model as well.

ST: LEGO® Technic is a great experience. It can be really inspiring to build a model that actually moves. You can see for example a crane on the street and you can build one out of LEGO® Technic. It's a good door to open.

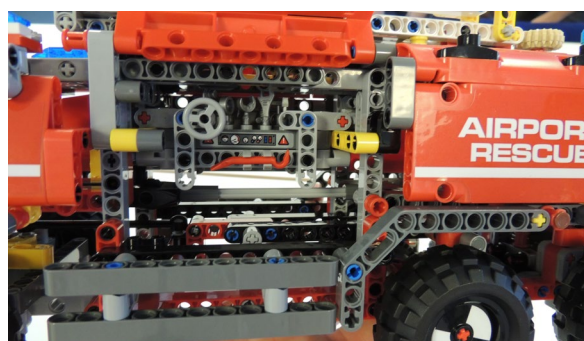
MR: You always learn something. Even being part of the LEGO® Technic design team, when you build a model that a colleague has designed you learn something new.

HBM: WeDo and Boost have introduced LEGO® Power Functions 2.0. Why is Technic still using the 'old' Power Functions?

MR: Right now Power Functions 1 is definitely sufficient for what we need. We of course try to evolve. If we didn't Technic would still look like the original 8860, with studded bricks that are not even part of the Technic platform. We don't know if and when anything is going to happen, but we always try to look ahead and ensure the best play experience possible.

HBM: When did you start designing the models for 2017.

MR: That pretty much depended on the size of the model. It can vary, depending on the size and complexity of the model.
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Building LEGO® trees

Text and images by Andrea Valcanover

A little about my history as an AFOL

Name: Andrea Valcanover

Age: 34

City: Cremona, Italy

RLUG: Cremona Bricks

Job: Civil engineer

Hobby: LEGO®, photography, singing

My passion for LEGO® started during childhood. Most of the toys I asked for were LEGO®. My first set was the 6659 TV Camera Crew, which I received when I was four. I loved Town in particular because it was my dream to build a large city with houses, garages, trains and stations. I also played with Pirates, Space, M-Tron and Technic. My last set was the 8880 Super Car in 1995.

That is when I entered my dark age – a period in which I saw LEGO® from a distance and pursued other passions (photography and choir singing).

In 2011 my girlfriend Chiara, my friends and me went on a camping trip to Holland and we visited the red lighthouse on the isle of Texel – we loved it. As a memory of those holidays they gave me three sets: 7567 Traveller, 7639 Camper, and 5770 Lighthouse Island. That's how my interest in LEGO® bricks came back, and they brought with them some unexpected discoveries, including the AFOL world.

In 2012 I met a group of LEGO® fans in my town, Cremona Bricks, and this became my LUG through which I have participated in exhibitions, events and also the Skaerbaek Fan Weekend. I am particularly interested in City and in reproducing a quarry. In my MOCs I have concentrated on open spaces with lots of details and minifigs::

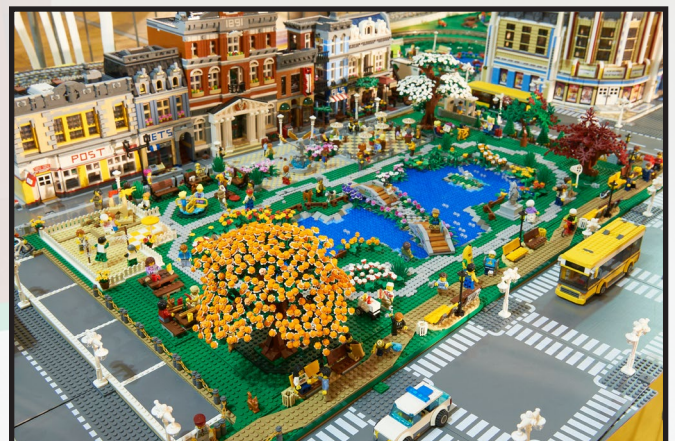
- A camping ground
- A marketplace
- A big band with audience, lights and sounds
- A large park with a lake and green areas, conceived for combining all 12 modular buildings together at their 10th anniversary

This latest MOC has made me look for new methods of creating plants. The most important point when it comes to the technical level is the amount of pieces used, and the impact this has is the subject of the present article. I have built this tree design in bright pink and orange varieties.

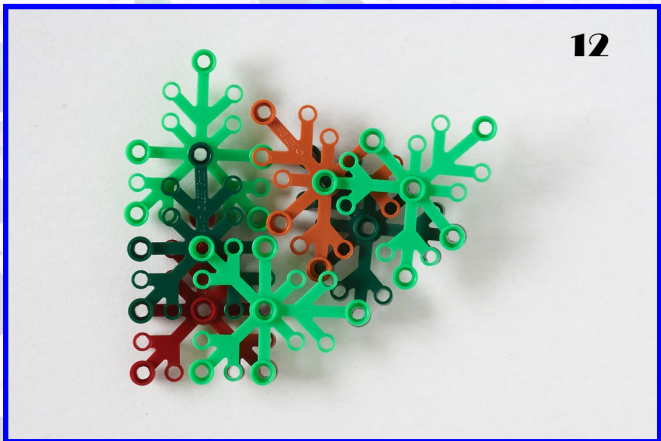
My MOCs are integrated in the Cremona Bricks City diorama, the design of which I have also contributed to. In April 2017, at the event called 'Mattoncini all'ombra del torrazzo', Cremona Bricks presented a 60m2 City diorama, with 130m of train tracks and the collaboration of more than 30 AFOLs. My childhood dream of building a large city has been fulfilled.

...But the story continues with new ideas and projects.

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Parts list

LATERAL CROWN (x4) - Steps 1 - 9

Number of pieces	BL Code	Color	Description
4	2417	DARK GREEN	Plant Leaves 6 x 5
3	2423	GREEN	Plant Leaves 4 x 3
1	3023	REDDISH BROWN	Plate 1 x 2
1	44302	REDDISH BROWN	Hinge Plate 1 x 2 Locking with 2 Fingers on End
2	4073	REDDISH BROWN	Plate Round 1 x 1 Straight Side
25	3741	GREEN	Plant Flower Stem
75	3742	WHITE	Plant Flower Small
75	4073	BRIGHT PINK	Plate Round 1 x 1 Straight Side

TOP CROWN - Steps 10 - 16

Number of pieces	BL Code	Color	Description
28	2417	DARK GREEN	Plant Leaves 6 x 5
110	3741	GREEN	Plant Flower Stem
330	3742	WHITE	Plant Flower Small
330	4073	BRIGHT PINK	Plate Round 1 x 1 Straight Side
2	4032	DARK GREEN	Plate Round 2 x 2 with Axle Hole

TRUNK - Steps 17 - 22

Number of pieces	BL Code	Color	Description
8	3040	REDDISH BROWN	Slope 45 2 x 1
4	4286	REDDISH BROWN	Slope 33 3 x 1
1	60481	DARK BROWN	Slope 65 2 x 1 x 2
3	4460b	REDDISH BROWN	Slope 75 2 x 1 x 3 - Hollow Stud
3	3022	REDDISH BROWN	Plate 2 x 2
1	3005	REDDISH BROWN	Brick 1 x 1
4	2449	REDDISH BROWN	Slope Inverted 75 2 x 1 x 3
4	2339	REDDISH BROWN	Brick Arch 1 x 5 x 4 - Continuous Bow
2	3003	REDDISH BROWN	Brick 2 x 2
4	3023	REDDISH BROWN	Plate 1 x 2
4	44301	DARK GREY	Hinge Plate 1 x 2 Locking with 1 Finger On End
4	3623	REDDISH BROWN	Plate 1 x 3

The Secrets of Modular Building

By Pau Padrós

Images by Pau Padrós, Arnim Schulz and LEGO® System A/S

Hello fellow HispaBrick Magazine® readers!

Some of you might have heard of me, but if you haven't you're not to blame! It's probably me who hasn't reached out to you yet. My name is Pau, and I'm one of those who have desperately fallen for LEGO®. Well, unlike many others who have had what's known as a 'dark ages' – the years of having abandoned LEGO® as a hobby – I've never had such thing, so I've never really left it aside at any time in my entire life.

The thing is some of us nerds who play with LEGO® really have an odd addiction to a way of making buildings: the modular system. But what is it? Is it any good? Is it impossible to improve? We'll see.

What is the modular system?

An easy question. The 'modulars' are buildings that have floors you can stack on top of each other. Each floor is called a 'module'. Most LEGO® buildings out there are made using the modular system, including LEGO®'s own models. This system was created by the god of modular buildings, also known as Jamie Berard. Jamie is a model designer, if not the model designer, working in Billund, Denmark. Around 2006-2007, Jamie and his team took seriously the suggestion of many AFOLs to bring big houses back into the LEGO® catalogue. As a result of this input from the community, 10182 Café Corner was born – the first modular building.

The Café Corner set is the model upon which all subsequent modular buildings would be based.

1. First and foremost, the building sits on top of a 32x32 baseplate (though not a requisite) and has 1x2 Technic bricks with pins on two opposite sides (straight line modular) or on two adjacent sides (corner modular). The total width is 32 studs, so the distance between pins is ALWAYS 9 studs, 2-wide pin, 10 studs, 2-wide pin, 9 studs.
2. The modulars have separable floors that stack one atop another. Many other LEGO® sets work this way now because of the added playability and customisation options.
3. All modulars shall have a middle floor that can be repeatedly duplicated to make buildings bigger. This is the main stopper for modulars right now.
4. The distance between building and end of sidewalk may vary. The 'standard', where most of the buildings (official ones and MOCs) have their façades is on the brick before the pin, which leaves a 7-wide gap for the sidewalk.

5. Lastly, a subject of discussion for the last couple years has been the continuously decreasing height of the modular line. All the extra bricks that were once put into making a building taller now go inside the building itself. This makes buildings shorter but much denser. I personally prefer them this way.

LEGO®'s modulars

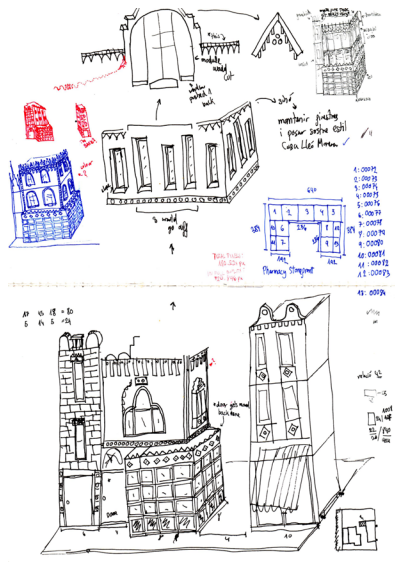
Over the course of 11 years, LEGO® has released a sum of 13 modular buildings (one each year except for 2007, when two buildings were released). I personally like to separate the modulars into two eras: 2007-2013 and 2014-present. First era: 10182 Café Corner (2007), 10190 Market Street (2007), 10185 Green Grocer (2008), 10197 Fire Brigade (2009), 10211 Grand Emporium (2010), 10218 Pet Shop (2011), 10224 Town Hall (2012), 10232 Palace Cinema (2013). Second era: 10243 Parisian Restaurant (2014), 10246 Detective's Office (2015), 10251 Brick Bank (2016), 10255 Assembly Square (2017), 10260 Downtown Diner (2018).

As you may see, most of the buildings have been created by the already mentioned amazing Jamie Berard. His modular standards mentioned above, and also his passion for filling to the absolute maximum an (apparently big but realistically tiny) 32x32 baseplate, have influenced many MOC builders (including me) to try out this style of building. But what are the secrets of an amazing modular? I'll use my own '**Klee Corner**' modular building to exemplify the steps involved in finishing a modular in style.

The Making of a Modular

Note: The modular I'll be building was created using LDD. Don't have any prejudice against any other method – LDD is just my absolute favourite tool to use.

1. THE SPARK: What does this mean? The spark of inspiration. One thing is certain, never open LDD empty-minded. Very much like Photoshop, it's very easy to waste time while using it. The spark might be seeing a building in real life, or a specific detail somewhere else. For instance, for Klee Corner, it was a restaurant known as 'Little Owl Restaurant' located in Manhattan. This restaurant was in the last scene of one of those dumb rom-coms they sometimes put on TV – No Reservations, I think it was called. It was a red, London-phone-box-like wooden first floor. It struck me like lightning. It just looked perfect for turning into a modular building. Later on I would discover the building atop was the one they shot 'Friends' in. Consider that this happened somewhere around last Christmas, so take December 2017/January 2018 as a reference. So, you can imagine me at 2am drawing a sketch for the model in my little notebook bought in the Colosseum.



thing I didn't even touch afterwards. Note that the door you see in front was never actually built there.

What's above it is something entirely different. This is where I was more fearful. My initial idea was to build something along the lines of this beautiful Art-Nouveau building in my own town.



You might look at this and think it looks nothing like the finished model. Well, that's to be expected. The spark is not at all a definitive idea. I wish it were! Like the great Pete Docter once said (director of Monsters Inc., Up and Inside Out): "No idea is born innate. As a kid I used to think the people at Disney just came up with these awesome ideas; The Lion King, The Jungle Book and so on. But the truth is, no idea comes out finished. We work every day in order to cover up all the trash work we've done the previous day – that's how we finish a film". Like Pete said, no idea is innate, but the sketch is VERY important.

If you scroll up, you'll see the sketch on the top page looks very much like the building I've just shown. There lies the issue that troubled me: the roof demanded a module to cut right in the middle of those huge windows (very much like how the Brick Bank's windows are cut by the top module). This is one of the biggest problems with the modular system – it can be somewhat restricting.

2. THE SKETCH: For instance, while drawing the sketch for this modular I was thinking to myself "this doesn't have enough colour". The building on the left was supposed to be a replica of this house in a coastal town near me.

Finally we move on to the last building, on the right. By the looks of the drawing, you can imagine I had a pretty perfect picture of how it would look already in mind. This building though was another one that failed. It looked perfect in concept, but horrible in bricks.



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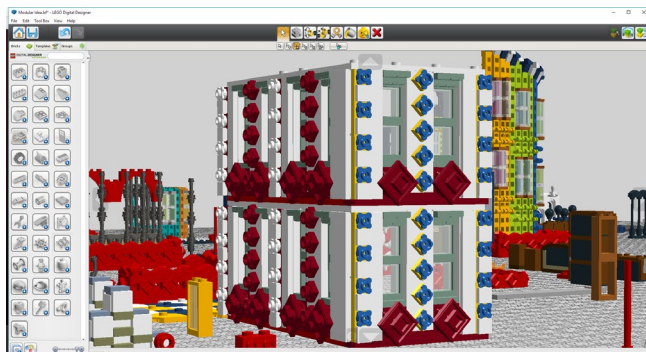
It was a house I'd wanted to make as a modular for a long time, but never really remembered where I'd seen it and I couldn't remember its name. As you can probably see, this is not the house that ended up in the finished modular.



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The middle building's ground floor looks surprisingly like the finished product. That's because it worked the first time in LDD. It was the only – and when I say 'only' I truly mean it – the only

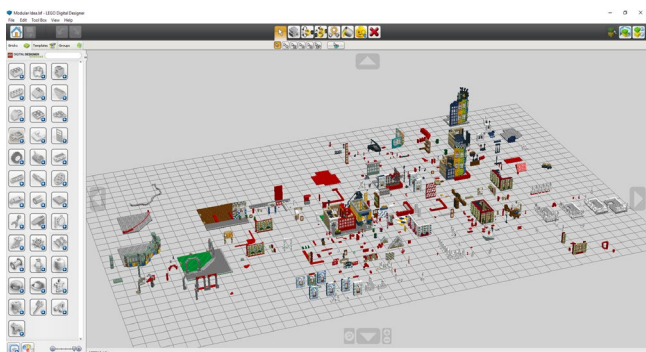
This is what it was originally meant to look like. A gorgeous white, green but also red building. The issue was that LEGO®'s white is very white, and doesn't combine well with other colours. White was too white, but tan was too dark. Anyhow, this was my attempt:



Though LDD has poor lighting on its own, something within me said that wasn't the way to go.

One thing is very important to keep in mind early on in a modular: measurements. These are those little numbers that mark how many studs are to be in a model. In the final pictures you might even be able to count how those numbers remain unchanged to the end modular. Just a tip: avoid uneven numbers if you can. (Easy for me to say, as the phone box section is 11 studs wide! But that was an exception to the norm.)

3. TRIAL AND ERROR: Yes, practically nothing from the sketch made it to the final modular, so this is where all the crappy stuff gets turned into awesomeness. As this model is basically split into three sections, I'm going to talk about all the different concepts that went into each of the buildings. Hold tight, as it's gonna be a rough ride (the full LDD file includes about 12,500 pieces used in initial sketches and unfinished ideas).



All three buildings have interesting stories behind them, so we'll go from the smallest to the biggest (though all three are pretty slim).

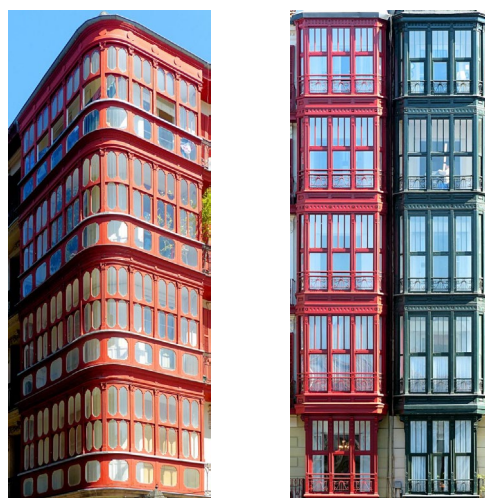
The Dark Blue Building (6-wide, on the left)

As I've already hinted, this building went through many changes to the point that its final version is nothing like what was first envisioned. Further above, Image 4 shows what this slice of the modular was supposed to look like. But it doesn't look like that, doesn't it? For a very good reason: it didn't work. As much as you may desire something, if it doesn't work, let it go. Try doing it differently – here is an LDD screenshot of all the different scrapped façades I tried for this building:



These are all iterations of the same bluish tile façade idea – each more horrifying than the previous, as you may have seen. As hard as I tried, the concept failed, whether using prints or hourglasses in blue. Something else had to go in its place.

Then I thought of Bilbao. That town in the Basque Country, bordering the Pyrenees. Its old town centre has bold brightly-coloured metal structures poking out of older buildings. It was perfect. Skinny, somewhat imposing and modern, but also something I could work out in LEGO®.



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These three images showcase perfectly the modernised world within the traditional nature of a place that so much stoked me. The last image especially was one that just looked right for slotting into the model. Indeed, aside from the colour, I also put its small window-bigger window-smaller window layout into my modular.

Those grill pieces are there to cover up the gap that modular buildings tend to have where the floor splits up. It is indeed something quintessentially simple, but which had simply not come to mind before seeing the newest 'Downtown Diner' modular – LEGO®'s latest.

So now I knew what the tiny 6-wide gap would be filled by, but I didn't know what would cap it off. I absolutely love building rooflines. They could even be my favourite part of building a model! That's why I have the tendency to build roofs which end up not fitting anywhere. So I built some roofs meant for previous iterations that were scrapped (or put off for some future use, you never know!)



It's funny how things work out, as I was convinced the third concept from the left (the bright green one with the shell) would be the chosen one for a really long time, but for the final blue building I made one and was more than satisfied with it.

The Greenish/Yellowish/Reddish Building (10-wide, on the right)

This building suffered much less of variation than the previous one. If you take a look at the sketch and compare it to the final model, the window layout remains exactly the same. That's because this model was always supposed to be a version 2.0 of the blue building from LEGO®'s Detective's Office (2015).



Copyright LEGO®

I've always loved the elegance of that building, and I would even consider it to be among the best things LEGO® has ever made. Therefore, I wanted to add as a little extra spice, the basil that tops the perfect Ratatouille (yes, I'm listening to Ratatouille's soundtrack while writing this!). Obviously, the concept I tried (Image 7) failed completely at achieving this, so back to the drawing board it was.

It is often by luck that I come across architectural details I love (Bilbao's windows, for instance), but not for this one. For this odd building, I obliged myself to visit an outdoors shopping centre – one of those that has themed buildings and all – and to closely inspect the buildings. Surprisingly, my observing eye found something worth trying.



Copyright La Roca Village™

This isn't a great picture of it, but the springy façade was something that caught my eye. Mostly because I couldn't think of a way to build the flowers into the tiles. Then back home I just sat on my computer, built, built and built. I realised the only way to make it possible would be to invert the plates holding the petals, and by the following morning it was finished.



I must admit I liked the idea so much that I just couldn't help wanting that building to be the main thing one would see (though that would eventually be the central curved building).

Who is there? Is it crazy me once again? Let him in! My subconscious must've been thinking something like that when I thought I would make the ground level a pharmacy. But not just any pharmacy. One that would require huge prints to achieve: one of those Art Nouveau tile-covered pharmacies that remain in some places.



I'm horrible at keeping true to what I draw, so the roof unsurprisingly follows that pattern. Does what I drew match

up with the reality? Not at all. Were there other designs in the way? Of course! It must be said that I absolutely love how this roof turned out, and it might even be my favourite of all those I've built through the years. There was in fact another roof, one which I absolutely loved, that was to be placed right where the current one is. That other roof is a design I also adore, but I kept it out of this modular build as it overshadowed the curved building too much.



Copyright Annim Schulz

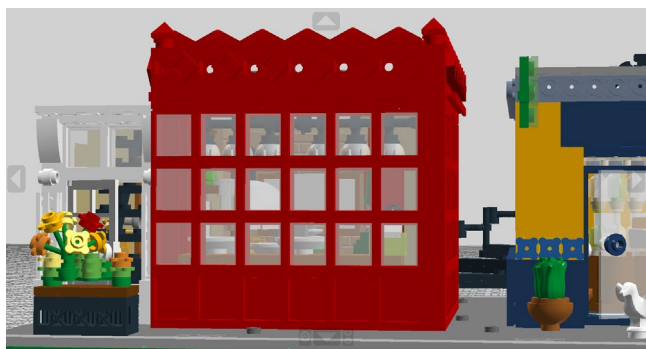
So off I went, finally inspired, hoping something would come up. It wasn't long before I realised it wouldn't work. At least not exactly here (it might be a concept I will try again sometime in the future). This is the little I built:



The final one on the right, and the preliminary one on the left.

The Curved Building (centre)

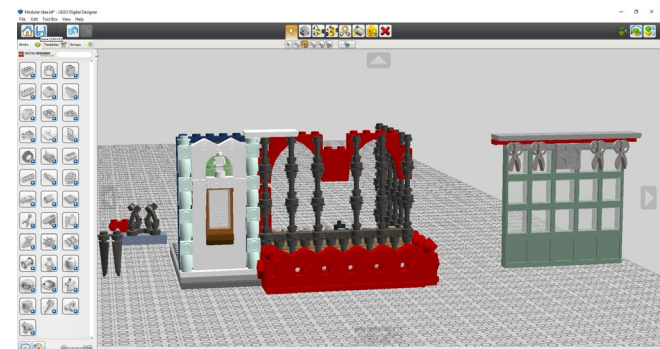
Once again the final model looks almost nothing like the sketch. As mentioned before, it was just a rough guide but totally worthwhile. First off, I'll start with the 'almost' which is obviously the ground floor. This is mostly for two reasons. Firstly, it was what first inspired me to actually start this new modular, and secondly, because it looked fine when built with real bricks.



There are subtle differences between the sketch and the model, most notably the width of the windowed section, which I expanded from 8-wide to 13-wide – an odd number that I used as it didn't cast any influence on the upper floor.

The two upper floors of this building are a totally different story. The sketch shows an awkward building (shown in IMAGE 5). As I mentioned before, this building was meant to be mostly white, but due to the combination of buildings I never even tried building it in LDD at all. So, out of the three buildings I had no lifeline to hold onto. Nothing to crawl to if all the ideas failed.

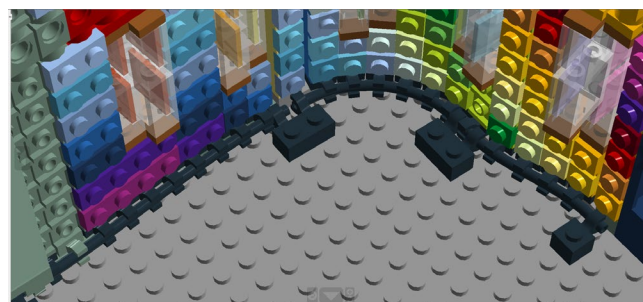
Maybe this is why it is undoubtedly the most daring of the three. I remember last January talking to my cousins about this building and showing them the progress made (with the first floor completed). Their father suggested building some sort of metal-enclosed box building. That was it, I thought. Something along the lines of these:



So I was out of ideas once again. But then I found out about a remarkable architect I didn't yet know of. LEGO® makes older architectures (stone-based buildings) hard to build. I'm a big fan of Catalan Art-Nouveau, including the world-famous Gaudí, but Art-Nouveau often uses tannish colours, therefore discovering Friedensreich Hundertwasser – akin, but a more modern version of the first – was a breakthrough of its own. Hundertwasser makes use of bold colours and materials, as if the building were an easel. Though some of his designs I find unappealing, I wouldn't have been able to even envision this building without his craziness.

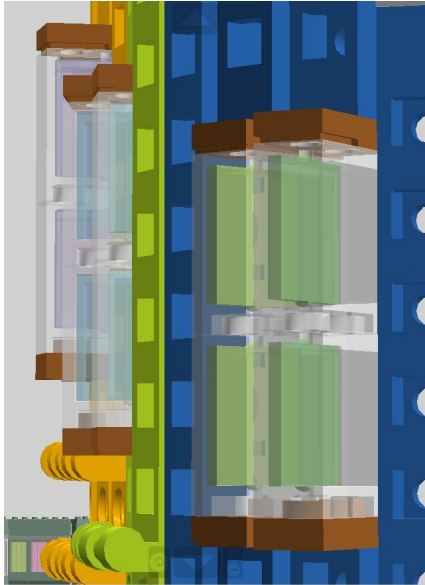


I perfectly remember building the flex tube structure in barely twenty minutes right before rushing to lunch. It's funny how the most unexpected things can turn a model bound in doubts into a model with a clear end in sight.



As you can see, it's basically flex tubes with clips attached all around them. The window concept came rather early, mostly due to the curved nature of the façade. A curved façade can't have anything poking inside, as that would inevitably cause collisions.

LEGO® windows, though, are often inset half or a full stud from the façade (or even a quarter of a stud in Downtown Diner!). This presented a potential issue, as the windows looked boring next to such a striking façade – an issue I easily solved by placing transparent window frames sideways, protruding outwards.



Windows protruding

The colourful façade did not come together in one go. There were three major iterations of its design, with all three following unchanged shaping of the flex tubes. The first one was never finished, and had bigger windows that would not align when put together.



The second iteration resembled the final design to a large extent. In this second design, I'd already settled with narrower windows and narrower vertically continuous strips of colour. The difference lies in the placing of the windows (here totally straight from one another, both vertically and horizontally), and the shaping of the roof. Note the already finished blue building at this stage. Here it looks a little too tiny next to an ever-growing (though unperfected) monster.

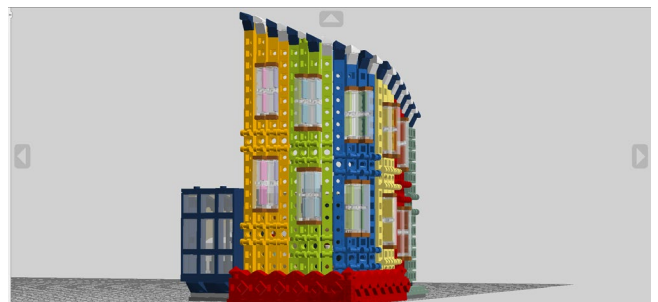
Only the most careful of observers will have noticed that the blue building's roof is slightly different – specifically, the pieces between the windows and the cheese slopes and oil lamps.



The final and third design derives from the second one. This is maybe the clearest example of perfecting a section until it ticks all the boxes. To fix the issue of the main focal point (the highest point) being partially hidden behind the greenish, yellowish building, I built the focal point right by the blue building, forming an ascending staircase-like structure.

Once I had the exact shape I desired, the windows looked out of place all flat, so I changed them to follow the shape of the roofline, ascending along with the roof, always at the same distance.

The last issue to solve was the roofline design. The one shown in the second design is directly inspired by Hundertwasser's 'Grüne Zitadelle', or Green Citadel, shown in Image 25. But this looked hollow of any cohesive rule, so I simplified it (sometimes a worthwhile trade) to a fairly simple 1x2 cheese slope design, to achieve the illusion of the whole rooftop being a slide.



Note the blue building already cut into modules here. The shrinking of the building also resulted in the blue building looking correctly in scale as a result.

Is Klee Corner technically a modular?

At the beginning of the article, before rambling on about my miserable attempts at making something decent, I mentioned what makes a real modular. A modular building is one which has detachable floors that can be repeatedly stacked one atop another. Klee Corner then is 70% modular. The blue building and the yellow/green one are 100% modular – if LEGO® were to make this a set, one could buy two copies and make them taller and taller. The central colourful and curvy building isn't modular. It's basically piles of Erling (headlight) bricks on clips attached to flex tubes, so it can't be separated. The modules of the top floors have floors that adapt to the curved façade, but are not cut outside it, as all modulares do. A curved façade done this way is the only solution that I thought possible. If any readers can think of a better way to make a building with a such a tightly curved façade (it turns about 100-degrees in a 4x4 brick space!) then I will be happy to hear of it!

Modulars are an extremely versatile concept that has morphed into hundreds of forms over the years. Since I began making these kinds of buildings back in February 2016 with Magic Shop, my first model, it's crazy to see how much more capable I am of turning crazy ideas into somewhat feasible models.

If you've read through and not just looked at the pictures, you may have noticed it's the challenge that keeps me interested. A safe model is of no interest – not to me or to anyone else. Why make anything at all, if it's not something the world has never seen? I'd never seen a curved modular done in this way. But did that stop me from making one? No! Even better if nobody has made one, as then it'll be something even more surprising when revealed!

Do I know what I'll build next? No idea. Maybe I won't build anything at all for a while (though this is unlikely). I can assure you that anything I build won't be something easy to wrap my

head around. LEGO® is like a math problem, only more fun. It helps improve mental capabilities – that I'm entirely certain of. So, if you're making a model (modular or not), don't go the easy way. Look into the intricacies. It's entirely your project. From a plate hidden under a pillar to the cherry topper. Make the model as good as you possibly can. You've seen it for yourselves! Four months of work and over 12,000 bricks in LDD, I bet it isn't all in vain. Think outside the box, and look at the world. It is beautiful, and there's surely something out there waiting to be discovered, waiting to be built. So, what are you waiting for? Go for it!

You can see more of my work in my Flickr photo stream:

<https://www.flickr.com/photos/138575523@N07/>

#



The Development of the Friends Minidoll

Text and images by Richard Jones

There has been a lot of talk recently about the changes in the design of the LEGO® Friends for 2018: Olivia has darker skin and glasses, Emma has changed her eyes from green to brown, Mia has changed from green eyes and also opted for a more natural shade of lipstick, and Andrea has changed her lipstick, her eye color AND her hairstyle! Stephanie, whilst mostly unchanged, has a bigger smile.

While the update might cause a bit of a shake up, we thought it might be a good opportunity to look at the evolution of the minidoll before it was released. As has been discussed previously, the minidoll was the product of five years of prerelease work, with multiple designs presented to focus groups to see what features would make the figures something the target market would want to play with.

Now there are many issues that people have with minidolls: the altered scale (similar height, but thinner torsos and legs), legs fused together, and the lack of rotatable wrists – to say nothing of the shape of the figures' chests... But where do we see the origins of such figures?



Tucked away in the basement of the LEGO® House in Billund, there lies a collection of historical artefacts. These are readily viewed by visitors, and included amongst them are a selection of three-dimensional drafts for the minidolls.

Due to the archival nature of the environment, the lighting conditions are not ideal for capturing images, so I apologise for the picture quality.

In the display case, there were at least nine iterations of the minidoll, created before arriving at the final model. While we are unsure of the actual order of design of these prototypes, it is interesting to see that efforts were made to maintain the rotating wrist, as well as independently articulated legs. In the front row we can see some examples of three-dimensional printed versions of the final figures.

Amongst the drafts, we have some figures that are very closely based on the proportions of a mini figure, while others are more fanciful, and some are very similar to the minidolls we know today.

The figures in the back row are significantly larger – that minifigure in the corner is larger than the normal size. The figure on the right looks similar in proportions to our current minidoll, but the one next to it is very cartoonish: almost like a Nintendo amiibo, or token in a board game.

In the middle row we see three exercises in designing taller figures: we see experiments being made with the structure of the legs, arms and ratio of torso to leg length. Some limbs are of an almost blocky shape, and others appear to have had their form modelled as a scaled down form of Barbie doll.

We also see a smaller figure here, similar to a child minifigure in form, but with exaggerated facial features and hair design. This could be an appealing form for younger children, where the face is the most important aspect of representation for a character, but not as much for the slightly older demographic that Friends is aimed at.

The front row of prototypes demonstrates a number of figures similar in size and proportion to minifigures: one merely a recovered mini figure with a slightly larger head than we are used to; one with a slightly shaped torso (possibly shaped by a dress that slips over the minifigure neck), and the other of a similar height, but resembling the minidolls as we now know them – with the exception of flared cuffs at the wrist to accommodate articulated wrists. We also see that the minifigure neck has a chunky look to it, compared to the minidoll neck that we now know.

While some of the drafts feature arms of similar dimensions to our familiar minifigure, others are slightly narrower. In order to preserve the option of a rotating wrist, we see the distal arms flared by fluke of fashion, with outlandish cuffs (so very 90s), or generally chunky like those of a minifigure. As the design matured, the arms were moved out slightly and narrowed at the wrist: unfortunately, this meant that we lost the ability of this joint to rotate.

After reviewing these minidoll drafts, I can understand why some of the design choices were made. The proportion of the wrist to hand size were never going to be strong enough to allow rotation at this joint. The narrower neck, while not a standard stud, is in fact the same size as the standard 3mm bar. The legs were unlikely to be able maintain an appropriate level of strength if they maintained the requested proportions but articulated independently.

The minidoll as we know it today was the result of many years of customer research as well as trial and error. This year, we are seeing a few changes in the design of our initial five Friends. While some may seem dramatic to us today, in later years they will become standard, and unlikely to change dramatically. At least for the next five years.

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Tutorials

LD Digital Mosaic Creator

Text and images by Lasse Deleuran

Introduction

LEGO® mosaics are essentially brick-built pictures. As LEGO® creations they range from small pictures on buildings and decorations on vehicles to large portraits and even large-scale event builds. While some artists prefer to build mosaics entirely by hand, the medium is more approachable with the aid of software. Mosaic apps range from single click on-line tools to fully functional enterprise-like software that allows adjustment of absolutely everything imaginable. I'm the author of the mosaic app LDDMC, which has been developed with the aim of allowing you to easily tinker with mosaics in order to get the result just right. In this article I will give you some tips and tricks for creating good looking mosaics, and also explain some typical challenges you might face when designing mosaics for event builds.

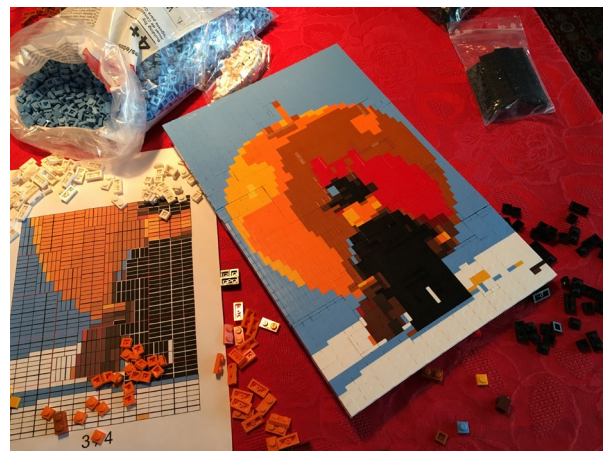


This mosaic was built by visitors of LEGO® Charity at LEGO®world Copenhagen 2015. It is built using 2x2 plates.

Construction Techniques

When using LEGO® to draw a picture there are a range of building techniques at your disposal. The classic building technique of placing 1x1 plates on baseplates is still very common, and you can improve the level of detail by using a smaller 'pixel' such as a 1x1 plate seen from the side rather than from the top. The tradeoffs when building a mosaic like this include a higher price, longer building time and the

aesthetics of having non-square pixels. You might get a better result by selecting some regions of your mosaic and building them with 1x1 plates lying on the side. This SNOT technique requires that you either glue the parts, use fancy construction techniques or use a transparent pane to keep the mosaic intact. Consider using SNOT building only when building small images that have both vertical and horizontal details, such as the Coca Cola logo on the truck trailer. Other exotic building techniques exist, such as placing round plates on top of normal plates, or clipping on bars and antennae to add thin lines.



This is a brick-built mosaic of the famous picture by Samsø.

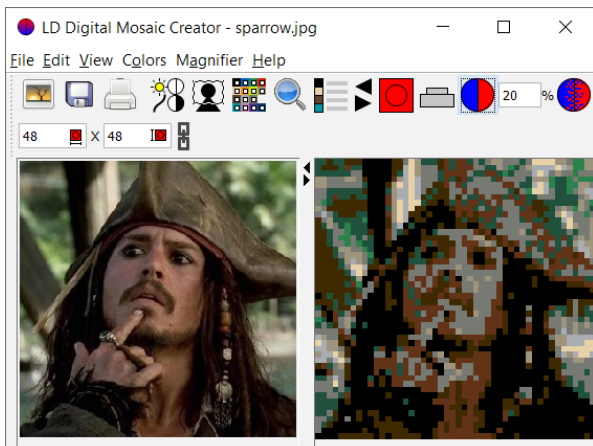


The SNOT construction technique requires a lot of pieces to keep the parts together.

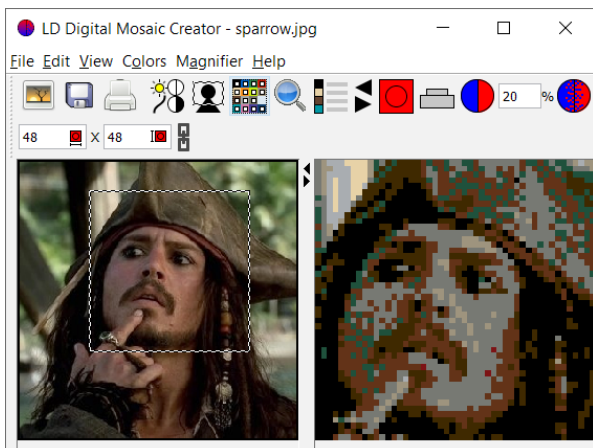
Size and cropping

When designing a mosaic you will most likely be limited to a specific size, such as a single 48x48 baseplate. While the baseplate is large, you will quickly find that it is very limiting as 48x48 is barely more than what is used for emojis nowadays. This is when the cropping tool becomes your friend: Every non-vital detail you can crop out leaves more bricks to be used for the motif. The new mosaic creator from LEGO® (seen on Leicester Square and LEGO® House) shows that you can even crop out sections of the motif in order to make portraits

more recognizable. Another handy trick used by that app is to use yellow as the background color in addition to the four grayscale colors (white, light gray, dark gray and black) for the motif. This leads us to one of the most important aspects of mosaics: colors.



This picture of Jack Sparrow is interesting. His costume and posture makes him recognizable.



By focusing on the face alone, lots of additional detail appears in the mosaic.

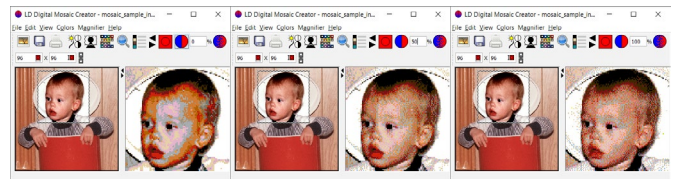
Colors

A stylish choice, especially for portraits, is to limit yourself to the four grayscale colors. You can add a fifth color either as in the LEGO® software mentioned above or by getting out your wallet and investing in some rare 'very light gray' 1x1 plates from the old LEGO® mosaic sets. Unfortunately mixing old and new gray pieces doesn't add any noteworthy detail.

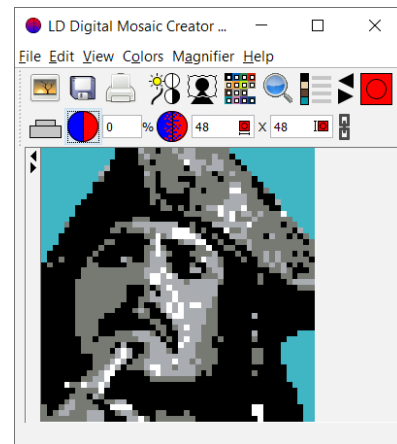
Fortunately you can get 1x1 plates in a large variety of colors, and you can design a mosaic with the specific colors you have available. Some apps even allow you to use an inventory so that it doesn't use more parts than what you have available in given colors! When designing a mosaic you have to make a choice regarding how to represent gradients and colors that are not on the LEGO® color palette. When selecting the color for a part in a mosaic, the obvious choice is to pick the LEGO® color that best approximates the original color*. This typically leaves you with a mosaic where colors are grouped in regions. For example, a portrait might become dominated by a single color for the face. 'Dithering', or 'color error correction' can be used to counteract this phenomenon. The idea behind dithering is basically to identify color deficits after the color approximation and use the colors of surrounding pixels to counteract these deficits. The study of colors is vast and well researched, and mosaic programs can often apply at least

one method for dithering an image. In LDDMC you can adjust the amount of dithering, as I have found this to be a good parameter to tinker with.

* See CIE94 and related techniques for how to measure color differences.



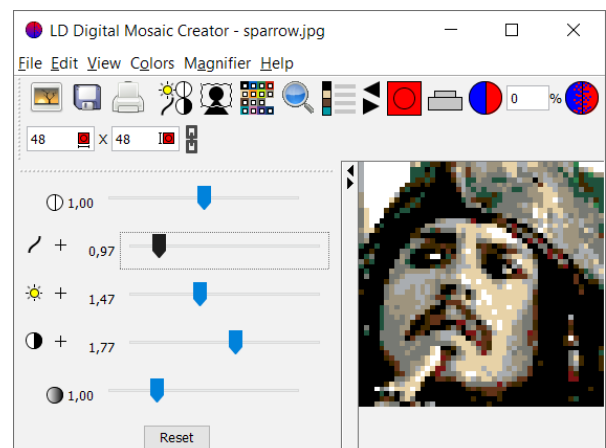
Dithering is set to 0%, 50% and 100% respectively.



Using the four grayscales and a background color.

Improving your results using filters

Sometimes it can seem impossible to get a good result no matter which colors and amount of dithering you use. This often happens in portraits where one of the gray colors typically becomes very prominent. When this happens, adjusting filters like brightness, contrast and gamma for the original picture can greatly improve the resulting mosaic. I have included these filters in LDDMC so that you don't have to reload the picture after adjusting it elsewhere. I typically increase the brightness quite a bit in order to get a good color balance, and contrast is increased to highlight details. Changing gamma has a similar effect to changing contrast (although the underlying mechanism is very different). Try it out for yourself and play around with these filters to get a good balance of colors and sharp contrasts. After doing this you might want to readjust the amount of dithering as well.



The cropped Jack Sparrow photo has been enhanced using filters.

Event Builds

Mosaics are particularly popular at event builds where NGOs or companies set up a big board or table for small LEGO® plates. Attendees build small sections of the mosaic on these plates which are then put together on the board or table to form the large mosaic. When designing such a mosaic you are faced with additional challenges to those mentioned above. In the remaining sections I will go through some recurring challenges I have faced when helping design mosaics for LEGO® Charity and their event builds at LEGO®world Copenhagen throughout the years.



LEGO® Charity was supporting BU&S (Children, Youth & Sorrow) at LEGO® World 2017 where the signature painting Party Birds was built as a LEGO® mosaic.



Attendees were given 8x16 plates to build.



Once finished, the plates were placed on a large board.

Make it fun to build

An attendee is typically given a LEGO® plate and a printout with building instructions. It is your job to make it fun to decorate the plate with colors. The fun goes away if there is only a single color on the plate or if there are so many chaotic

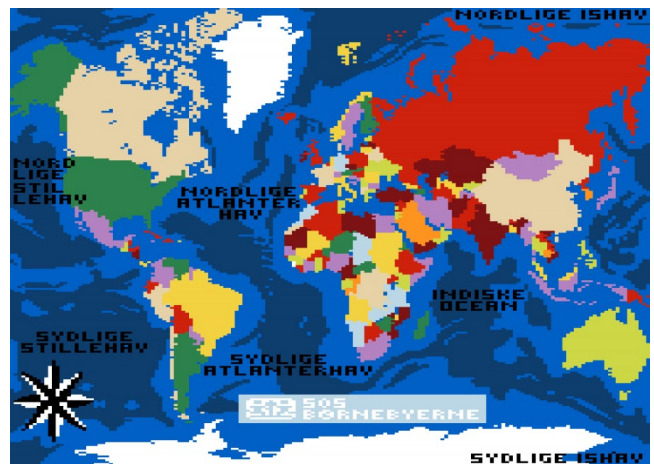
colors that the building experience becomes a chore. Find a good balance here by adjusting the amount of dithering.



For one of the mosaics the dithering was increased to make the colors of the background and flower appear closer to the original stamp. The white candle had to be completely white and this caused 22 of the 8x16 plates to be entirely white as well.

Text and logos

A large event mosaic often consists of both a photographic image and some text or a logo. The mosaic app can't distinguish between elements, so filters and dithering are applied equally over all of the mosaic. This can lead to reduced sharpness of text, or logos in the wrong colors. I always solve this problem by focusing on making the photography section look good in LDDMC first, before exporting the mosaic as a picture. The text and logos in this picture are fixed in Photoshop before being re-imported back into LDDMC from where the mosaic is printed. Make sure to save corrected logos and text as a layer in photoshop so you don't have to redo this in case you have to change the mosaic afterwards.

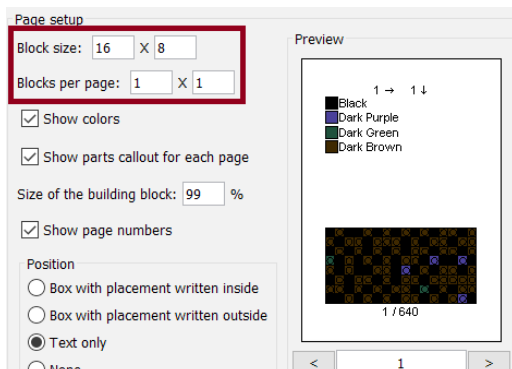


LEGO® Charity was supporting SOS Children's Villages Denmark at LEGO® World 2016. This year the mosaics were decorated maps. The text and logo were drawn by hand as described above.

Printing

The building instructions for event builds often consist of several hundreds of pages, so make sure to print to PDF in order to inspect the result before potentially wasting a lot of paper. Each page should correspond to a baseplate, which is done by setting the 'block size' to the size of the plates in the printing dialog of LDDMC. 'Block per page' should be set to 1x1. If you do not want to include a parts callout on each page, then consider increasing the 'size of the building block for each page' to 100% to fill out the page.

If your event is held in a country where attendees do not speak English, then consider translating the color names for the parts callout. You can do that by making your own translations file in the 'color_translations' folder and then restarting LDDMC to load your new file.



Setting the block size and blocks per page when printing for an event build. This example is for the Party Birds mosaic from 2017.

Sparring

Make sure that you have responsive and healthy communication with the people you are designing for. You should be prepared to potentially design a dozen mosaics before you get a result that satisfies both you and them. Backup every mosaic you create before moving on (Use 'Save as' in LDDMC and name the file accordingly) so you can return to it again at a later time. Last minute adjustments can be expected in case certain colors can't be delivered on time. An error in colors might even first be discovered at an event. In this case you should consider making color replacements.

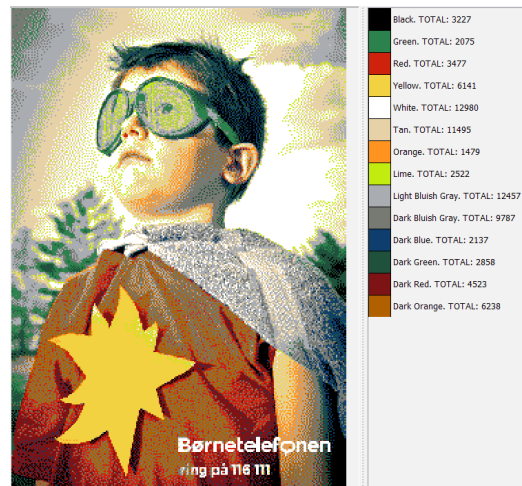
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At LEGO® World 2018 we had to build this picture from Børns Vilkår as a mosaic.



This was the first version of the mosaic and was a good starting point.



For the second version the yellow star was made more yellow. But being completely yellow led to the previously mentioned problem of not being fun to build.



The final mosaic as it stood at the event after several rounds of feedback.

Programming the EV3 with Swift Playgrounds

Text and images by Ahmad Sahar

Hi, I'm Shah. I'm a professional trainer specialising in MacOS and iOS software and hardware, and I also conduct classes on iOS App Development and LEGO® Mindstorms.

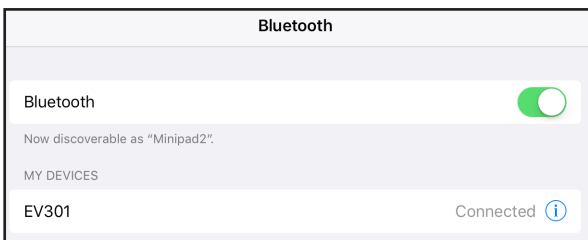
Today we're going to learn how to program LEGO® Mindstorms EV3 with Swift Playgrounds. You ready? Great! Let's go!

What you need:

- An iPad with Swift Playgrounds installed
- LEGO® Mindstorms EV3 Education (set no. 45544) or Home (set no. 31313)

Before you begin

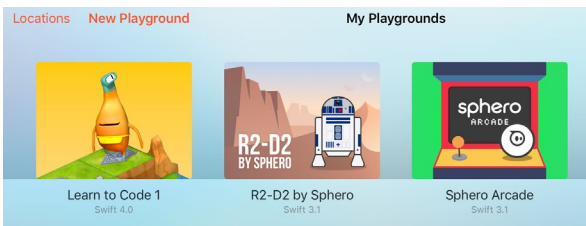
For this lesson you only need the EV3 Brain. Make sure you have fresh batteries in your robot and your iPad is fully charged. Pair your iPad to your EV3 Brain via Bluetooth.



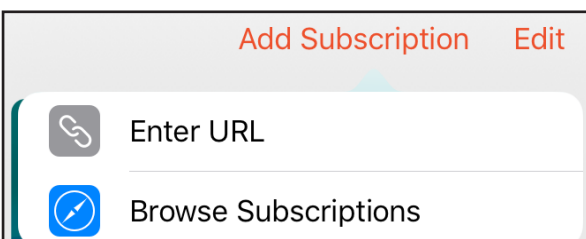
Hello World

Traditionally when learning a new programming language, the first program we write will display the words "Hello, World". Let's do that now.

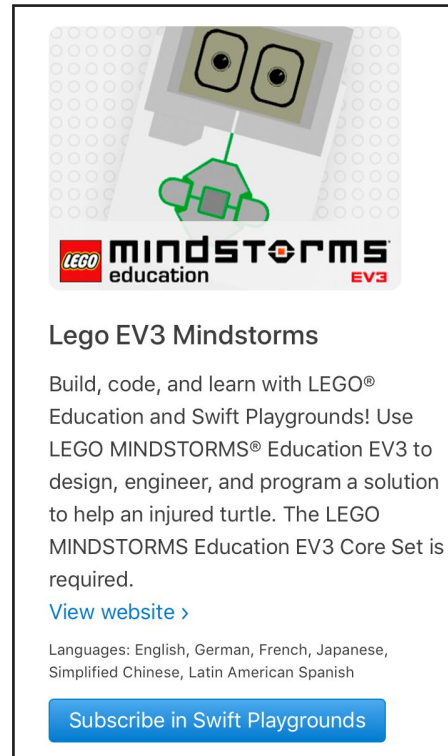
Launch Swift Playgrounds and choose New Playground.



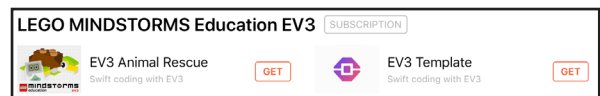
Then tap "Add Subscription" and "Browse Subscriptions".



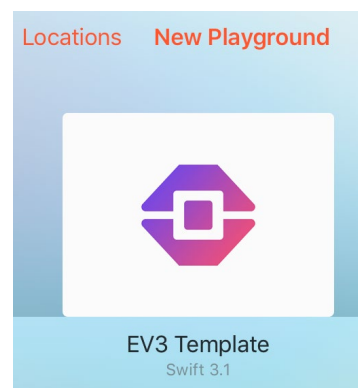
This will take you to a web page showing you the available subscriptions or platforms you can use with Swift. Find LEGO® Mindstorms and tap Subscribe in Swift Playgrounds.



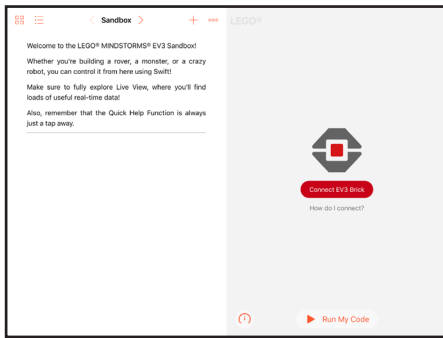
After you subscribe, you should see the LEGO® Mindstorms Education EV3 category in the Swift app. In that category you should see EV3 Animal Rescue and EV3 Template. For this tutorial we will use EV3 Template, so tap the Get button next to the EV3 template. This will be automatically downloaded into your iPad.



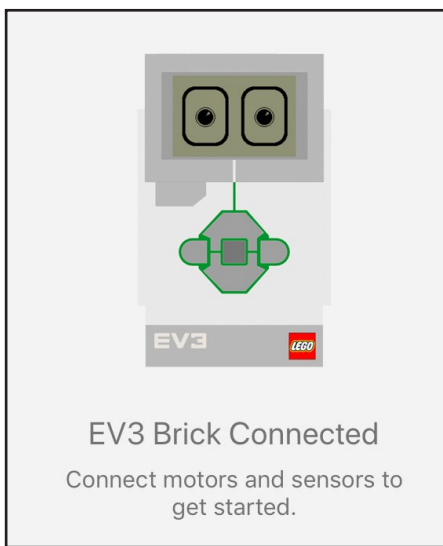
Once it has downloaded, tap it to open it.



The screen now looks as follows. On the left side of the screen, you can see a place where you can type in code. On the right you can see the Mindstorms logo and the Connect EV3 Brick button.

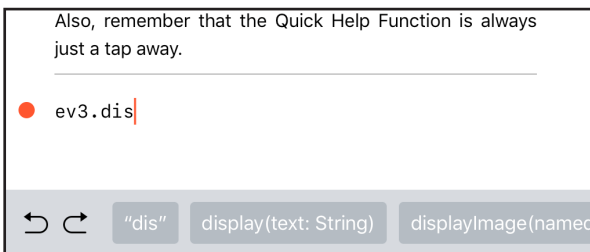


The first thing we will do is connect to the EV3 brick from within the Swift app. To do so, Tap the button, then tap "EV3 Brick". The iPad should connect to the EV3 brick and display EV3 Brick Connected.



We will start typing code in the left side of the screen. Swift has an autocomplete function, which means you do not need to remember the complete command to be able use it correctly.

Type in `ev3.dis` and from the list of suggestions choose `display(text: String)`



Note that String is highlighted.



Tap it and type in "Hello, World."

The completed command should be as follows:

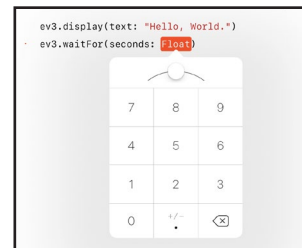
```
ev3.display(text: "Hello, World.")
```



Now we need to make the EV3 pause briefly so we can read the message. Type `ev3.wa` and at the bottom of the screen, choose the following suggestion: `waitFor(seconds: Float)`

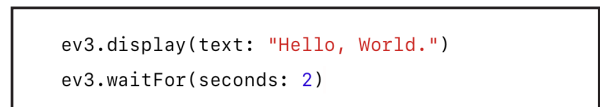


Tap Float and enter 2 in the number picker.

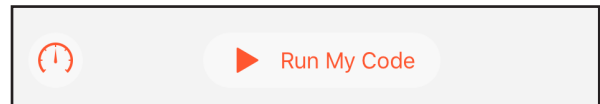


The completed command should be as follows:

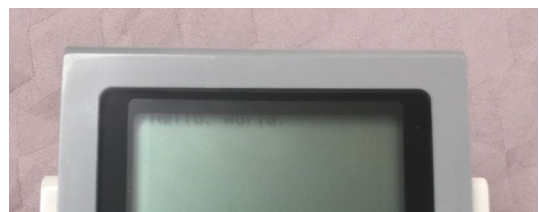
```
ev3.waitFor(seconds: 2)
```



Tap Run My Code.



Success! The Programmable Brick displays the words *Hello, World.*



You have just written a Swift program for LEGO® Mindstorms EV3. Yay!

Now experiment by putting in more lines, and by changing the words to display.

In the next lesson, we'll see how you can make your robot move.

See you then!

#



MILS

Modular Integrated Landscaping System

Modular Integrated Landscaping System (VIII)

Text and images by A. Bellón (Legotron)

We have added new modules to our MILS dioramas, and as we work on different types of dioramas we have recognized the need to be able to connect these different types of terrain to create mixed setups.

Transition modules between different terrain types

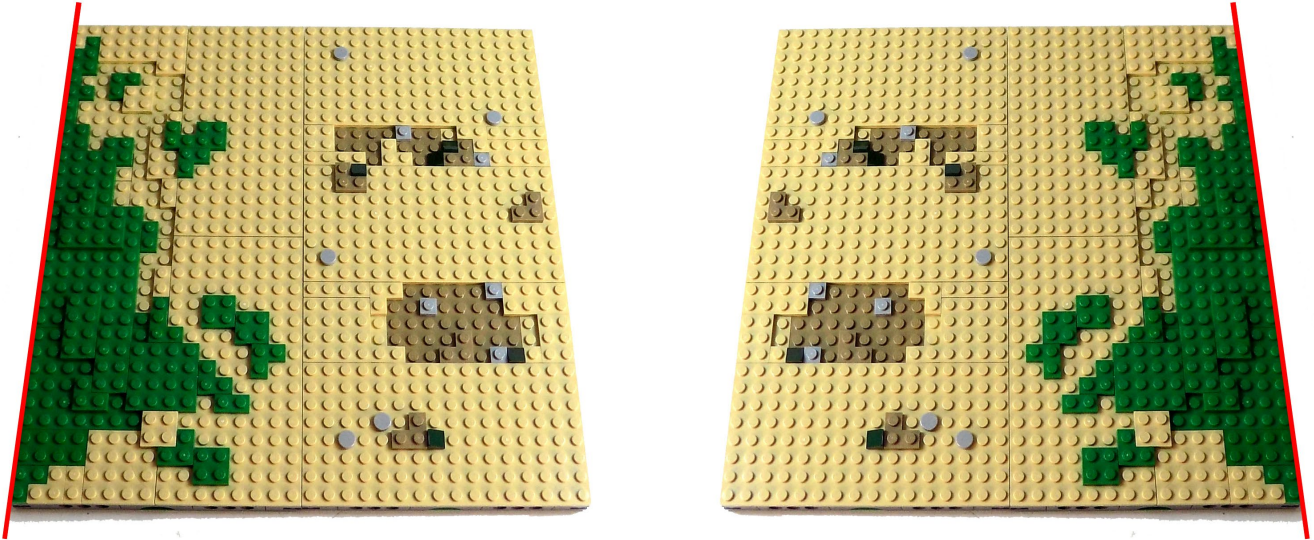
This concept is basically the same as that developed in the second article in this series (HispaBrick Magazine® 14, page 61) regarding coast modules. What we will investigate here is how to create modules which allow you to connect different types of terrain modules, for instance grass and snow, or grass and earth.

All the modules you will see here fit in the general category of CTM (Compatible Terrain Modules). Their orientation is obviously determined by the type of landscapes we want to link, and to this end we need to define where each type of terrain will connect, and create a gradual union between the two rather than a straight line.

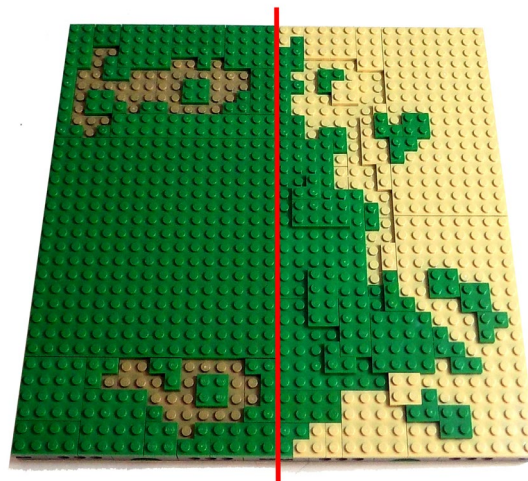


In each 32x32 module there will be one part that represents one of the two terrains you want to combine and another with the second type of terrain. If you draw a straight line separating the two types of terrain, from the top to the bottom of the module you can distinguish between the following cases:

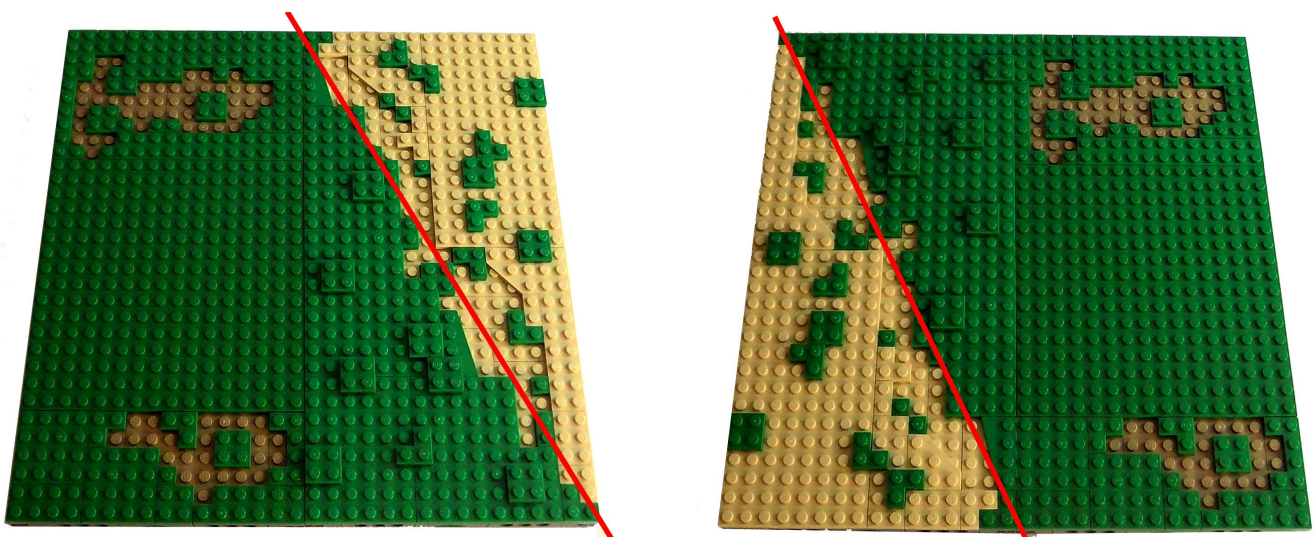
a) Straight separation, with a border at one of the edges of the module (either left or right) that can be changed by rotating the module 180°.



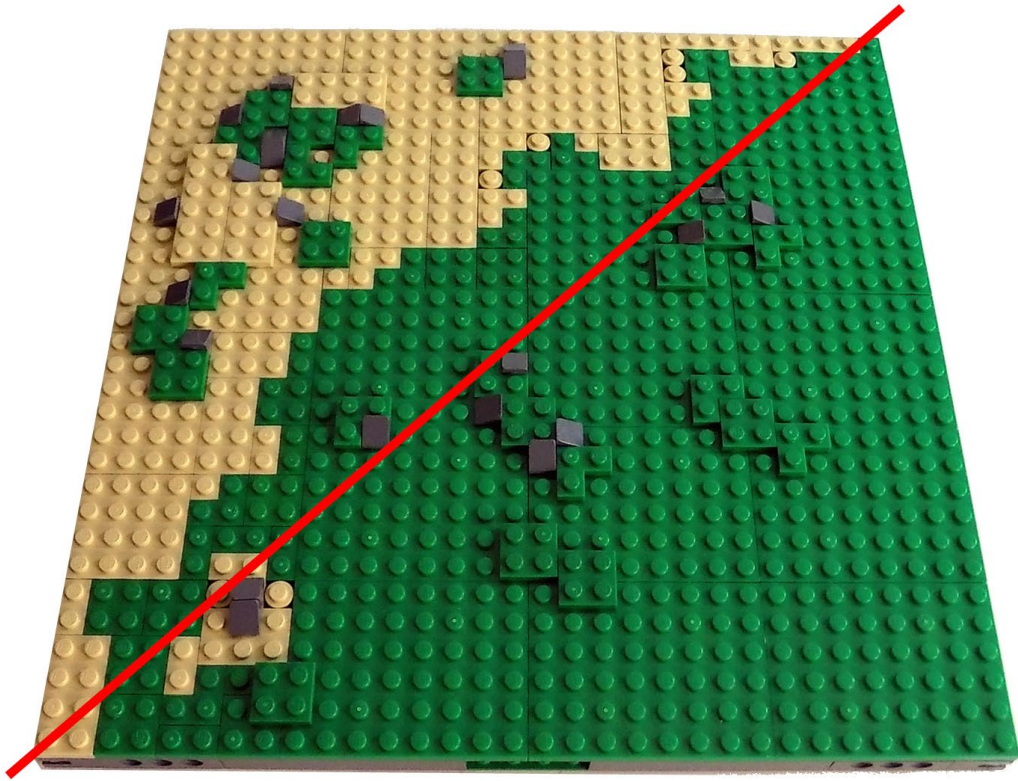
b) Straight separation through the centre of the module, with a limit in the centre of the module (i.e. at 16 studs).



c) Slanted separation, starting on one side and ending at the centre of the module (i.e. at 16 studs). Changing the orientation of the module this changes to a start in the centre and an end at one end.

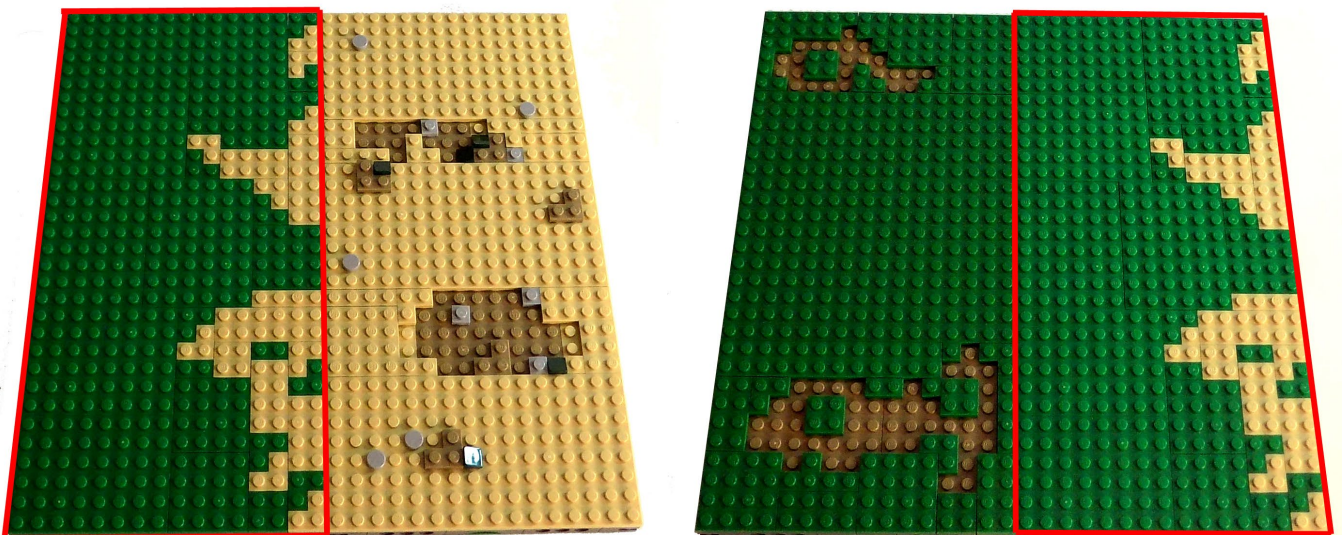


d) Slanted separation, starting and ending in opposing corners, crossing the entire module.

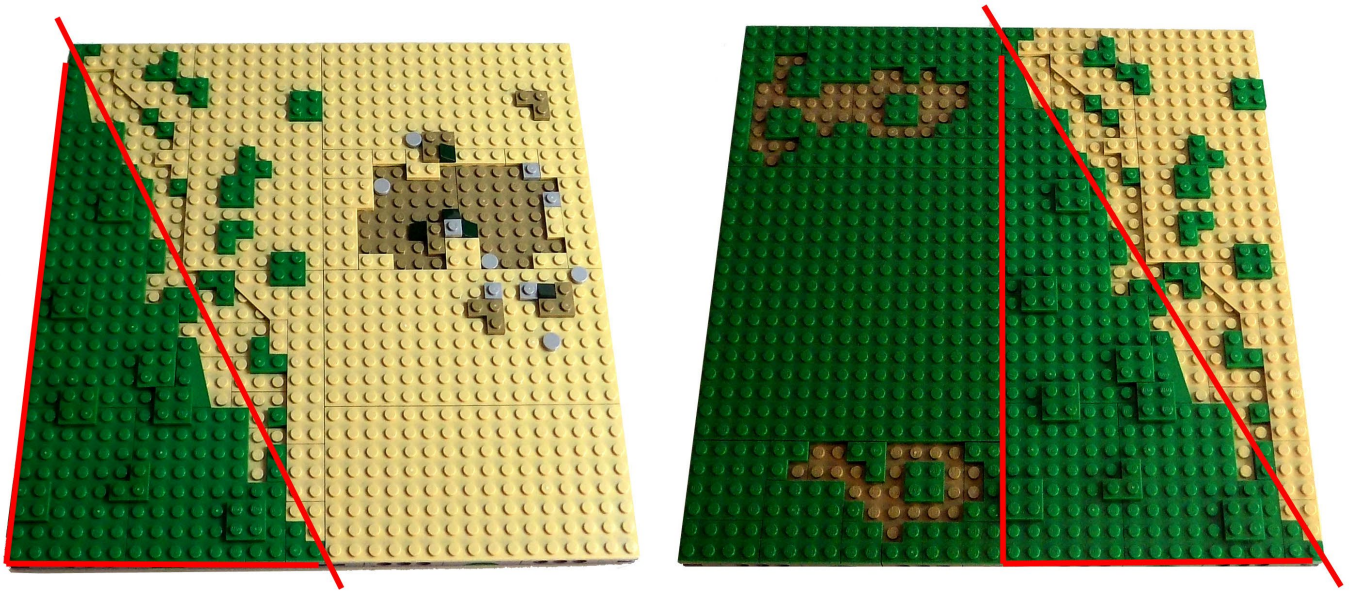


It is important to point out that these four cases can also be used horizontally, simply turning the modules 90°. So with these four simple options you can obtain a great variety of transitions between terrain types with different characteristics.

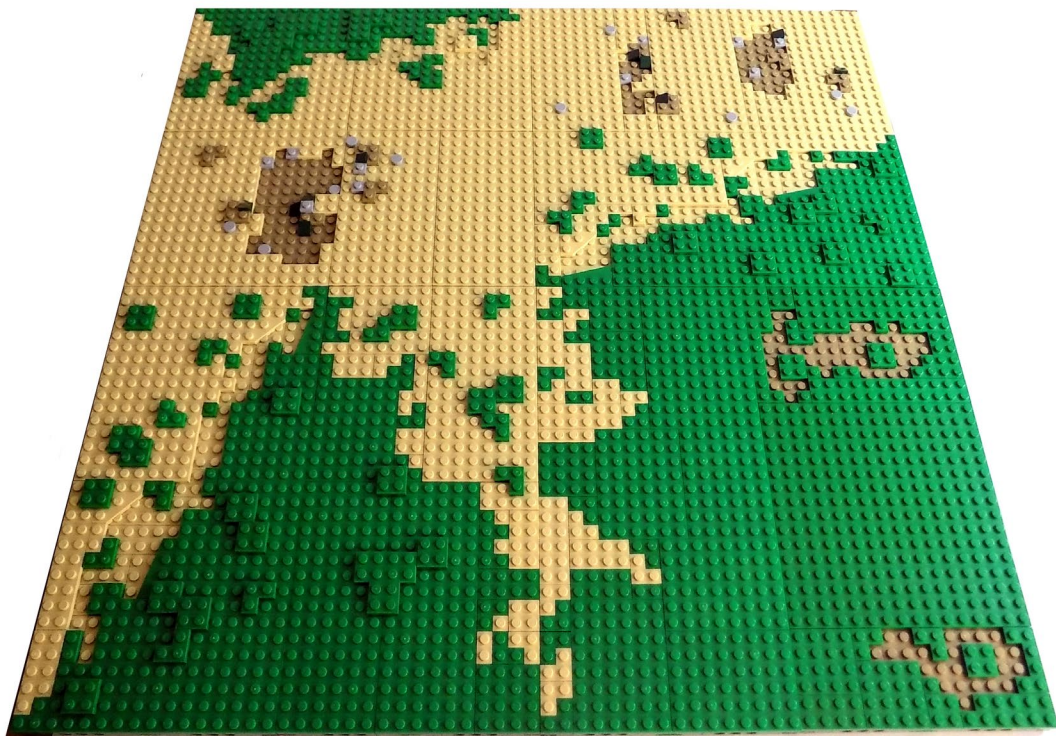
One way of creating more variety in the different edges between types of terrain is to build these modules on paired 16x32 stud sections. The MILS module is then made up of two parts that can be combined in different ways, allowing for many more combinations without having to build a multitude of different MILS modules. You simply need to build modules with straight and slanted separations and then combine them to create the desired edge for each occasion. In this example you can see how an element with a straight line and another one with a single type of terrain (both 16x32 studs) can result in a separation either in equal parts or where there is a prevailing terrain:



This possibility can also be applied to modules made from two 16x32 sections with a slanted separation between terrain types. You can create different combinations to separate terrain:



In this final example you can see how you can create realistic terrain with just three sections – straight, slanted to the right, and slanted to the left – which have been combined here to make up four MILS modules. The fact that the terrain is modular doesn't mean there has to be a lower level of detail, even when the modules are pre-built.



MILS: <http://www.abellon.net/MILS/>
#

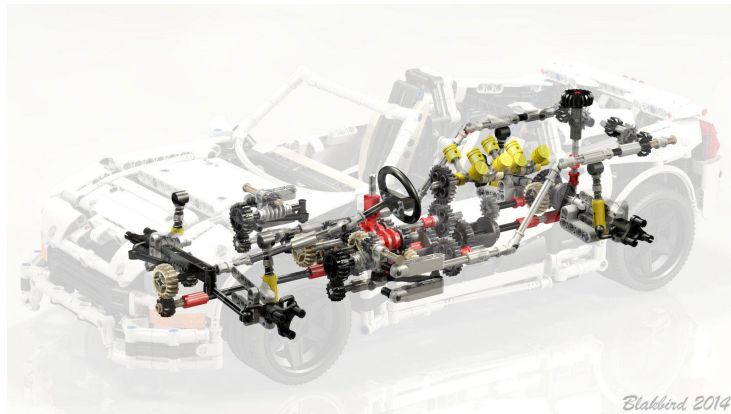


Gearbox

Text and images by Paul Boratko

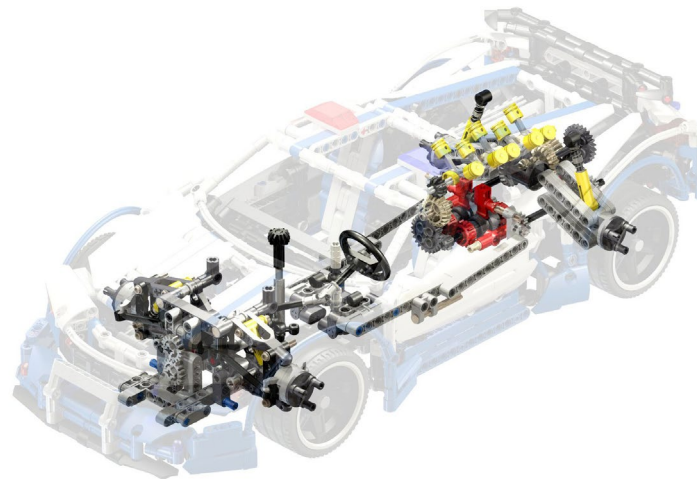
For some builders, when creating a new Technic supercar, designing the gearbox can be the most enjoyable part, or the most frustrating.

When I start building a new car, I normally start with the gearbox and try to come up with something that is different from my previous one. First you have to decide what type of gearbox you want to implement in your car. A standard pattern shifter (similar to set 8448), a linkage style mechanism, or a sequential shifting system.



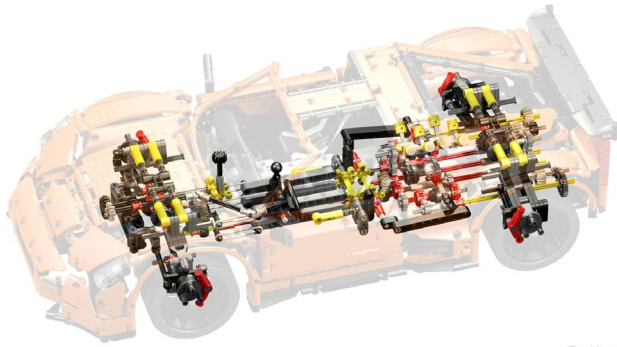
Standard Gearbox

Standard shifting systems are the easiest ones to develop as your own hand movement controls the gear that the car is in and you can select any gear you want. While this is one of the more reliable gearboxes used, one disadvantage is that it can take up quite a bit of room between your seats resulting in a somewhat disproportionate interior.



Linkage Gearbox

Linkage style mechanisms offer more of a challenge as the gearbox is in a different location to your standard gearbox and a series of steering links or liftarms are used in coordination with a shift stick that pivots in various directions. These steering links and liftarms are then moved by the shift stick to engage and disengage the driving ring into the desired clutch gear. Linkage style gearboxes are great because they minimize the room between the seats giving a more natural look to your model's cabin. One downside of this system is that if you are very aggressive shifting gears it could be possible to engage 2 gears at once resulting in some problems. Installing a fail-safe into your linkage system is recommended to prevent this from happening.



Sequential Gearbox

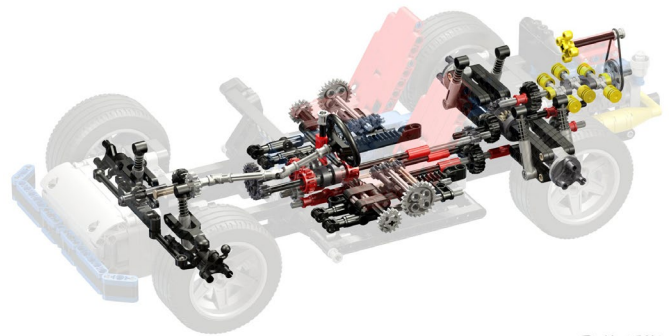
Blakbird 2016

Sequential shifting systems are probably the most difficult as the gears change both up and down one at a time in a sequential order by a single movement. There are numerous ways that the gears can be changed, such as turning a knob, pressing a button, or pulling a lever. One of the more popular sequential mechanisms used by AFOLs is a stepper system (similar to the one used in set 42056). However, many builders have discovered other ways to build sequential transmission mechanisms that work well enough to suit their needs.

Once you have chosen the type of gearbox you want to use, the next step is deciding how many different speeds you want it to have. Keep in mind that the more speeds you have, the more gears are going to be used. This in turn is going to lead to more friction which can possibly cause issues like gears slipping, working themselves loose from axles, or possibly breaking over time. Usually it is 1st gear in a non-motorized model that when pushed along has the most resistance. Something else to keep

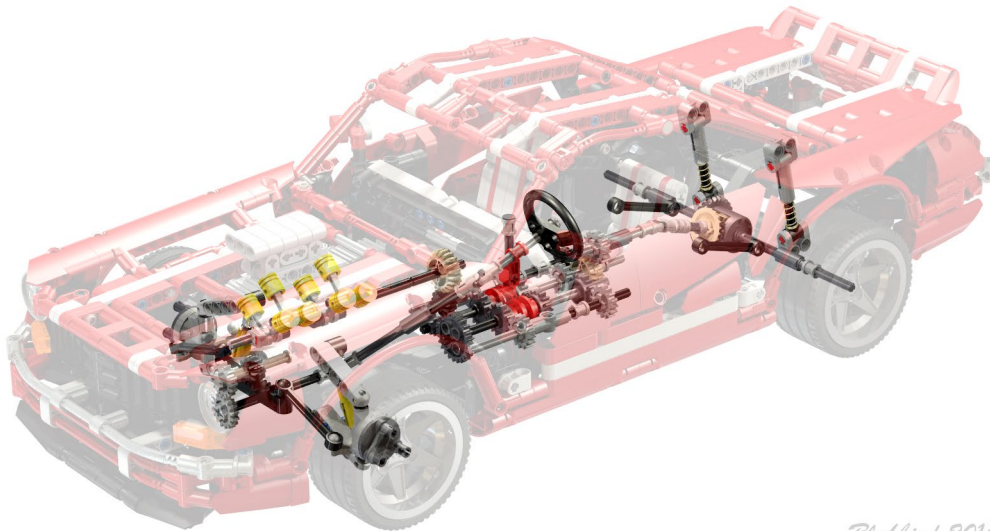
in mind is that while your gearbox may seem to work perfectly fine, adding a fake engine also adds further friction.

The key to building a smooth gearbox is to reduce friction as much as possible and keep everything true. One thing I recommend when building your gearbox is to try as much as possible to avoid using perpendicular connectors mounted on axles to support the axles that your gears and driving rings are using. This is because perpendicular connectors on axles are not true and can cause your gears to slightly bind up. This leads to having to monkey around trying to line up these connectors ever so slightly on the axle to match the opposite side. You can try this out for yourself by placing five normal perpendicular connectors on a 5L axle and then take a 5L Liftarm and try to line up each of the five holes against each other. You'll see that the holes don't all line up true with each other. However, if you use only liftarms, you will not run into this problem since the holes in liftarms are true with one another.



Opposite Running Gearbox

Blakbird 2016



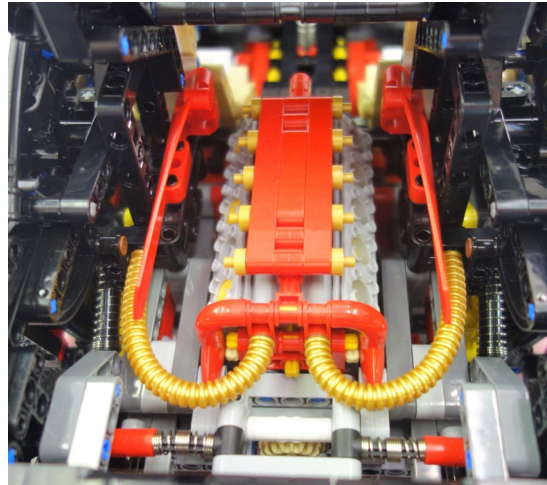
Linear Gearbox

Blakbird 2014

Unfortunately LEGO® gearboxes turn out to be much more complex than necessary due to limitations with the amount of engageable clutch gears that are available. Sometimes you need to be very creative with how you set your gearbox up. I've created a few standard linear 4-speed gearboxes to avoid an upper and lower level of gears and save depth with the chassis. I've also made gearboxes that run in a non traditional way with the axle from the drive wheels running through the selectable clutch gears first and then to the various gears that create the speed ratios and then to the fake engine. It is fun to be creative and try new things that you've never seen before. You never know when you might even surprise yourself.

#

Constrictor by Paul Boratko



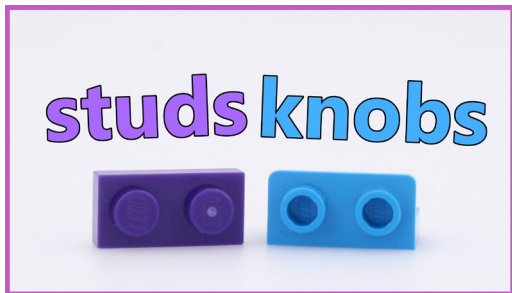
Minidolls vs. Minifigures: Head On

Text and images by Jasna Miklin

The head is a substantial part of a mini, so it's important to know how to use it.

We'll again only look at the human-like minis, and I'll give out points to the minis for outstanding achievements wherever I find them.

A quick note about the terminology: I'll use 'stud' when referring to the round shapes on top of LEGO® pieces with the LEGO® logo molded into them, and 'knob' when talking about the stud-wide ring-shaped bumps.



Shape

A minifigure's head is a round brick that's somewhere between a 1x1 round brick and a 2x2 round brick. And, out of these three, it definitely looks best on a minifig torso. It also has the best chance of rolling off my desk while I'm working. The fig's neck is integrated into the bottom part of the head piece, which connects to the body with a stud-wide hole. At the top of the head, there's a knob. This makes the heads easily stackable, which can be convenient if you're constructing a head tower.



Even a superficial comparison of the doll and fig head pieces will reveal many differences. A minidoll's head is shaped like a simplified human head. Its most prominent features are the chin and the nose. They also use three slightly different molds — one for all female characters, one for boys, and one for adult men. All of them attach to the body via a bar-wide hole and they all have a knob on top. The neck isn't a part of the head, but the body. So, it's easier to make a head on a stick, but you'll need to get a bit creative if you want to stack these heads.



In spite of all the differences, there are many similarities too. Both have no ears, rely heavily on prints for facial features, are roughly the same size and have a knob on top. The last two characteristics allow for the interchange of almost any piece of headwear.

Prints

For a mini to have a face, it needs to be printed-on. We'll look at how well the faces reveal the emotion, gender and age of the mini.

The minifigures started their face-evolution journey with a curved line and two dots. This smile is very simple and yet very effective in communicating the joy the mini is feeling.



Most modern figures have a mouth, eyes and eyebrows. Female minifigures also have lips and eyelashes. No matter who or what the fig is representing, the face is wonderfully expressive. Sometimes maybe even too much. At some point LEGO® experimented with noses on the figs, but it didn't stick.

Older people and kids are represented very well, while the difference between a teen and an adult can be hard to spot.





The dolls also started with a simple smile and eyes; and eyebrows, eyelashes and lips. They had more detail than the standard minifig face, but still conveyed the same emotion. Since then, the minidolls have grown their emotional spectrum considerably.



The focus of all of the minidoll themes is on teens and their parents, so they are great at distinguishing them. We still don't have an official child or senior minidoll, so we can't *officially* review them.



So we can see that the face prints on the minis are fairly similar. The biggest difference is in how the eyes are portrayed. The doll's eyes are more anatomically correct, but that doesn't really add or detract anything from the mini's ability to show anger, excitement or indifference. That's why both the dolls and the figs get a point for expressiveness.



We are not yet done with prints. Because of the symmetrical nature of a minifigure head it's possible to print two faces onto one head. It's advisable to cover the second face with a headwear item, just to avoid some awkward situations. Some faces and hair pieces are better at this than others, but it's still an excellent option to have, so the minifigures get a second point. It's now 2:1 for the figs.



Neck Accessories

The neck is a popular area on minis for squeezing in an accessory. Mostly capes, but also armor, wings, necklaces, beards and more.

The figs can't use any of the dolls' things. Not the capes, not the necklaces, not the heads.

Due to the minidolls' slimmer neck, they can put on everything a minifigure can. True, many of the accessories will aesthetically not be the best fit, or will at least wobble, but you can use them. You can even use a figure's head on a minidoll. It's not a secure fit without some help, but again, it can be done.



This ability to borrow accessories and heads from the figs earns the dolls their second point today, making the final score for this battle 2:2. If we add this to the 6:4 result for the minidolls from our previous two battles, we can see that the dolls now lead 8:6 in the war. But don't rush to declare a winner, because in the final battle the minis will have to 'Strike a Pose!'.

This article is also available as a video on the BrckoMotion YouTube channel: <https://youtu.be/9vRfCs98dqE>

Take control of your MINDSTORMS bricks (3)

Text and images by Oton Ribić

If you have been with us for the two previous articles, this time is where the fun part begins: assembling our first 'real' messages to be sent to the pBrick to order the performance of an action. For now, we will stay focused on the EV3 system, whereas the NXT (which is a tad more complex) will be covered later.

As explained previously, there is a standard 'header' for each message, i.e. a section that announces how long the message will be, along with some other parameters. This time, let us go further and construct the body of our message for an EV3.

Initial parts

Let us begin by trying to rotate a motor, which is probably the most common operation anyway. There are various ways to control a motor, including specific steps, how much to turn, at which speed and power, ramp-up, coast, etc. — but there is also a much simpler operation, involving just making a motor turn indefinitely. That will be our starting point.

All the bodies of such messages are constructed by specifying a set of variables, i.e. parameters required for the operation — such as speed and motor in this case, and other data for other types of jobs — and then sending the instruction to make it act on the received data. In our first case, we need to specify three parameters: which motor we intend to turn, at what power or speed, and in which direction. Let us try with the first motor, at 75% power, in a positive direction.

First we need to calculate the code of our motor, as it keeps being used throughout the message. It is a rather straightforward job of exponentiating 2 to the power of the motor number, with the first one being zero. So, the first motor's code is 1, the second's 2, then 4 and finally 8 for the fourth.

This can be used to assemble the first part of our message, featuring polarity. If we want to turn the first motor in the positive direction, our message will specify this with bytes: 167, 0, 1, 1. The 167, 0 is fixed; the next number is a code for the motor, and the final 1 specifies positive direction. Otherwise, the final byte would have been 63.

You may be asking yourself — why these codes exactly? Why 167 of all numbers? Well, the simplest and the most straightforward answer is that this is the 'language' EV3 uses to communicate. Though it may seem arbitrary, there is an underlying logic which supports it, though getting deeper into it would expand this article beyond tolerability, so let's for now just stick with the numbers we have.

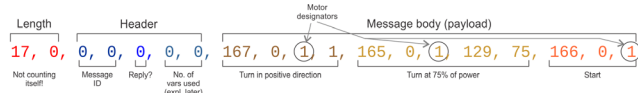
So, our message starts with 167, 0, 1, 1. Let's continue by specifying the speed we want it to turn at. The bytes we need are 165, 0, 1 (again the motor), 129, and finally, the power percentage as a number — in our case, 75. And then, on we go with the final instruction to 'make it happen': 166, 0, 1.

For the assembly!

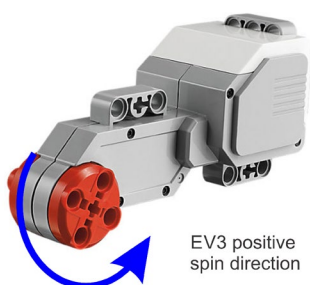
All right, we've collected all we need and we can start building our message. Let's begin by concatenating these fragments in the aforementioned order, to get 167, 0, 1, 1, 165, 0, 1, 129, 75, 166, 0, 1. This is the body of our message containing three segments, specifying the direction of rotation, its desired speed, and the instruction to start.

But, remember from the last time: we have to add a header to this body to construct a final, proper message which the EV3 can receive and interpret. There are two bytes which specify the number of this particular message, so that the EV3 can refer to it when replying. We can freely keep them at 0, 0 for this exercise. And the number of globally used variables is also 0. So let's add three more zeros to the front of our message body.

And then there is the final step: in order to be sure the message has been received properly, the EV3 pBrick needs to know how long it is. So let us count the number of bytes the final message contains, to come up with the figure 17. We have to represent this as a two-byte number in front of the entire message, with the smaller byte (properly said in engineering: least significant) being first. So the length designator (which doesn't count itself!) will turn out to be 17, 0. This makes our final message look like this: 17, 0, 0, 0, 0, 0, 0, 167, 0, 1, 1, 165, 0, 1, 129, 75, 166, 0, 1.



Just go ahead and send these bytes to the serial port you have created for the purpose and connected the pBrick to, according to the data from our previous articles, and the first EV3 motor should start spinning! Of course, the question of how you prefer to send these bytes over to the pBrick is entirely down to you, i.e. down to your choice of the language or system you prefer using. C and its derivatives mostly have native support for writing directly to ports; Python has an excellent PySerial library; most at least half-decent languages have at least one way to do so. Don't worry, serial ports are such a stable and mature technology, that there is no question of your system not supporting it.



Keep in mind that this instruction just says 'start spinning' without any time or turn limit. So it will indeed keep turning until told otherwise or (obviously) turned off. In the future we will dig a bit deeper into a more complex form of the turning instruction, which lets the user control exact movements and parameters.

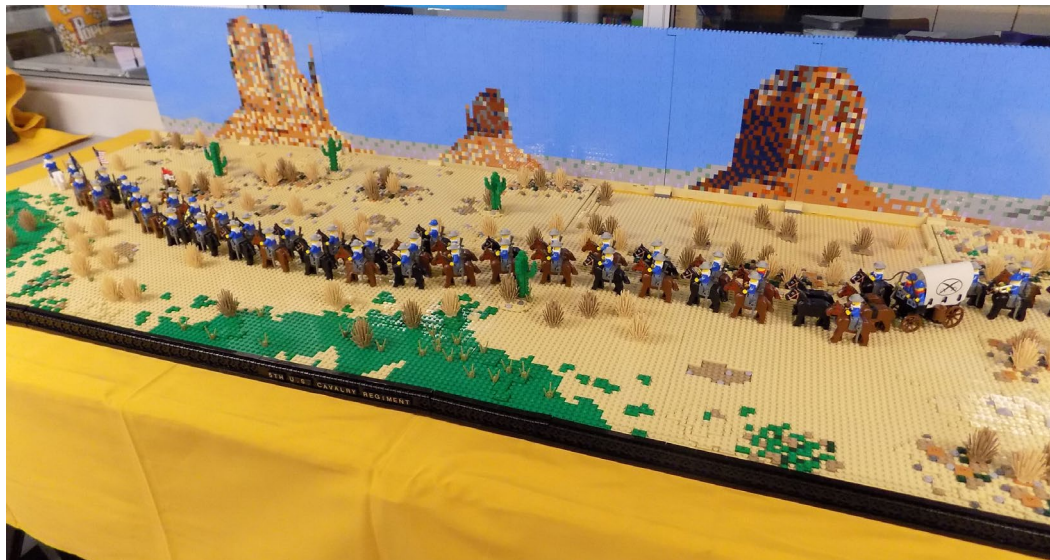
But before that, we will have to examine how the pBrick has actually replied while obeying the above messages. Although it is not always mandatory, any kind of controlled movement is unthinkable without monitoring the pBrick's replies and acting upon them. So stay tuned!

#

Exhibition of LEGO® constructions at the XVI Collectors Fair in Mungia

By A. Bellón (Legotron)

Pictures by A. Bellón (Legotron)



Once again, Bitxikiak [1], organisers of the Collectors Fair in Mungia, invited us to celebrate our already customary exhibition of LEGO® constructions as part of the activities related to the fair. This year was the 16th edition of the fair and it took place on April 7 and 8, 2018.

This year's event has had the highest number of participants ever, as once again AFOLs from all the associations in the area participated, together with members of HispaBrick Magazine®. Year after year, this gathering of LEGO® fans has become a regular feature as there has been a LEGO® related exhibition at the fair since 2006. At present, it is a high point for AFOLs in the region. The level of participation meant the rooms we had at our disposal were too small to display everything and we had to make a selection, being sure to exhibit as many different play themes as possible. The exhibition was divided into two parts: one room with classical constructions, dioramas, MOCs and a play area for kids, and another smaller room for MINDSTORMS and Technic.

The room that housed MINDSTORMS and Technic, which in addition to having a large display of Technic models also had a GBC layout [2] with more than 27 modules, was constantly overcrowded – but if we had been in a room three times the size the result would have been the same. The GBC layout and the constructions shown there were the sensation of the exhibit, and despite the rain there were people queuing to enter during most of the opening hours.

Thanks to the participation of new exhibitors, there was a spectacular steampunk display that drew a lot of attention. The MOC of the Palacio de la Magdalena also received a lot of interest – this year it had a fully furnished interior full of the smallest details. We also continued with the incorporation of MILS [3] in dioramas for different themes, and for this event we added a western diorama of which 90% was built using this landscaping system.

HispaBrick Magazine® would like to thank everyone who participated in this year's event for the excellent work they have done and for the great atmosphere we had at the exhibition. We would also like to thank the association Bitxikiak for the way they treated us and for allowing us the use of their rooms to celebrate our meeting and activities.

#

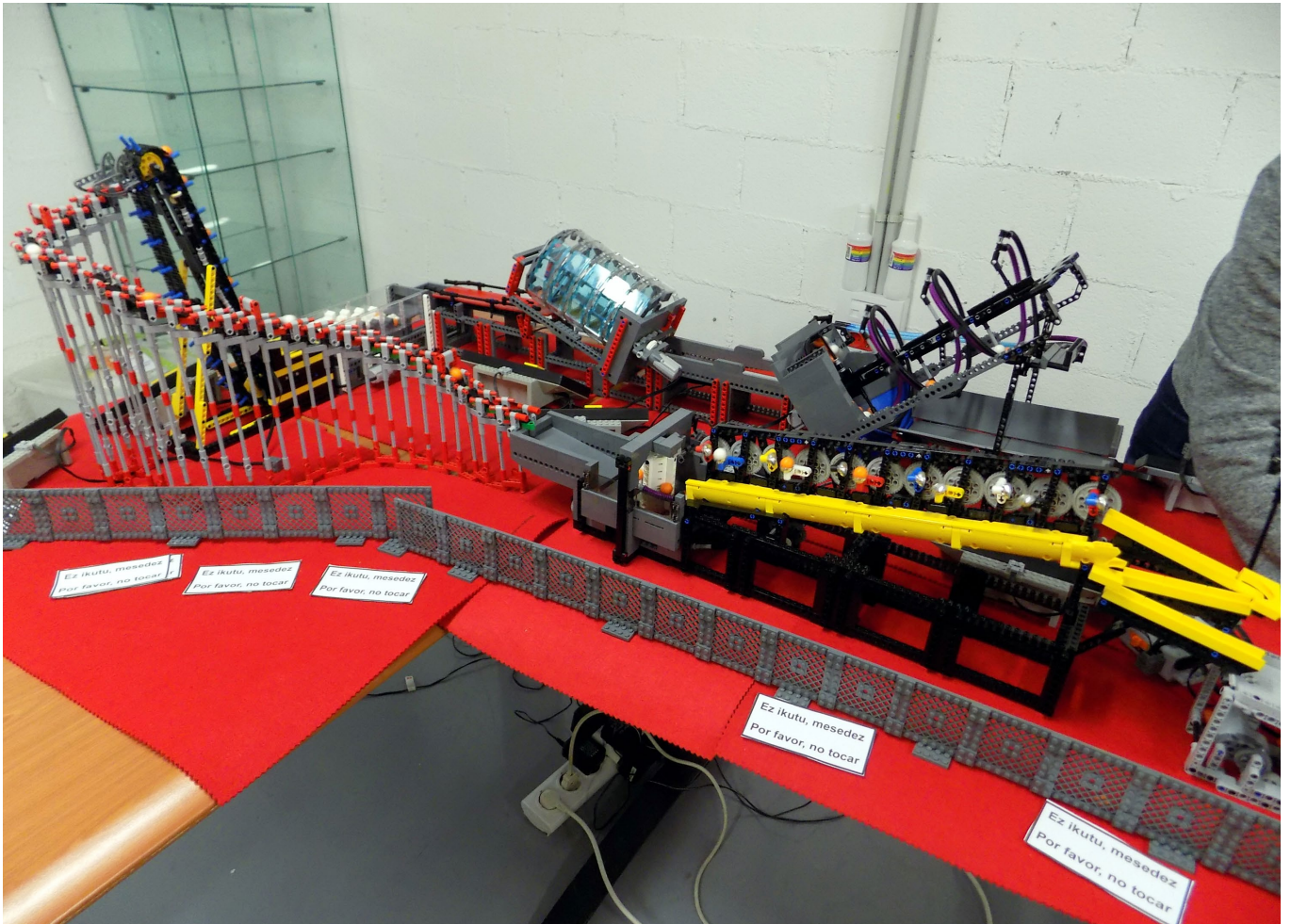
[1] Asociación Bitxikiak: www.bitxikiak.org

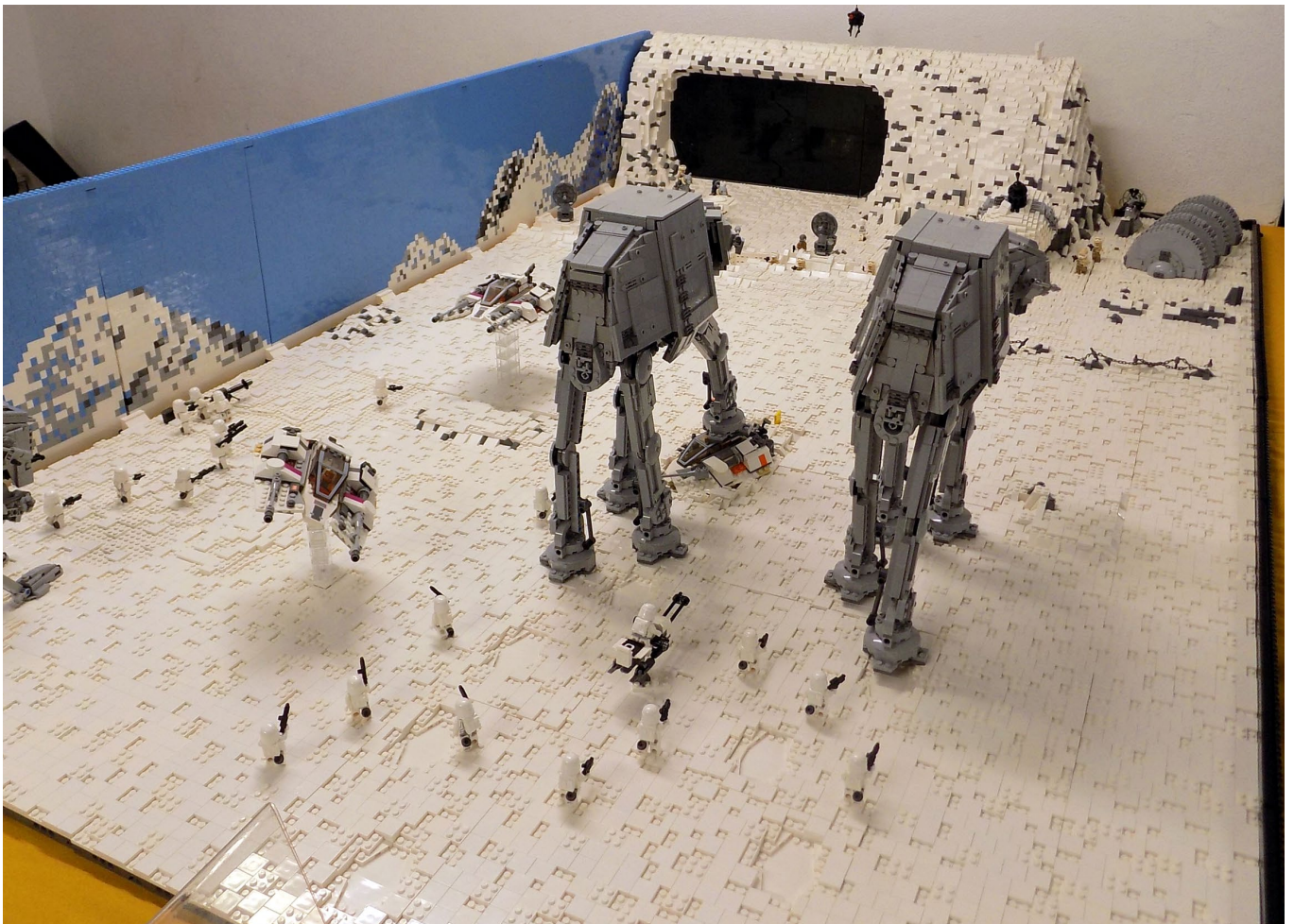
[2] Video GBC: <https://www.youtube.com/watch?v=FIDHzIFRIRQ>

[3] MILS (Modular integrated Landscaping System): <http://www.abellon.net/MILS/>











Reviews

Review: 4002017 - Nutcracker

Text by *lluigib*

Images by *lluigib* and LEGO® System A/S

Set: Nutcracker

Set number: 4002017

Parts: 732

Recommended price: NA



2018 is not only the 10th Anniversary of HispaBrick Magazine®, but it is also the 10th Anniversary of an exclusive series of sets: the Christmas gift set for LEGO® employees.

In different ways (trades, gifts, auctions, reviews...) I have managed to get 8 of the 10 existing sets. I am only missing the sets of 2009 and 2010. To celebrate the coincidence of anniversaries, I had the opportunity to build the set from 2017.

The reference number usually coincides with the year in which the set is released. For example, the first set was number 2008. There are two exceptions: 2012 and 2013. The set from 2012 had the reference no. 4000007, and switched from the 4-digit numbering to the one used for special sets starting with 400XXXX. The set from 2013 had the reference no. 4000013, which coincides in its last two numbers with the year of the set's release. Since 2014 the numbering of 400YYYY is used, where YYYY are the four numbers of the year.

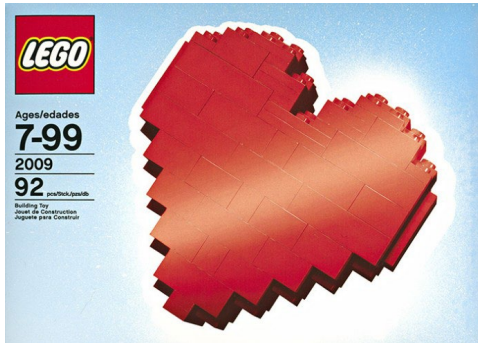
2008 - 2016

I will give a short description of the different sets from 2008 to 2016, before seeing what the latest set from 2017 is like.

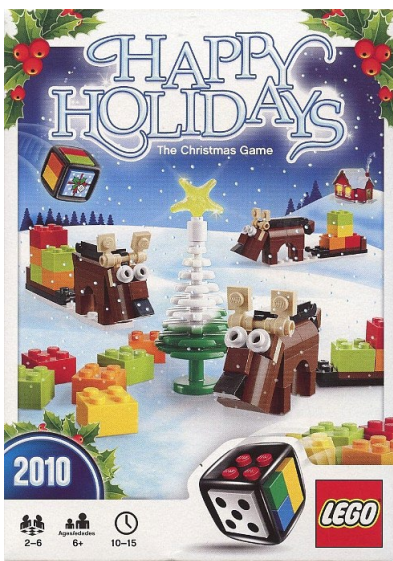
In 2008 the set was a heart made up of 92 pieces, in a polybag. The heart is '3-dimensional' and the size is 9 bricks high, 11 wide and 4 deep. It has some texture made with plates.



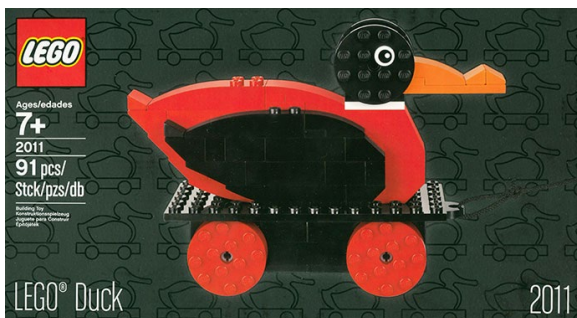
Curiously, in 2009 they repeated the same set, but presented in a box instead of a polybag. It is exactly the same design with the same number of pieces.



In 2010, at the height of popularity of LEGO® Games, the Christmas set was 'Happy Holiday – The Christmas Game', a game based on fun reindeer built with pieces for dragging sleds full of gifts



One of the most iconic sets was presented in 2011 – a reproduction of the classic wooden duck made with bricks. The duck has wheels and includes a rope for dragging it.



The following year LEGO® did something risky. LEGO® reissued the 2009 LEGO® Inside Tour set – 'Ole Kirk's House' – as a gift for his employees. Obviously it is, together with the duck, an iconic set, and one many collectors have tried to get because of what it represents. Anyway, although the box is different compared to the LEGO® Inside Tour, there was some anger over the reissue in 2012 of this exclusive design.

The following year, 2013, saw the release of the set 'A LEGO® Christmas Tale'. It is a set consisting of four Christmas scenes which reproduce what happens during Christmas night. It is curious that in this set the 'minifigures' are only heads with the bodies and legs made from coloured minifig head parts without decoration.



Taking advantage of the imminent launch of the LEGO® Ideas 21301 Birds set, in 2014 LEGO® gave away the set 'LEGO® HUB Birds', a collection of five native birds from the five global LEGO® hubs: Great Britain, China, Singapore, Denmark and the United States.



In 2015 LEGO® made a large investment in a wind energy park in an area of the sea north of Germany called Borkum Riffgrund 1. This set reproduces one of the wind turbines, as well as one of the boats/platforms used to assemble the wind turbines.



"In 2017 we celebrated both the company's 85th birthday and the 40th Anniversary of the launch of LEGO® Technic. We bring these two milestones together in this special model – and add a touch of the festive Nutcracker theme as well. Enjoy!"

Opening the box, I find the instruction book fastened by a cardboard tray that, again, shows the set at 1:1 scale. Opening the instruction book, there is a more exhaustive explanation of the anniversaries. Although I will not reproduce it entirely, I will transcribe a small part that I found interesting:

Finally in 2016 there was a set that thrilled train fans. Commemorating the 50th Anniversary of the LEGO® trains, the set reproduces six iconic LEGO® trains in microscale size: Motorized Train Set (1966), Wester Train (1976), Monorail Transport System (1987), Metroliner (1991), Emerald Night (2009) and Winter Holiday Train (2016).



"These two strands of LEGO® history come together in this year's Christmas model. It pays homage to those first LEGO® wooden toys and celebrates the 40th anniversary of LEGO® Technic – while adding a touch of traditional Christmas with its chosen theme."

4002017 - Nutcracker

Every year during the weeks leading up to Christmas, LEGO® offers its customers some promotional gift sets with a minimum purchase. In 2017 it was set 40254 Nutcracker, a traditional decorative element of Christmas in Germany. It is a set of 230 pieces with functionality limited to the opening of the mouth.

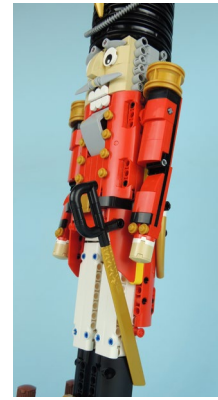
When the employee set for 2017 was unveiled it was not a great surprise to see that it was a large nutcracker. Anyway, when I received the set I was surprised at how big it was. It has an approximate height of 50cm. On the front of the box you can see the model at 1:1 scale.

The set commemorates the 85th Anniversary of the company, and the 40th Anniversary of LEGO® Technic, as explained on the back of the box.

After removing the cardboard tray I find the numbered bags to build the 732-piece model. The set is built in five stages.

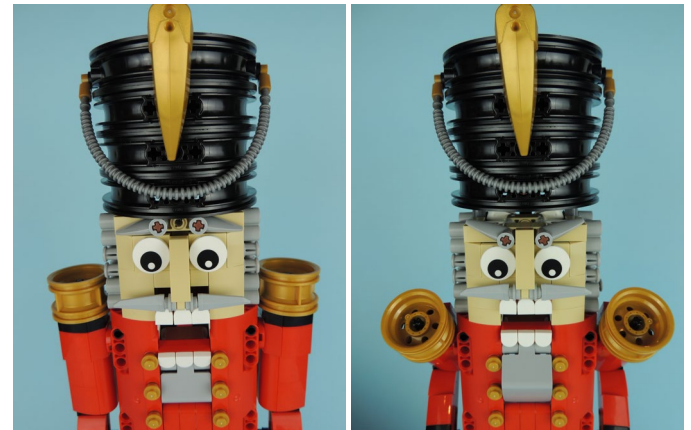
I will not describe the assembly of the set in detail, since it would be very tedious to explain the amount of liftarms, pins and other technical parts necessary to build the model. Instead, I will describe the main features that have struck me most.

The green base is made with technic panels. On the one hand, it is logical to pay homage to LEGO® Technic. On the other hand it is necessary because it will serve to support the entire Technic structure that will form the nutcracker. To embellish the base, some traditional pieces are used (plates, slopes curved, tiles, etc.). The only printed piece of the set is exclusive. It's a black 2x4 tile with a big '2017' in gold.



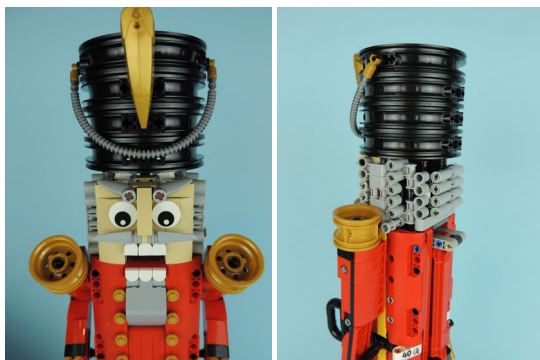
Looking at the structure, the boots, the legs and the jacket are built with panels and liftarms. There are some decorative curved slopes, and the belt buckle is a Pearl Gold Minifig Utensil Book Binding with Two Studs. Of course there are two liftarms with the logo of the 40th Anniversary of LEGO® Technic in the back, from which some gold finishing emerges on the back of the jacket.

The articulated part is interesting. The main functionality of the nutcracker is to open the mouth, place a nut inside, and then, when pressing the rear lever, break the shell of the nut. Obviously that functionality is included, but this LEGO® model does even more. When you put a 'nut' inside (a small construction simulating a nut that is put inside the mouth) and press the lever, the nut presses an internal mechanism that raises the eyebrows and bends the articulated arms.



The face is made with beige curved slopes. And the hair is very curious; it is made with technic connectors. The moustache is made with two Spike Flexible 3.5 and the eyebrows with two Bionicle 1x3 tooth with axle hole. The hat is built with four black 75mm motorcycle wheels.

In my opinion, the change in the expression of the face when the eyebrows are raised is very funny. It's a small function with a great result.



Conclusión

When you look at the Christmas sets for employees, most of them have a connection to iconic elements or special events of the company. In this case, the nutcracker is a great tribute to the origins of the company and to LEGO® Technic.

The articulated arms are the most 'Creator-style' part of the set, although they are articulated. It is a construction made with plates and curved slopes, and some Hinge plate with Pin hole are used for the articulation. On the shoulders, golden wheels of 30.4mm are used as decoration.

When I saw it for the first time I didn't understand the choice of the nutcracker, but after knowing the background of the set, I think it's the most appropriate. The construction is very interesting and eye-catching, due to the combination of LEGO® Technic and traditional LEGO®, and its size and functionality.

Finally there is a sword fixed to the left side of the belt. The use of Black Brick, Round 1x1 90 Degree Elbow makes the hilt of the sword perfect – very beautiful and striking. The blade of the sword is golden, like the rest of the decoration on the model.

It is a pity that these sets can not reach the general public, as they are really worthwhile. In any case, they can still be an inspiration for many AFOLs and it is appreciated that LEGO® puts effort into such a limited edition set.

We thank LEGO® for providing us with the set for review. However, LEGO® does not endorse or support the opinions we publish about their sets.

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News first half 2018

Text by *lluigib*

Images by *lluigib* & LEGO® System A/S

A new year means a large number of new sets in the catalogue. It is hard to follow all the novelties – honestly, there are too many. Sometimes I think that more stability in the catalogue would be good for our mental health, and the health of our wallets... But I am not complaining either, since many of the new models are fantastic. Let's have a look at some of the most significant novelties for the first half of 2018.

60188 - Mining Experts Site



2018 brings a second wave of sets from the Mining theme in the CITY world. The truth is I rather liked the first wave and I was afraid the sets for this year would just be 'remakes' of those from 2012. Fortunately, I couldn't be more wrong!

Set 60188 is the largest in the subtheme and reproduces a gold mine with its vehicles.

The set contains 6 minifigures, 4 male and 2 female. The decoration on the torsos is, as always, excellent. This year the hardhats the miners use are a different colour, silver instead of white, although the mould is the same.



This set also contains a black bear. A rare element indeed. Previously a brown version had appeared in two sets from 2012. The set also contains a white spider.



The model consists of the mine, with two wagons to transport the ore, and three vehicles: a transport truck, a small front loader and an enormous grinder to extract the precious ore from the mine.

The goldmine is rather small and only occupies a single 16x16 plate. There are two walls and on top of one of them is the mountain the ore is extracted from. This face of the mountain contains gold ore that can be 'extracted' with the grinder. The other wall is the entrance to the mine through which the wagons enter to transport the ore. There are also two removable walls. When you press the dynamite levers, those walls explode away.



The track is built using the same elements used in the roller coaster from the Joker Manor, but this time in light bluish gray. There are two straight tracks and a curved one. The straight tracks are longer than the ones that come with the Joker Manor. The curved one and the wagons are the same, but the colour of the wagons is black. The wagons move very smoothly and with just a little push they roll to the opposite side of the track.

The smallest vehicle is a front loader. There isn't much to say about it – what you see is what you get. The only difference with previous front loaders is that instead of using a small base with lever, this time the controls are two Black Tile, Round 1 x 1 with Bar and Pin Holder.

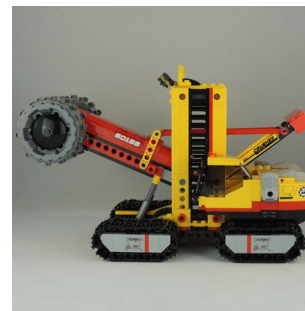


There is also a transport truck. The truck is small, but allows you to transport the ore that the front loader gets from the wagons that come out of the mine. Despite its size, the truck is six studs wide, so it looks like it can handle heavy loads.



The star of the set is the grinder: an enormous and heavy vehicle that will grind the ore out of the walls of the mine.

The grinder moves on four large tracks, allowing it to advance over any kind of terrain. In the centre there is a large column that gives the model structural rigidity and holds the grinding arm. On the left side there is a cabin for the operator. The grinding wheel is very big. You can make it turn from the right side of the column, on the opposite side from the cabin. The arm can be lowered and raised with the counterweight you can see over the motor. The vehicle is 14 studs wide and 20 studs tall.



The set is very complete and quite playable in some respects. The wagons and the small vehicles allow you to work in the mine. The grinder is a bit too big for my taste. Although it is an interesting vehicle, its presence makes the rest of the set look smaller. I would have preferred a larger and more complete mine with a smaller grinder. Still, it is a completely new addition to the world of CITY.

70923 - Batlanzadera espacial



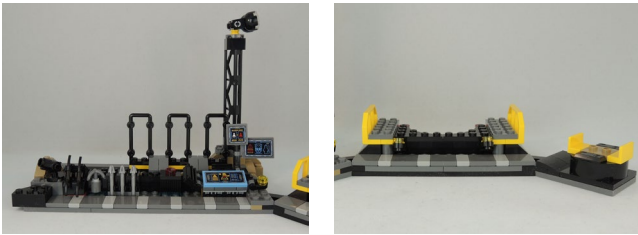
The LEGO® Batman™ Movie gets some more sets this year, with the appearance of a number of sets that were not included last year. Among those, probably the most acclaimed is the Bat-Space Shuttle.

The model appears in the movie, even though it doesn't get much attention, and given how beautiful it is, LEGO® couldn't go without making it into a set.

The set contains six minifigures: Batman™, Dick Grayson™, Catwoman™, Reggae Man Batsuit, Space Batsuit and Firestarter Batsuit. These latter three are interesting for collectors as these suits can be added to the ones that came with the Batcave, in the Joker Manor and with the Collectible Minifigure series. The Reggae Man Batsuit hat-mask is a new mould.



The set is an extension to the Batcave and can be connected to it. On the left there is a weapons arsenal, a control panel, a spotlight to illuminate the Bat-Space Shuttle and a transport belt for the suits. In the centre there is a small launchpad for the Bat-Space Shuttle, but there is no way to connect the shuttle to the pad. On the left there is a platform for the first of the vehicles: a kayak.



The Bat-Kayak is based on a Kayak element that appeared last year, and in this case it is black. There is a small reactor on the back to give strong propulsion and of course it sports bat wings to clearly identify it as a Bat-Vehicle.



The second vehicle is a Bat-Moon Buggy, a miniscule vehicle to move about on the moon... The buggy has a foldable antenna, a radar and a headlight. In addition, it can be placed inside the Bat-Space Shuttle.



Finally there is the Bat-Space Shuttle, the iconic main element in this set. Similar to the CITY Space Shuttle, it has three rockets to push it into orbit, a large central one and two smaller ones on the sides.

The Bat-Space Shuttle is really beautiful. It comes in an elegant black with yellow windows. I was afraid it might be a copy of the CITY version in a different colour, but that is not the case. Although they are similar (in the end they are both space shuttles) the Bat-Space Shuttle has its own style.

It comes armed to the teeth. There are five weapons on each wing and two of these shoot. Instead of a single rudder there are two Bat-Rudders placed at an angle of 30°. The Shuttle has a single reactor at the back, which is built with a Technic gear and a half barrel. The shuttle does not have landing gear.



I believe the set is worth it because of the iconic shuttle and the minifigs it contains. I also think it is interesting that it can be connected to the Batcave to complete the model. The Bat-Kayak is a curious and interesting accessory. I miss being able to connect the launch pad to the Batcave and also landing gear for the shuttle, to give it more playability. Anyway, neither of these elements are indispensable nor do they detract interest from the set.

75889 - Ferrari Ultimate Garage



I hope this won't be the ultimate Ferrari garage LEGO® makes. This is a dangerous set... for me. A classic Formula 1 set touches me deeply.

The set includes 7 minifigures: 3 drivers with outfits from different eras, 2 team members and 2 visitors. I like how they have reproduced the different overalls in accordance with the era of each car.



The set is very complete. Not only does it include the workshop part, but also a museum, with a grand prix cup, scale models and posters. In the central part there is ramp to lift one of the

cars. It can be adjusted in height and on both sides there are drawers with tools that also serve as workstations. On the left wall you find the museum area and on the right wall more tools, a support for the second rear spoiler of the Formula 1 Ferrari 312 T4, and vintage-style fuel pump.



The side walls can open so you can see the garage in all its splendour.

There is an arch that serves as the finish line. This is made with two curved roller coaster track parts. On the floor there are elements which serve as a base and to which you can attach parts of a 'wall' that traces part of the racing track.



Let's have a look at the three cars. We will start with the 488 GTE: a beautiful GT car from 2016. Despite the fact that LEGO® elements limit the decorative lines of the original model, I believe the designers have done a great job overcoming this. The aesthetics and the aerodynamics are well represented, as in all the Speed Champions vehicles. There are many stickers, as expected, but without them the model looks a bit odd. The only thing I miss in this kind of model is having headlights that are not stickers...



The 250 GTO is a 1962 model that Ferrari developed for Group 3 in the FIA GT category. There were only 39 of these ever made and it has been named the best sports car in history by several international magazines. I understand this to be the reason why LEGO® has decided to reproduce this model. The reproduction corresponds to a competition model with number 22. I believe the designers have managed to perfectly recreate the design of the car. The use of curved slopes is essential to capture the characteristic curves of this model. Maybe the more important challenge in the design of the car was how to fit the rear. As it is at an angle, it is not easy to attach it well to the model. The designers have done a splendid job and the small gaps you can see in the front part are understandable.



The last of the three cars was a big surprise for me. The Formula 1 Ferrari 312 T4 is beautiful. This car won six races in 1979, and was driven by Gilles Villeneuve and Jody Scheckter. The LEGO® version is very good. It captures the essence of those 70s Formula 1 cars: dangerous and with aerodynamics consisting of just a few spoilers. The size of the front wheels is smaller than that of the rear wheels. The cockpit is open and quite low, so you can see a large part of the driver. The profile is quite simple and the only thing that stands out is a small spoiler behind the cockpit that carries the number 12. This piece is a triangular 2x2 tile which is a new element this year. Cars didn't have a lot of sponsors back then so there are only a few stickers.



This set is a must-have for racing fans. The garage is well equipped, with old elements and a museum. The cars are iconic and well reproduced. The design work on the GTO and the 312 T4 is excellent and they are a breath of fresh air compared to most of the supercars LEGO® has brought out so far. I hope to see more of these classic cars, particularly from Formula 1 in the next few years.

We would like to thank LEGO® for providing these sets for review. However, LEGO® neither approves nor endorses the opinions we publish about their sets.

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Review: Building Smart LEGO® MINDSTORMS EV3 Robots

By Jetro



About the Author

Kyle Markland got the attention of the EV3 community when he started uploading videos to his YouTube channel ([builderdude35](https://www.youtube.com/channel/UCbUd35)) and announcing them both on his website (builderdude35.com) and in the MINDSTORMS community on Facebook a little over three years ago. His weekly videos have covered everything from basic FLL and WRO concepts to more detailed tutorials on programming and building aspects of both the NXT and the EV3 MINDSTORMS platforms. In August 2017, Kyle was among the last wave of 'power users' added to the select MINDSTORMS Community Partners program. On April 4 his book 'Building Smart LEGO® MINDSTORMS EV3 Robots' was published by Packt (<https://www.packtpub.com/hardware-and-creative/building-smart-LEGO-mindstorms-ev3-robots>).

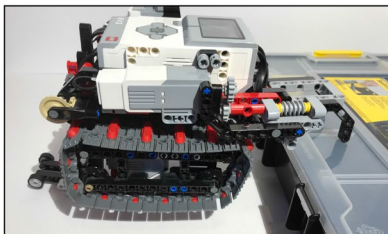
About the Book

Building Smart LEGO® MINDSTORMS EV3 Robots explores five robot models that were created by Kyle to teach building and programming skills ranging from basic to advanced, and takes the reader on a journey of discovery using the MINDSTORMS EV3 with six projects.

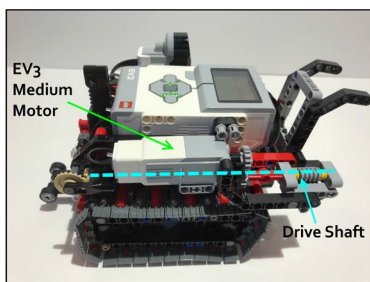
However, not all the models Kyle uses in his book use only the parts present in the Retail kit (31313) or in the Education kit (45544) so you'll need to get some extra elements to follow them all. One of the models uses the track elements from the Edu set, while another uses the rubber tracks from the Retail set. If you have either one of them and a few Technic sets you may already have everything you need to follow the building instructions. If not, now is a good time to add some parts to your collection or get creative. The use of sensors is a little bit more problematic, as one of the models uses both the Ultrasound sensor from the Edu set and the IR sensor and remote from the Retail set, while another uses two infrared sensors.

Each chapter starts out by investigating a number of mechanical solutions in the model it explores. Building instructions are not included in the book, but can be downloaded from Kyle's website, together with sample code for all of the projects. Although the book mentions LDD files for each of the models, Kyle has since worked on making PDF instructions available that were created with LDraw tools to make them as similar as possible to the instructions used for official LEGO® models. This is a significant improvement over the LDD files as those don't always provide a logical or coherent building sequence. There is also a video for each of the six projects to give you an idea of what your robot will be capable of doing once you finish programming it.

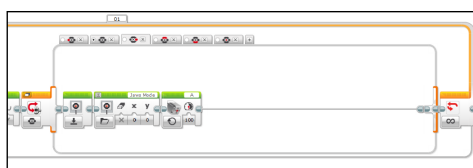
The mechanical concepts discussed in the book range from a standard tank drive design to rack and pinion steering in the Falcon car concept. Another skill Kyle discusses in the book is making a walking robot. However, the important part of the book is not the mechanical designs or the instructions, as those are freely available on Kyle's website anyway. The added value in the book lies in the explanation for the choices made while designing the robots and why some mechanical designs are more practical in certain robots.



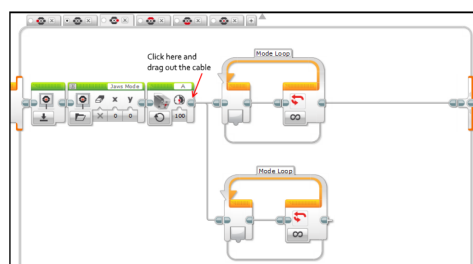
The entire climbing mechanism is powered by one EV3 medium motor, plugged into port A. The motor routes its power through a long drive shaft that runs along the length of the robot:



Navigate over to the switch tab that has the right brick button highlighted. As usual, add the display reset and display print blocks at the beginning. Then, add a medium motor block (port A, On, 100 percent power). This motor block keeps the jaws and tail moving continuously while the operating mode is active:



Now, it is time for something new: drag out two loops and place one under the other. Name both loops Mode Loop. Split the programming's flow so that it branches off to both loops. Drag the program's flow cable to create a new branch by clicking on the small tab on the right edge of the last block in the original branch, and drag the cable over to the first block in the new branch:



Each chapter then turns to programming the robot. The book starts off with simple concepts like loops and cases (switches), but soon moves on to proportional steering, creating menu graphics, creating an interactive robot and using MyBlocks to recycle code and keep everything organised. The coding steps are well explained and there are plenty of colour pictures to illustrate each step. While the programming concepts have been designed to go from simple to more complex, it is perfectly possible to just jump in to any of the models if you'd rather not follow the sequence of the book. If that means you don't fully understand a concept (even though the steps are fully explained) you can also go back to a previous model later on to fill in the blanks.

The final chapter reads like a bonus and has some special requirements: it uses two 3rd party sensors (the dGPS from Dexter Industries and the HTCompass from HiTechnic). While this means you cannot complete all the missions with just the MINDSTORMS EV3 elements, the chapter does give you a good idea of where to go next with your MINDSTORMS hobby. The chapter also shows you how to export a MyBlock from one project and import it into another, or how to create a MyBlock with parameters (inputs), and Kyle does a great job explaining the principles behind GPS navigation in an easy to understand and accessible way.

Building Smart LEGO® MINDSTORMS EV3 Robots is the perfect book for the EV3 MINDSTORMS fan who has a bunch of parts but needs inspiration for building and some pointers on how to think about and put together programs. The projects are fun and teach many programming skills you will need for your EV3 robots.

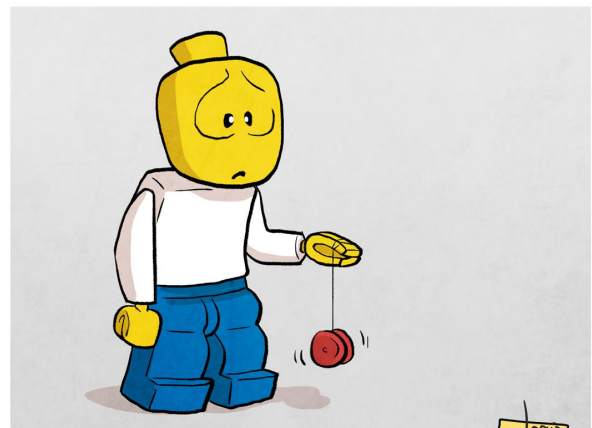
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Benny's Corner

By Luigi Priori



Desmontados by Arqu medes



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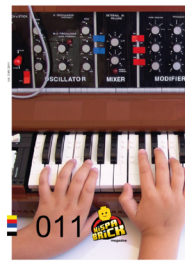
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