

027



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027



Portada por Castor Troy

In this issue of HispaBrick Magazine®

- 5 Editorial
- 6 Great creators of the world: CASTOR TROY (Lionel MARTIN)
- 11 LEGO® House. Home of the brick
- 17 Virtual LEGO®. The key to amazing renderings
- 21 Celebrating 40 Years of LEGO® Technic
- 23 Basic Supercar Designing
- 26 Technic movements on a miniature scale
- 28 Tutorial: How to repair damaged LEGO® boxes
- 34 Walking Robot
- 37 Interview: Kim E. Thomsen
- 41 Interview: LEGO® Bionicle Design Team
- 46 Entrevista: LEGO® House
- 48 Worldwide Collectors of Exclusive Minifigures
- 52 Instructions: Freight Car
- 62 RLUGs of the World: Asociación PIEZAS, Brickcanarias, HispaLUG®
- 65 HispaBrick Magazine® Event 2016
- 72 Mysterious robbery on the Assembly Square
- 81 Review: 75144 - Snowspeeder
- 85 Review: 70909 - Batcave™ Break-In
- 89 Review: 70908 - The Scuttler
- 92 Review: 21127 The Fortress
- 94 Pre-season Formula 1™ 2016
- 97 Mini/Micro Star Wars™
- 102 Desmontados by Arqu medes
- 103 How to collaborate with us
- 103 Our collaborators on the Internet



11



52



81



PARIS 1889

Castor Troy

6

Editorial

By A. Bellón (Legotron)



The latest issue of HispaBrick Magazine® is ready, and it contains all sorts of articles related to the world of construction with LEGO® elements. In these last few months the most commented news among AFOLs hasn't been exactly about LEGO®, although it was directly related. The different clone brands are making a lot of noise. Although this is not a subject we will talk about, it is something that worries us, since it affects us as builders and AFOLs.

Regarding LEGO®, during the last few months we have learned about some very interesting developments, like the Snowspeeder UCS (75144), the new Architecture sets, the LEGO® BrickHeadz, and the arrival of Batman: The LEGO® Movie. In addition we have seen all the sets that will come out in summer. Furthermore, there have been changes in LEGO® Ideas, including new restrictions to the models that can be presented. And we are still expecting to learn more about the opening of the LEGO® House.

For this issue we have prepared a number of interesting articles about creating renders of LEGO® models, the 40th anniversary of LEGO® Technic, and how to restore old set boxes. There are also articles about Spanish RLUGs and the LEGO® House. We have interviews with Kim Ellekjær Thomsen, Community Manager of Operations & Community Engagement, LCE and Castor Troy. And of course there are the usual articles with set reviews, MOCs and the comic strip Desmontados.

We have also included an article about our last event, the HispaBrick Magazine Event 2016, which took place in December and where we met up to exhibit our constructions and plan the future of the magazine. During the event we presented our new logo. We changed it to comply with the rules as outlined by LEGO®. This involves avoiding elements that LEGO® has a copyright to or that show the brand logo. It has now been approved and is our new image.

We hope you like it. Happy Reading!

A. Bellón
On behalf of HispaBrick Magazine® Team
#



Great creators of the world: CASTOR TROY (Lionel MARTIN)

By HispaBrick Magazine®

Pictures by CASTOR TROY

HispaBrick Magazine: Name?

CASTOR TROY (Lionel MARTIN)

HBM: Age and nationality?

CT: 43 years old – French.

HBM: What do you do for a living?

CT: I'm in Quality/Marketing and I'm an IT manager.

HBM: When did you first start building with LEGO®?

CT: I have played with LEGO® since I was five.

HBM: When did you start posting your models online?

CT: First, I started posting on Brickshelf and the French forum 'Brick Pirate'. Then, when I thought it was the right moment, I began posting on Flickr, in 2012.

HBM: What is the most recent set you have purchased?

CT: The LEGO® Modular Brick Bank 10251.

HBM: What is your favorite commercial LEGO® building theme?

CT: Modular buildings and the Christmas village.



HBM: What is your favorite theme for building?

CT: I think the steampunk theme is the most complete theme for imagination, color, and diversity.

HBM: If you had to choose one favourite from among all your creations, which would you choose and why?

CT: Probably, the Vampire Castle because I can stay in front of this creation and still appreciate all the details. (I haven't be able to destroy this MOC.) In exhibition, a lot of people prefer the Big Rocks for the Hunters. (I haven't be able to destroy this MOC either.)

HBM: What is the largest creation you've done?

CT: It's not a secret that I love creations from Derfel Cadarn; I wanted to do something big with his technique (I asked him before and he sent me a very encouraging message). The castle with the pathway is 2.5x2 meters wide and the dungeon is 1.3 meters high – 55,000 parts. I've worked for about 2 years on this creation. I wanted there to be small details that you can discover wherever you look.





HBM: What is your favorite LEGO® element?

CT: Brick, Modified 1 x 1 with Headlight.

HBM: Which part would you like LEGO® to produce?

CT: I don't know all the parts currently produced by LEGO®. My friend Domino39 (collaborative MOCer on Paris 1889) always integrates old parts I've never seen before, so I think I've got a lot of work to do just to learn the existing catalogue.

HBM: How many hours do you spend building with LEGO®?

CT: I've a very demanding job during the week and I give priority to my family so I work intermittently only on the weekends and holidays. But when I start to build I spend 10-12 hours non stop.

HBM: What do your family/friends think about this hobby?

CT: Hum... next question, please!



HBM: Do you draw or pre-design before you start building?

CT: In regard to the castle I did a little pencil drawing, and for Paris we've made a plan with dimensions. But for the 'Hideout for the hunters' I've built directly with no specific idea.

HBM: What do you think about the use of nonofficial parts (stickers, modified parts, non LEGO® elements, etc.)?

CT: Sometimes, I have had to use personal stickers or custom printed bricks but I do this only in exceptional circumstances. On the other hand, I appreciate customisation of historical minifigs.

HBM: What inspires you to create your layouts and MOCs?

CT: My wife is bookseller and we haven't had a TV since 2004. I have the chance to read a lot of French comic books and this is very good inspiration.

I spend a lot of time observing MOCs on Flickr. I think I'm not an inventor/creator but rather a good 'compiler'.



HBM: What plans do you have for future builds?

CT: I'm very happy to work with my friend Domino39 on 'Paris 1889'. I think this project will be magic. Dominic is a genius and a great guy. I've joined LUG'est in 2016 with a very good atmosphere, no competition (I don't like contests or battles) and we'll be very proud to present 'Paris 1889' in October 2017 for the Dole exhibition in France.

You'll see Notre Dame, the Louvre, the Eiffel Tower, and the Sacré Coeur... only in 1889 and in a steampunk style.



I've already a new idea for a big project over the next two years... do you like Jules Verne? I dream about a 'Quadriptych' creation.

#



Le BAZAR de l'HOTEL de VILLE
PARIS 1889 - GASTOR TROY



PARIS 1889 GASTOR TROY FACTORY



Paris 1889
castor-troy



The Engineers
Paris 1889 - Gastor Troy



H USE

Home of the Brick™

By HispaBrick Magazine®

Images by Jan Beyer and LEGO® System A/S

On September 28, 2017 the LEGO® House will be officially opened. It will be a great event. A few months after doing the interview with the people in charge of the LEGO House, which is included in this issue, HispaBrick Magazine® has had the opportunity to be the first LEGO Fan Media to visit the construction site and to learn some as yet undisclosed details.

On 13th March, we had a nice chat with Gitte Nipper, LEGO House Head of Sales & Marketing, Jesper Vilstrup, General Manager of LEGO House and Søren Holm, LEGO House Head of Experiences. I think that before going into detail, I would like to highlight the enthusiasm that was conveyed to me in their explanations. You can see the passion that they put in every detail, big or small, in order to get an experience that is totally aligned with the expectations that the LEGO House has generated.



LEGO® House works

Home of the Brick

“Home of the Brick” is the motto they have chosen for the LEGO House. The nuance between House and Home is important, and after much internal discussions and consultations with outside groups (including the AFOLs), it was decided that “Home of the Brick” was the right one. The AFOLs were asked different questions, and here are some of their answers:

What associations come to mind when you hear the words “Home of the Brick”?

“The association is that the LEGO brick must have been invented here, at the” Home of the Brick “and that there must be more bricks here. I would hope to find lots of LEGO bricks in such a house which is the” Home of The Bricks. “ *Dirk (Germany)*

“I imagine that there will be one room that looks like a normal room in any home, just everything is made out of the Lego bricks.”
Rafal (Poland)

What experiences do you expect to take place in a house that calls itself “Home of the Brick”?

1. Lots of LEGO Bricks to find and play with
2. Being invited to play with LEGO bricks
3. Home = feeling home, feeling invited, being well treated
4. Find out about the history of the LEGO bricks (a library of LEGO sets, anecdotes about TLC and the family behind etc.)
5. Learn things about the brick that I have not known so far -may be things not well known to the public. “ *Dirk (Germany)*

“To be able to see and learn about the history of Lego (the product, the company, the family and the town);
To see a museum of past sets
To see what the future of Lego might hold;
To see how and where Lego is used around the world;
To have chances to interact with Lego -play, or science challenges / experiments
Some additional arts or cultural offerings over and above just Lego focused activities. “ *Chris (USA)*

What do you see in the tagline “Home of the Brick”? Do you like it?

“It seems fine to me. Other taglines that come to mind are:

“Where bricks come to life” and “True life of a Brick”

But I think the original one is better suited for the whole house, and those could be used as the names of exhibits / rooms.

PROS:

- Short
- Strong
- To the point

CONS:

- “brick” is usually strongly linked to AFOL communities as word lego can’t be used (Brickshelf, Bricklink, etc.). It is not really important with. “ *Rafal (Poland)*

“I do not hate it, but it does not do anything for me. It feels very generic and boring.

I’ve listed in # 1 about the secondary market’s association with the word brick. It does not feel official. “ *Peter (USA)*

“I tried, but really could not come up with any cons for this. Pro: The statement is clear, which reinforces there is a place where the Lego brick’s journey begins, where imagination and creativity join the brick.” *Ralph (USA)*

A diagram of the positive and negative aspects of this study was made:



“Home” has many connotations, and here are some of which have taken into account:

- “Home is where the heart is”
- “Home is where my habits have a habitat”
- “Home is not a place, but rather, the people you love”
- “Home is where somebody notices when you are no longer there”

Therefore, “Home of the Brick” has exactly the meaning that is sought, with all the positive and negative aspects that it entails. All the interior and exterior design of the LEGO® House has as background that “Home” that has been thought so hard.

Visual Identity

One aspect that has also been taken into account is the visual identity of the building. I’m not just talking about the building being built like 21 interconnected bricks. Absolutely everything is inside the LEGO system. From the tiles that cover the building to the colour palette used in the interior.

In the talk I had with Gitte Nipper I discovered the extent to which the “obsession” that absolutely everything is related to the LEGO System is present. All the signage has proportions of different LEGO bricks, and the colors are based on the pantone used in the bricks. The basic colors (Blue, Red, Yellow and Green) are used, along with black and white. There are some key differences (darker and lighter) to allow you to distinguish some elements within the main colors. In addition they have chosen some secondary colors that serve as contrast for the main colors.



Evolution of the construction site, including the external tiles

But where AFOLs have had a major impact (again) is in choosing the signals that will help with mobility within the building. Fans were asked for ideas of logos for different concepts. The fans proposed many icons that have appeared throughout the history of the LEGO brick. From current logos to the oldest ones, which are unknown to many of today’s LEGO employees. They recognize that without the help of the fans, they would not have been able to use many of the signs that you will find in the LEGO House.

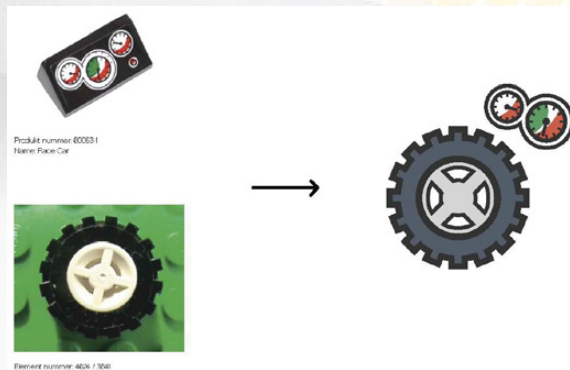
AREA	ICON DIRECTION	INSPIRATION
Dynamic City	SimCity Town planning	
Robotic Lab	Robots Programming	
Test Zone	Model assembling Crash seat dummy Experiment	
Endless Bricks	Endless bricks Waterfall Free build	
Masterbuilder Studio	Thinking Learning Experimenting	
Diorama	World of LEGO® Creations Home of the Minifigur	
Story Studio	Movie clipboard Stop motion film	
Character Creator	Iconic Minifigur female Iconic Minifigur male Unique Minifigs	
Fish Tank	Aquarium fish Marine fish	
History Collection	Timeline Brick history LEGO milestones	
Keystone	Gallery Showcase	

Icons requested to AFOLs were based on this list of areas

Fish Designer	1. Aquarium 2. Marine fish	
History Collection	1. Timeline 2. Brick history 3. LEGO Milestones	
Masterbuilder Gallery	1. Gallery 2. Showcase	
LEGO House	1. Shopping Basket 2. Shopping Bag 3. Sign	
Painting House Blue	1. Substrate 2. Boat	
Painting House Green	1. Motorcycle 2. Bike 3. Vehicle	
Painting House Yellow	1. Air Flower 2. Air Balloon	
Painting House Red	1. Space ship / Rocket	

Icons proposed by AFOLs

Once the designs were chosen, an intensive work of renovation, fusion and adaptation was done. There were two main reasons: homogeneity (thickness of lines, colors, etc ...) and adaptation to the size of the signs (many logos come from bricks and / or minifigures that do not have the same proportions as the signs).



Example of logo adaptation



Approved icons



Definitive Icon Fish



Definitive Icon City Architect

Not only the AFOLs' opinion was used in this section. For example, some time ago LEGO requested ideas for the name of the restaurants in the building. One of them will be called "Brickaccino", a name proposed by the Community. Other names proposed by the Community were considered for the other two restaurants, but eventually they will have names of a more commercial character and that allow for a clear differentiation.

The LEGO® House

After this interesting introduction to visual identity, I had the opportunity to take a guided tour with Mr. Jesper Vilstrup, General Manager of the LEGO® House. I was able to walk both inside and outside the building. To this end I had to use individual safety elements such as special footwear, a reflective vest and a helmet.

We entered what will be the main square, from where you can observe the building “from the inside”. This will be a public square where you can purchase tickets and access the venue, but also walk, shop in the store or eat in the restaurant without purchasing an entrance ticket. Obviously, everything has the proportions of the brick (on a higher scale). I have commented that the exterior of the building simulates a building made up of 2x4 bricks, but for example, the main square floor seems to be built with 2x2 tiles, and it is like that with all other elements.



LEGO® Square (Simulation)

Speaking about restaurants, Jesper explained me something that shows how everything, in one way or another, is related to the LEGO brick. When someone enters the family restaurant, they will receive a bag with pieces. Each piece means a type of food, for instance a red brick could mean meat, a green brick means salad, a yellow brick pasta ... You have to “build your own food” with bricks, scan it, and after watching a video in which a Minifigures cook your order, you can pick it up and eat. Fun!!!

The opening of the LEGO House was delayed one year since the building could not be built with “traditional” techniques without adding columns. As adding columns into the building would ruin the architectural idea with the open space, the engineers had to think again. The solution was to add 1900 ton of steel into the building and change the construction technique to turn the building into a bridge, rather than a traditional building.



LEGO® Square

When you enter the showrooms, it is impressive to see such a large space without any columns. There are four areas with different experiences:

Red Zone: Creativity

Green Zone: Social skills

Yellow Zone: Emotions

Blue Zone: Cognitive competences

In addition, there will be the Masterpiece Gallery, which is the top piece of the building (the one with the studs). Here you will be able to see models made by AFOLs from all over the world, as well as three big models in which AFOLs have also participated ...



Red Zone (Simulation)

But there is also an “invisible” part of the building where some things will happen. It is the basement which will house the historical collection, with boxes and assembled models that will present a tour through the history of LEGO. In addition, there will be a central room simulating the interior of a brick. The three tubes will be interactive elements to explore the history of LEGO.

There will also be multipurpose rooms, where you can hold conferences, workshops or meetings of any kind, both by the company and by the fans.



Jesper Vilstrup and Lluís Gibert at the top of the LEGO® House

You will also be able to walk on the exterior of the building and will be allowed to reach the top of the upper brick. From there, you can step over to the studs and see the Masterpiece Gallery from above, or observe the landscape. For example, you can see the parking lot that has been built for visitors, which is built with the same bricks that had been part of the Astvej factory which was closed last year to build a new office building. It is an ecological and historical parking lot.

By the end of the visit I was very excited, and ready to start the last meeting with Søren Holm. He explained how some of the experiences of the different areas will be and how they have designed specific elements of decoration. Unfortunately I can not reveal the details since they are part of the opening surprise. I can only tell you that the waiting time will be worth it.

HispaBrick Magazine would like to thank Astrid Mueller, Jan Beyer and Kim E. Thomsen for their efforts to carry out the visit, and Jesper Vilstrup, Gitte Nipper and Søren Holm for their kindness and enthusiasm during the visit.

#

Virtual LEGO®

The key to amazing renderings

By Mattia Zamboni, brickpassion.com

I. Introduction

Let's be clear: nothing really beats playing with real bricks, no doubt about that. However there is something somewhat close to it which can be appealing as well.

About 10 years when I was still in my own dark age not thinking about LEGO, I happened to randomly stumble onto a software called MLCAD, the well-known program which allows users to virtually build with bricks on the PC. It didn't take me long to fall in love not only with the software but with LEGO again. Using this software was pretty convenient for me, since at that time I didn't have any of the bricks from my childhood anymore. What a dream to be able to build anything using any kind of bricks... in any color!

But it didn't last very long and soon I started to feel the need for something more realistic: that's when my long journey in the Computer Graphics (CG) world started.

After long tests and investigations I determined the best strategy for transferring models from virtual LEGO CAD software to a 3D CG software specialized in photorealistic rendering.

I then started to have so much fun that I was dedicating every single minute of my spare time to it. This passion got so serious that I started creating books about cool LEGO models. Today the most rewarding feeling is whenever a reviewer comments on the photography in my books without having realized that it's not photography at all, but all computer generated instead.

Over the years I have had several requests from people asking how I generate my renderings and whether I could share some of my secrets.

Well, the truth is that achieving a level of photorealism able to fool people is not as trivial as you might think, there's no two ways about it. In other words there is unfortunately no magic trick here: highly accurate photorealistic rendering is time consuming.

However, in this article I will do my best to explain the basic golden rules behind great CG renderings and I will describe the techniques I developed over the course of the years to generate the images for my books. In addition, I will mention a few of the newest tools which allow the achievement of decent results in an impressively short time.

II. The Golden Rules

So, what does it really take to generate highly photorealistic LEGO model images? Generally speaking I would say that great attention needs to be paid to details, because it is the details that eventually makes the final render look real. But let's start with the 3 most fundamental key points you need to consider in the process of generating great renderings:

- The 3D model's accuracy
- The model's materials
- Scene illumination

Each of these is equally important. Just like with a group of climbers roped together, if one falls there is a chance that they all fall. Let's elaborate more on the above points.

A. *The 3D model's accuracy*

The world we live in is analog, and so are we. What we see is all analog at the source since our eyes are analog sensors. Computers, however, are digital. Information is represented with discrete quantized data using digital bits. This of course applies also to the 3D CAD environments. This entails for example that a circle in CAD software is not a perfect a circle, but a polygon with enough sides to make it look circular. The more sides/edges your object has the more "analog" it will look. So, if you want to generate a photorealistic render you have no choice other than to have an accurate 3D model, which means having it composed of a very high number of polygons. There is indeed no way to create a good picture if your model is not accurate and does not contain enough details. The following image illustrates just this concept.



Fig. 1. A low polygon pig on the left, a highly detailed one on the right. Which one is the most accurate?

In the world of bricks there are a range of sources available for virtual parts, but the tough reality is that the parts models in these libraries are not entirely accurate. This of course was done by design, in order to allow the handling of bigger assemblies, but it simply doesn't help in the rendering process.

B. *The model's materials*

The way we see the world around us with our eyes is the complex result of laws of physics affecting the light's path before and after it hits objects. There are several fundamental concepts like reflection, refraction, and diffraction just to mention a few. Every material behaves differently which results in an effect which our mind associates with **real**.

So, the second thing you really need are materials (in the CG world also called shaders) to assign to your model which generates realistic effects. If this is not done properly, your model will simply look dull and unrealistic.

Take a close look at the following figure:



Fig. 2. In the above scenes the models are identical, but one has more realistic materials applied. I'm sure you can tell which one.

Again, it's the reflections, refractions and all the real life physics phenomena which brings life to the models in your scene.

C. The scene illumination

What is the key factor to good photography? One word: **lighting**.

Just like in photography, lighting plays a fundamental role here, because depending on how your scene or subject is illuminated it can look appealing or, on the contrary, it can look flat.

Just consider for example how a picture of a landscape can change depending on the time of day the picture is taken. Generally speaking, you want to create lighting such that it emphasizes the edges and eventually provides more volumetric information.

The next figure should help to clarify this:



Fig. 3. Which illumination provides the most interesting effect on Tomb Raider's Lara Croft?

Since we are trying to create photorealistic renderings, it is important to invest time in playing with lighting, as this factor contributes no less than the two previous ones to realism. The subject, the materials and the illumination: we want everything to look as real as possible.

With that being said let's take a look at what tools and solutions are available out there to render LEGO models.

III. The Available rendering solutions

There are several options available nowadays to generate realistic renderings. Here is a list of the most common:

- 1) **POV-Ray**: this has been the most popular and documented free rendering solution in the past. It isn't necessarily trivial to exploit its features and its render engine is not very fast.
- 2) **Bluerender**: currently this is one of the simplest choices out there. This free software can take your LDD files (LEGO Digital Designer) and generate renders in a less than 15 minutes. It unfortunately doesn't produce shine on the transparent parts.
- 3) **Mecabricks**: This is natively an online LEGO editor. Its ecosystem includes among its many features the possibility to generate decent renders.
- 4) **Custom process**: this solution essentially involves transferring your model from either LDD or an LDraw based editor to a powerful rendering software. There are free options like **Blender**, and many commercial (and sometimes expensive) products like **3D Studio Max**, **Cinema 4D**, and **Maya** just to mention a few. More recently, very simple software solutions dedicated to rendering have been introduced, with **Keyshot** being one of the most popular.

In my case I decided years ago to go for the last listed option. It is by far the one with the steepest learning curve, but if you like CG graphics, the invested time is well worth it. Last but not least, this option comes with an extra bonus: once you are able to create a nice render, you can start to animate it!

IV. My solution

The main reason for my choice is that it is really the only one offering no limits in what you can create, and the final rendering quality provided is limited only by your skills. My personal favorite is 3DS Max and I am using it in combination with a great converter by Okino Computer Graphics to import models.

In order to generate hyper realistic renders, however, there are a few obstacles to overcome so as to comply with the above mentioned golden rules.

The most relevant is that the imported model is not very accurate (low polygons). As mentioned above, LEGO CAD editors use rather low-detail parts. Although there are high quality parts libraries available (such as LGEO for POV-Ray), for my tool chain I couldn't use it. In addition I wanted to add even more details and I therefore started to create my very own library by remodeling the bricks from scratch.

The next figure shows an example of a part:



Fig. 4. Comparison between a part as imported (left) and the remodeled version (right) from my library. The level of detail I packed in includes tire text, part number and LEGO logo.

For some parts I decided to go crazy by adding even further details, which helped me in close-up shots to bring realism to the next level.

The next challenge was to replace the low accuracy parts with the highly detailed ones. This can of course be done manually, which by the way is what I did for all the models included in the “LEGO Build-it books: Amazing Vehicles”. But for large models this can take ages. It was when I was contributing to the cool buildings of the “The LEGO neighborhood book” that I started to write a script to perform the automatic parts replacement which picks parts from my library.

Once this step is done we are ready with a very accurate model, so it is now time to dress the model with the proper materials.

To achieve this goal you need shaders which simulate the materials used by LEGO. Luckily the amount of these is limited: it is of course for the vast majority the typical ABS plastic (in several different colors). Then the transparent plastic (again in several colors), the rubber for tires, and some special material to give silver/golden/chrome effect to the painted parts. I had to spend quite some time tweaking the materials' parameters in order to get realistic results, but this is a one time job and once finished you have your own LEGO materials library.

A trick I found was to use a visual setting in the materials parameters which shaves off a tiny bit of the edges of the

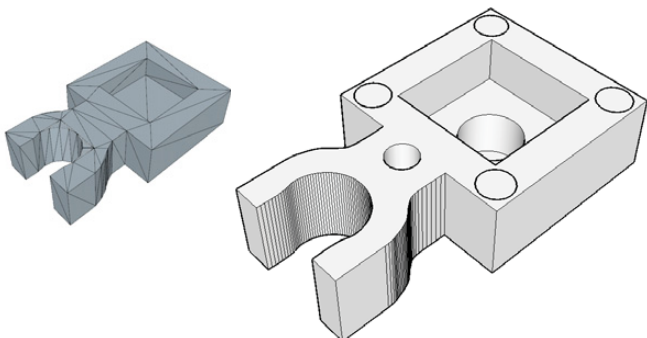


Fig. 5. Example: in the “Plate 1x1 with vertical clip” I decided to include the molding marks on the bottom side. A scrupulous eye can notice these details in close up shots.

bricks only at rendering time. This results in a very realistic look, compared to the native sharp edge defined in the 3D elements. It also allows me to keep the models simpler. On top of this let's not forget about stickers or painted parts. This is a whole separate job, in which you need to digitalize the artworks by scanning and importing them as bitmap textures into the software to be applied to parts.

For the parts replacement, I also wrote a script to perform an automatic material assignment based on the original color of the imported model. To help in this process I included a few smart features which for example recognize specific parts like tires by their part number and automatically assigns the black rubber material.

Once materials are properly assigned it is time to have fun by preparing the scene and lighting. This setup is no less important than preparing a stage for a photoshoot. This involves placing a background and a set of lights to illuminate your model. As fun as it is, this part can be one of the most time consuming. You want to make sure the lighting on the model is sufficient to create a pleasant shadow and provide good reflections which are not too strong.

To save time at this stage I again automated the process, which in this case uses a brute force method which rotates the lights all around the subject and generates several previews. This process can take a while but at least it can proceed unassisted, allowing me to just play the role of artistic director. I just have to look at all the previews and choose the one I like best, and if needed perform some fine-tuning on it.



Fig. 6. Example of rendering from my last book. Take a look at the soft pleasant shadows, generated in this case by a natural lighting (HDRI ambient image).

After the final rendering has been generated there is the post processing step in which I enhance the picture by working on brightness, contrast, and colors, and I apply some additional filters to make the image look the best possible. This step is really needed since it is not possible to have the rendered images look perfect right out of the rendering engine. During this phase it is suitable to use a color calibrated monitor.

At this point the model is highly detailed, it has realistic materials applied to it and a good lighting setup. Everything looks perfect, but... even too much! In fact this sometimes turns out to be a problem with renderings: they look too perfect which eventually makes them look fake. I therefore developed one of my favorite functions to add to my toolset, which I named RealWorld™.

RealWorld™ is an advanced piece of software which analyzes your 3D LEGO model and automatically introduces realistic imperfections in the way the model is assembled.

This is a list of just a few features of RealWorld™ :

- **Logo on studs:** all the bricks get rotated to make sure the logos are not oriented in the same direction (especially 1x1 round plates!)
- **Creation of seams:** all the bricks gets scaled by a random factor very close to 1 (example 0.996), which shrinks them ever so slightly generating the typical seams/gaps between bricks and it is performed so that they are not all identical.
- **Parts rotation:** Bricks which have a small play while assembled (for example 1x1 bricks/plates/tiles) gets rotated by a random tiny fraction of angle.
- **Parts tilt and lift:** all bricks which don't have other bricks placed on top of them (especially tiles) gets lifted and tilted around their x and y axis by a very tiny random amount. On surfaces (i.e. a sidewalk) this creates a nice non uniform assembly effect.
- and more ...

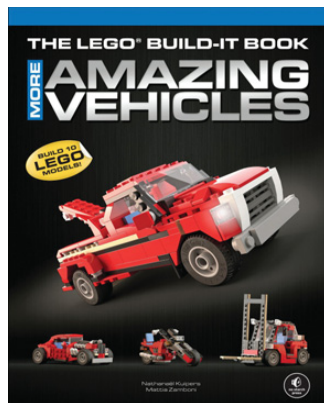
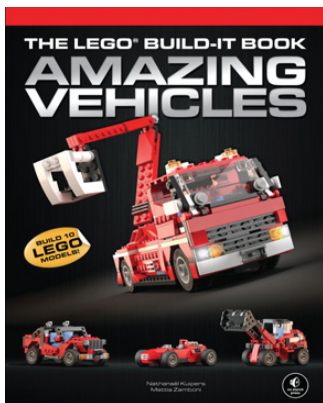
*“Details make perfection,
and perfection is not a detail.”*

- Leonardo Da Vinci

Once I developed these techniques to process models and generate renderings automatically, I decided to raise the bar further. My dream was indeed not to limit all this to a simple model, but to extend it to entire dioramas. This turned out to be a major task since I had to revise all the software written up to that point and optimize it thoroughly by paying special attention to speed and memory allocation. Importing and processing 500 bricks is indeed not the same as with 100,000 bricks.



Fig. 7. One of the most appreciated renderings in my latest book was rendered at 5125 x 3375 pixels and took about 16 hours to render.



The additional required step has been to get my hands on a very powerful workstation able to process all that data in reasonable time. I ended up building a custom station with the following specs (for the nerds among you ;-):

- 2x CPU E5-2640 Xeon CPU
- 8 cores/16 threads
- 64GB DDR4 RAM
- 512GB SSD storage
- NVIDIA GTX Titan X with 12GB VRAM



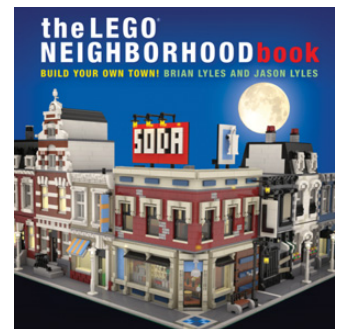
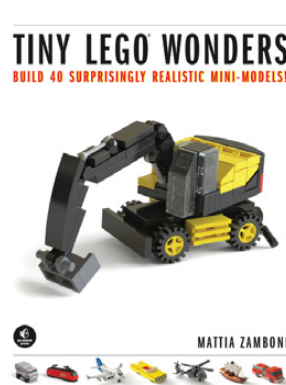
A due note is that generating highly realistic renders can require a lot of CPU power, mostly when generated at very high resolutions, with accurate shaders and with DoF effects. The next image shows an example of rendered diorama from my book “Tiny LEGO Wonders” designed by Alexander Bugiel. I must admit that at this point I am quite happy with my current results even if there is definitely still room for improvement. The content of this article is the result of more than 5 years of CG techniques and scripts development. However, the biggest challenge has been to explain and summarize all of this in a few pages, and I hope I was at least able to transmit some of my passion about this fantastic world!

Mattia Zamboni
www.brickpassion.com



You can see some of the fabulous renders made by Mattia Zamboni in the following Nostarch titles:

The LEGO Build-It Book I / The LEGO Build-It Book II / The LEGO Neighborhood Book / Tiny LEGO Wonders
#



Celebrating 40 Years of LEGO® Technic

By Andrej

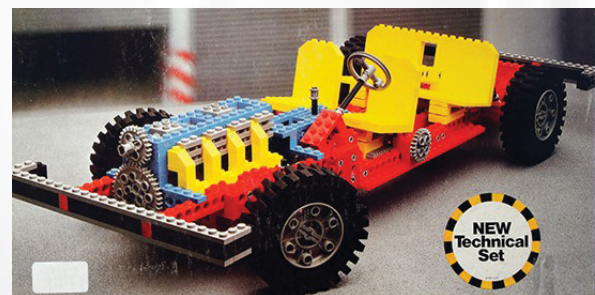
Images by LEGO® System A/S



This year marks the 40th anniversary of LEGO® Technic. In fact, it was 40 years ago, back in 1977, that LEGO tried something new. Initially they were simply called 'Technical Sets' and only marketed in Europe. The name 'Technic' was introduced a little later, in 1984. The first Technic models used a new kind of brick that included holes for axles to pass through. This also allowed pins to stick in to connect bricks together side by side, rather than the traditional stacking method. The set 853 'Auto Chassis' from that year already included piston parts with which you could build a working engine. The other three sets released in that year were a Forklift (850), a Farm Tractor (851) and a Sky Copter (852). That same year LEGO also introduced a 4.5V motor to be used with these early Technic sets. In the US these sets were available one or two years later with different set numbers. In the US, Technic was originally called 'Expert Builder'.



These first LEGO Technic models from the year 1977 didn't have as many parts as you can see in today's models. The 42055 Bucket Wheel Excavator set from 2016 is an extreme example with 3927 pieces, but many of the flagship sets from the last few years have had well over 2000 pieces each. The largest Technic set of 1977, the 853 Auto Chassis, had only 610 pieces. That is a pretty big difference. Even so, this set had many functions. For example, working steering (using the steering wheel in the driver's position) and a working engine with 2x2 square pistons. The engine also had some aesthetic features, such as cooling fins, and the model had a 2-speed working transmission.



LEGO Technic has evolved a lot over the last 40 years. They started out with bricks and plates, but you can hardly find any of those in modern sets which are now all studless beams and connectors. The first LEGO Technic sets didn't have many parts, because the models were simpler and didn't have as many functions or mechanisms as today's sets have.

You may wonder what LEGO Technic is doing to celebrate its 40th anniversary. For starters, LEGO has released ten new sets from the Technic team for the first half of 2017; a pretty big number, showing the theme is doing well. Moreover, each one of these sets includes a special commemorative brick with the 40th anniversary logo.

Let's talk about some of these new 2017 sets in more detail. My personal favorite pick is the 42063 BMW R 1200 GS Adventure motorcycle set. I simply love the design of this set and I like BMW motorcycles as well. Also, this set has really nice all-terrain tires that make it look like a real motorcycle. It also features working suspension and three boxes for storage. It is an iconic BMW all-terrain motorcycle. The model was released in collaboration with BMW, and the LEGO® Technic designer Lars Thygesen traveled to BMW Motorrad in Munich to find some inspiration for the set. Another Technic designer, Sam Tacchi designed the B model, which is the BMW future hover ride concept. It looks really interesting – a futuristic BMW hoverboard vehicle. Actually, it is a fictitious model, a flying motorcycle, and features a propeller that can be adjusted to push the bike up, as well as an engine in the front. These are some aviation principles included in the model that could work in real life.

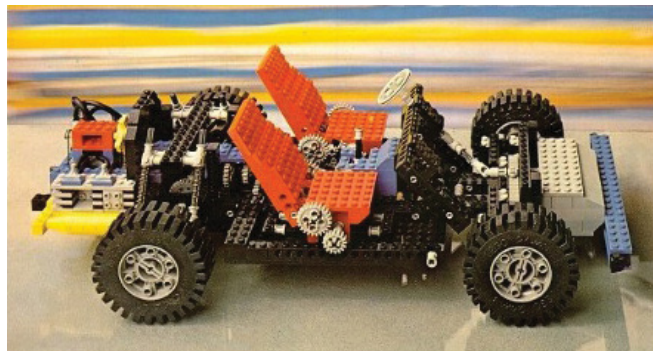


Another interesting 2017 Technic set I'd like to mention is the 42066 Air Race Jet. It is actually my second favorite LEGO Technic set of 2017. It contains 1,151 pieces, so it is a quite large set with many details like, for example, an opening cockpit and flight control surfaces. It actually has motorised landing gear that moves nicely and slowly. This effect looks really good in action. The trap opening and motor orientation are motorised as well. The model also features adjustable flaps in addition to the retractable undercarriage. The stickers on this model work really well and make the set look that much nicer. The alternative model for this set is a Private Jet.



LEGO has also presented a bonus LEGO Technic set that you can build from three specific 2017 sets. It's the new version of the iconic 8860 Supercar set. The 8860 Auto Chassis set was really special back in 1980. It was the next iteration of the 853 set from 1977 and included new functions not previously available in Technic, making it the second set in the Technic Supercar series. It represented the state-of-the-art in LEGO at that time. While it didn't look that good, as it didn't have a body, it still had great functions. The new version of 8860 is smaller than the original 8860 (the wheels in the Telehandler are a lot

smaller and the rest of the model is to scale), but it represents the old 8860 model pretty well. The colors are the same as the original set, and the functions are the same. The model has a working 4-cylinder engine, working steering, working differential and adjustable seats, just like the original 8860 set. This new supercar set can be built by combining the parts of the 42057 Ultralight Helicopter, the 42061 Telehandler and the 42063 BMW motorcycle. The instructions for this model is available for free download from LEGO.com.



The 42057 Ultralight Helicopter set contains 199 pieces and has a 2-cylinder engine, which is connected to the propeller and the rotor. Other features include orientable tail and two propellers, unlike on a typical helicopter. This helicopter set also includes a working gyroplane, which makes it a special set.

The third set that you need to build the special renewed 8860 supercar is the 42061 Telehandler. This small set contains 260 pieces. The features include 4-wheel steering, shovel orientation and arm lifting and extension. What is interesting is that the steering has a minimal turning radius. The alternative model for this set is a small truck.

There are also three new Technic sets that are planned to be released in August 2017. Some pictures of these sets have already been released. The August sets will include the 42068 Airport Rescue Vehicle, featuring 4-wheel steering and containing around 1,100 pieces. The second planned set for August is 42069 Extreme Adventure, which will have four tracks instead of wheels. The third set is the 42070 6x6 All Terrain Tow Truck, which will be remote-controlled. Also, we should see another set (it will probably be named as 42067) to be released in August 2017, but there aren't any details of this set yet. It should be the special 40th anniversary Technic set and I would be really glad for it to be another supercar. Maybe a Bugatti Chiron Technic set, which would look really good. I for one am curious to see what LEGO Technic has in store for us.



If you want to see all of the 2017 LEGO Technic sets, you can find them on my blog at brickseasy.com

#

Basic Supercar Designing

By Paul 'Crowkillers' Boratko

Images by Paul 'Crowkillers' Boratko



When it comes to Technic models, mostly everyone loves the awesome vehicles known as Supercars, but what exactly is a 'supercar'? Well, by definition, a supercar is an ultra high performance vehicle with a sleek unique look that also comes with a hefty price tag.

In the LEGO® Technic world, a supercar is defined more so by what it has going on internally. The first Technic car from LEGO with supercar-like functions came out in 1988. This was the 8865 Test Car, which implemented many features that are now expected from a LEGO supercar. These functions consisted of a functional gearbox, front & rear suspension, and working steering. Then in 1994 we got the first true supercar. While it didn't have any type of head-turning body design, it had some very revolutionary features over the 1988 Test Car, like all wheel drive, 4-wheel steering, and a slick 4-speed gearbox.

So if you are up to the challenge and want to build your very own supercar, let's look at where to start.

1. The scale of your model

The wheels that you decide to use will determine the scale of your creation. If you are using the wheel and tire combo from the 42000 Grand Prix Racer or 42056 Porsche sets, you are looking at 1:8, while the wheels and tires from the 42039 24 Hour Race Car or 8070 Supercar are in the 1:10 range. Some builders have even squeezed multiple supercar functions into much smaller scale cars, so the scale choice is entirely up to you!

2. The aesthetics of your model

So what do you want your Supercar to look like? The internet is a great place for inspiration, so get out a pencil and a piece of paper and sketch out some designs. Maybe you like features from one certain car like the spoiler design, and the air intakes from another. Sometimes it is best to get your design figured out first so when you get into the chassis and drive-train, you don't end up having to rebuild them when you realize that you are now letting your bulky chassis determine how your body design is developing. Of course color is also something that you must consider when trying to come up with a design, because as we all know, we are limited with parts in certain colors.

3. Have a wide array of Technic elements

One thing that can throw a monkey wrench into your project is not having the right part for the job. You don't want to be forced to have to settle on using something that is less practical. So before you begin the actual building process, make sure that you have a nice range of elements on hand so that you are not waiting a week on a Bricklink order for parts that you probably should already have on hand.

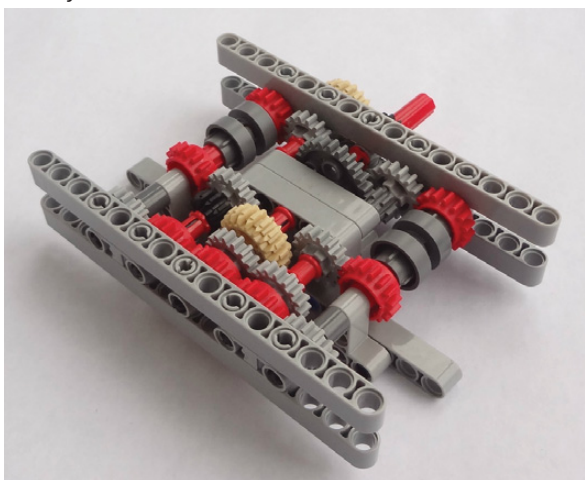
4. Try to start with a unique idea

Every time I start on a new car project, I like to start with either a new suspension idea or a new gearbox concept. This way you'll have a new goal and won't feel like you're rehashing the

same model. I sometimes browse MOCs that other builders have already done and try to come up with something new or maybe a unique variation of an existing idea. There is nothing wrong with 'borrowing' someone else's idea, but it is common courtesy to give credit to the source of your inspiration or idea.

5. The heart of your supercar

Of course we are talking about the gearbox. Many people give up here before they even start because they just don't quite have the understanding of what exactly is going on. This is where some online research can greatly help you out. There are a lot of guys out there that have videos and detailed pictures to help you understand how gearboxes work and how the ratios are determined. Gearboxes can be overwhelming depending on exactly how advanced you are trying to make them. Sometimes it's easier to get out a pencil and paper and sketch or write down exactly what you want to do, to help aid you while you build.



Gearbox

A new gearbox concept or idea is usually where I start during the process of designing a new car. Over the years I have tried to avoid using connectors on axles and instead only use liftarms to help everything turn more smoothly. Perpendicular connectors on an axle don't always line up perfectly with liftarms, so you can get axles and gears that are not sitting true and end up creating unwanted stress and friction which will drive you absolutely insane.

6. The backbone

A nice strong chassis is very important. There are many technic elements like the 3 x 5 dogbone and 3 x 5 open frame liftarms that can help build a rigid chassis and also cut down on the stacking of liftarms to keep the part count down. You want to try and keep the chassis as strong as possible while keeping it light in weight because you have to remember that you still have many other components that will be attached to it, including the body. And you don't want to overload your shock absorbers and have to end up redesigning your suspension when you are nearing your model's completion.

7. Suspension

Designing the suspension is one of my favorite parts when I do a model. Based on your model's size, this is where you may need to get creative. If your model is large, you may need 2 shock absorbers per wheel, or maybe you can figure out a way to use a single shock in a unique way that offers more resistance when you compress it.



Suspensions

8. Steering

No functional car would be complete without a cool steering system. And to add to the playability, a HOG or 'Hand Of God' hidden steering knob or gear can make the model even more enjoyable by letting you operate the model without having to fiddle around with the steering wheel inside the cockpit. I almost always try to incorporate both into my models.

9. Interesting mechanically-controlled functions

If you want to up the 'coolness' factor of your Supercar, you could try adding functions like butterfly or gullwing doors that are remotely opened or closed by a hidden gear, a retractable spoiler, or even a convertible roof. These can greatly add to the 'wow' factor of your new ride.

10. Building a better body

I think for everyone, designing the body is the most challenging part. One of the most difficult things is trying not to rush through the body design just to get your model finished. A great-looking model is what is going to attract people to check out your model even further and see all of the cool stuff that you have packed into it. There are so many Technic panels and flex axles available that just about any type of car model can be replicated, but of course this will require you to get very creative.

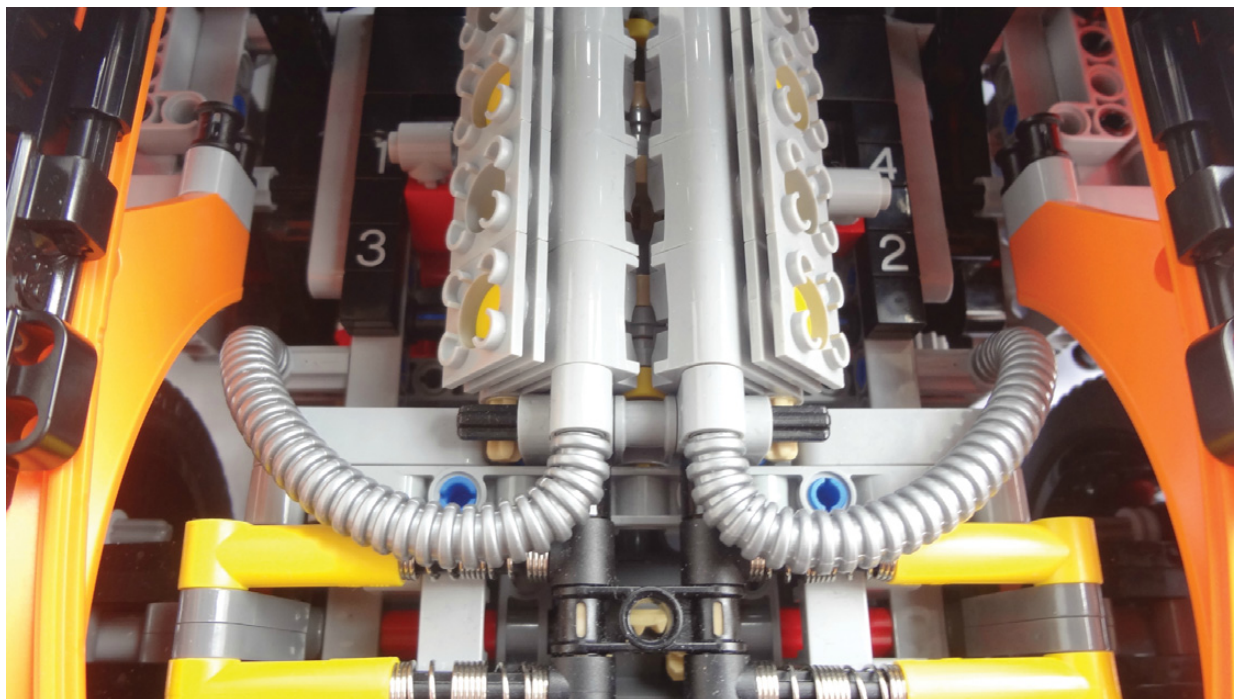
11. Frustration

When things start getting to the point where you are pulling out your hair and grinding your teeth trying to get something to work, sometimes you need to step away from your model. I cannot tell you how many times I would sit and stare at a failing mechanism in anger. I realized that if I spent too much time on one area that it helped to just move on to something else or maybe pop in a movie and take a break from building for a short time. When I would come back to my original set-back, I almost always found a solution. Everyone gets burned out building at some point.

12. Inspiration

When I started getting into building again back in the early 2000s, there were not many people building cars. Some of the main inspirational car builders from back then were Nathanaël Kuipers, Misha Van Beek, and Aleš Zorko. Fast forward ten

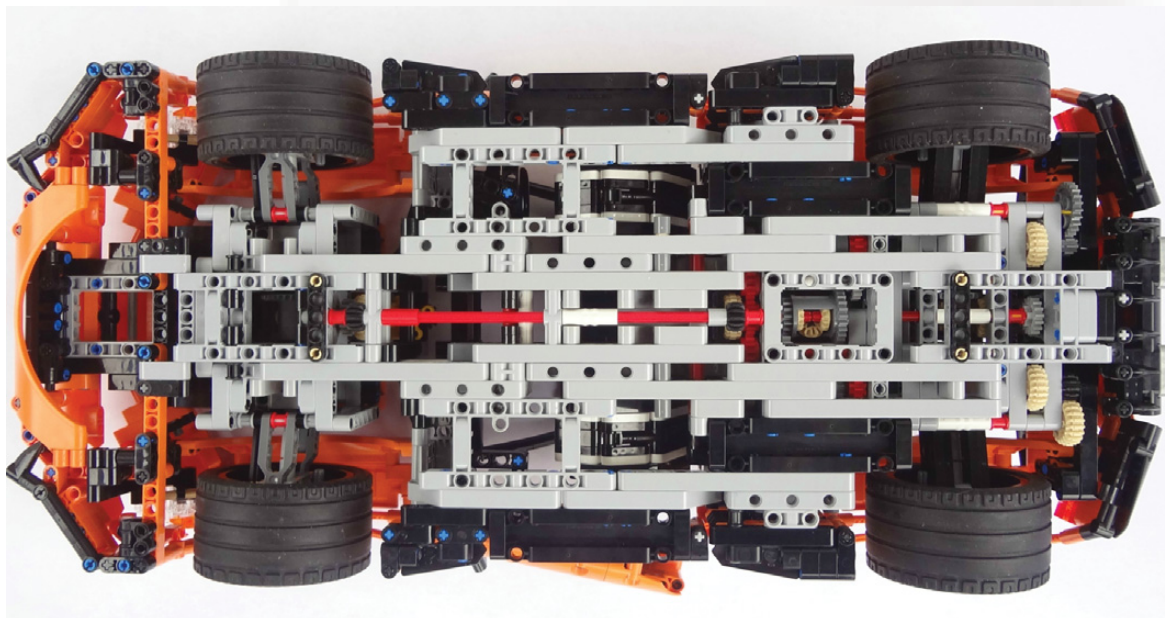
years and there are a ton of great builders from all over the world that are building awesome supercars and pushing Technic to the limit. Some of these builders include Máté Lipkovichs, Paweł Kmieć, Jeroen Ottens, Fernando Benavides de Carlos, Francisco Hartley, and many others. I highly recommend checking out their work. I have links to their work as well as many other great builders on my friends wall at my website. These guys have enough material to keep you lost in supercar goodness for days. I also recommend joining up on a Technic forum like Eurobricks. If something confuses you, then you can ask questions and get answers.



Engine and Gearbox

13. Speed is not a factor

As I stated earlier, there is no need to rush through your model. Chances are that whatever you build can be done in a much better and more practical way. Look at your parts and think of new ways to use them and try to get as many uses out of one piece as you can.



Inferior view with mechanisms belonging to all functions

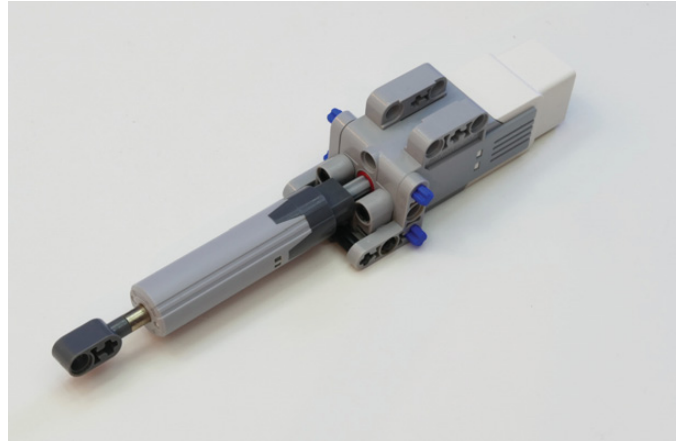
Remember, the more cleverly your model is designed, the more admiration you'll gain with your fellow Technic AFOLs!
#



Technic movements on a miniature scale

By Oton Ribic

Images by Oton Ribic

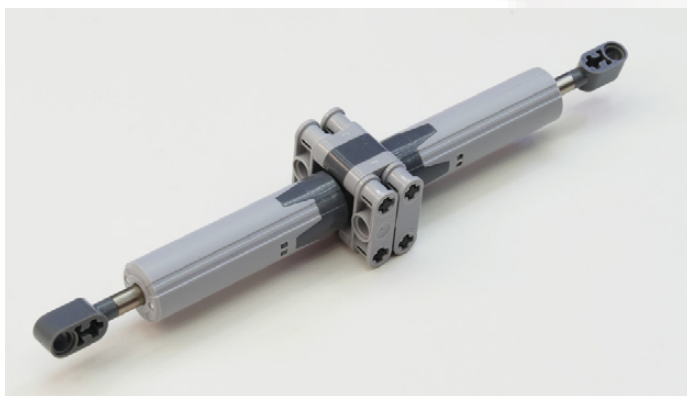


[Fig_1] In this configuration, the actuator extension can be controlled down to 1/16th of a millimeter, under optimal conditions.

It's not a common problem for every LEGO builder, but anyone who has attempted to perform very precise Technic movements will be well acquainted with it. The problem is also well known amongst MINDSTORMS builders when attempting to build accurate robots and controlled mechanisms, particularly if they need to interact with objects outside of LEGO. Basically, due to the mechanical tolerances of LEGO parts, the resulting movements often tend to have a bit of unpredictable slack. This slack or 'looseness' is hardly noticeable or important if driving an off-road car through your backyard, but it quickly surfaces once one begins hunting for fine micromovements. It should be said that the tolerances in question are not carelessness on LEGO's part – on the contrary, they are necessary in order to allow for easy building and disassembly.

Since these tolerances and the inaccuracy they incur tend to accumulate, as a general rule the simplest mechanisms are often the most accurate. In the perfect case, there is only one moving part involved in the action you want to perform. In other words, if you can avoid transmitting the movement through a few axles, U-joints, rack and pinion, or further linkages, then do so, and restrict the movements to only the bare minimum of parts.

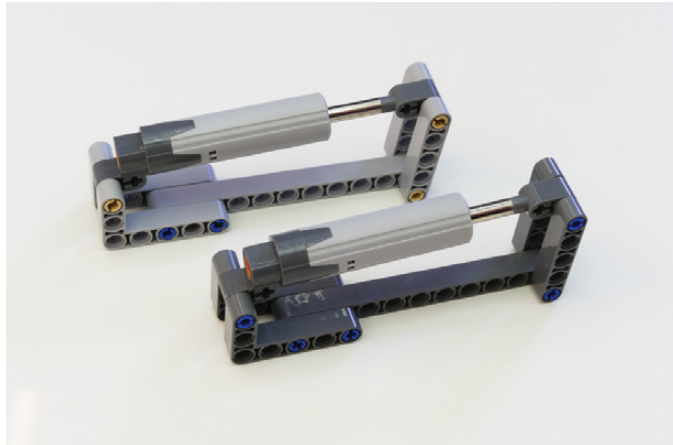
However, this reductionist approach is not always possible, and there are ways around the problem in such cases [Fig_1]. Sometimes, if the number of involved linkages is not too high (i.e. not over six), it is worth replacing the frictionless pins or axles around which the parts rotate with friction pins. They fit snugly into the holes and leave no tolerance, or backlash, as long as the forces involved are not too large.



[Fig_2] By rotating one end and keeping the other one static, these back-to-back actuators function as a single long one.

Using friction pins in large quantities, however, introduces the problem of requiring a lot of force to move the desired parts, thereby slightly bending the parts themselves and introducing even further inaccuracies. Or, for the more technical-minded, the proper term for this is that in such cases we start facing unwanted mechanical hysteresis.

A mechanically more complex approach, but one that yields better results, is to design the entire mechanism so that the critical parts are always directly affected by gravity. This is often an interesting approach for precise plotting or engraving mechanisms: if the drawing or engraving surface is horizontal, the pen or the drill bit will necessarily show some slack in its movements. However, if the entire mechanism is vertical, it will always be pushed into one direction by the gravity and precisely respond to the movement of its axle, chain, control rod, or something similar.



[Fig_3] These structures should behave identically in theory, but the darker one is more precise because of using friction pins at the rotation points that allow less slack movement, but at the cost of more resistance.

In any case, keep in mind that achieving excellent accuracy usually requires some tuning once the basic mechanism is finished. Try a friction pin here, observe the change, add a weight there, vary the angle of the baseplate – these adjustments are just as important as the underlying design.

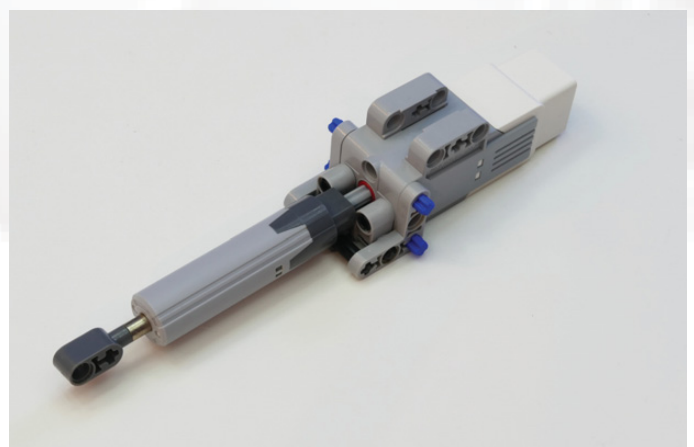
As for the maximum accuracy one can realistically strive for using LEGO parts, this depends on many factors, but we can provide a few ballpark figures for reference [Fig_2]. A generally good idea, if it suits your project, is to connect a MINDSTORMS motor directly to a large linear actuator. These actuators are sturdy, reliable (particularly the redesigned version), fairly accurate and ubiquitous.

The pitch of the actuator's inner screw makes one millimeter of linear movement per 240° rotation at the input. Taking into account that about 15° is the smallest angle the MINDSTORMS motor can reliably make, it is easy to calculate that the smallest controllable actuator movement amounts to $1/16$ of a millimeter, or about $63 \mu\text{m}$. This is a tiny movement, on the order of magnitude of a hair's width, yet perfectly achievable with standard parts, if all the prerequisites mentioned earlier (tension, tight pins, etc.) are satisfied.

The author has attempted to downgear the motor output and thus provide even finer movements of the linear actuators, or connect it to various triangular linkages which reduce motion, but it turned out that, if looking for accuracies ranging below $50 \mu\text{m}$, secondary effects surface. Tension of the actuator screw, flexibility of its supporting structure, bending of its arm, etc. start getting in the way, and although there are ways to reinforce and minimize even those effects, their complexity soon outweighs the entire mechanism alone. Still, the aforementioned resolution of a $1/16$ of a millimeter, under optimal circumstances, should be more than enough.

This is based upon the assumption that the total range of five studs, i.e. 40 mm, which the large linear actuators offer, is enough [Fig_3]. If it isn't, another option is to use rack & pinion systems, among which the new parts introduced in the Arocs Truck, designed for just this purpose, are very practical (part numbers 18940 and 18942). Their range is about 10.5 reliable studs, more if some underlying rails are provided, amounting to at least 84 mm. With some proper gearing down and tensioning, it is possible to control its movement accurately down to a tenth of a millimeter, but it incurs more friction than the actuators, particularly if large forces are involved, and also allows for some slack movement of the rack once fully extended.

An interesting third option is to use two large linear actuators connected back-to-back and rotate one end [Fig_4]. This has some drawbacks, such as being impractically long even when fully retracted, and will probably require an additional mechanism to allow rotating it freely. But these are compensated for by having an actuator accuracy over double the range, i.e. 80 mm. Even more actuators can be cascaded this way, though after the third one this construction itself begins losing stability, offsetting any particular advantage in the accuracy itself. Still, if you have plenty of actuators at hand, this is definitely worth considering.



[Fig_4] The recently introduced rack and pinion parts allow good precision at longer range, though not as good as the linear actuators.

And finally, whichever of the solutions you go for, make sure you are using parts in good condition. Worn-out parts increase the tolerances and thus slack space, while the old, worn and dry linear actuators, often recognized by their squeaking, cause more friction among the inner parts, thereby making the linear motion more skippy than smooth. Fortunately, they are not difficult to disassemble and relubricate if no other option is at hand.

#



Tutorials

Tutorial: How to repair damaged LEGO® boxes

Text and images by: Roman Gibert

My name is Roman and I collect mainly LEGO®, although also a few things related to the 80s. One of the main problems I face when I purchase something to add to my collection is the condition of the cardboard boxes. Many people have a set in perfect condition, but in many cases that can't be said of the box it comes in. The fact that it is made of cardboard makes it very vulnerable to wear on the printed side, to heat, pressure, and especially to humidity - in one word, to the passing of time. This means that the collectible item often doesn't look as good as you would wish it did.

For this reason, some years ago I started to restore these boxes, following the main premise of all of my collection, respecting the originality of the piece. This means that I can straighten a box, mend tears in a way you can't see them any more, glue back on broken lips, transparent plastic, etc. What I would never do is repaint or add modern elements to repair old ones. Only in extreme cases, when a part of a box is missing, will I insert a small piece of "modern" cardboard to make sure the box doesn't lose its original shape, but only in extremely limited occasions.

To sum up, the basic premise is to respect the originality and my goal is to make the object as aesthetically similar as possible to the way it was the day it was manufactured, with its print, plastic ad original cardboard.

The process is simple and the basic materials I use are:

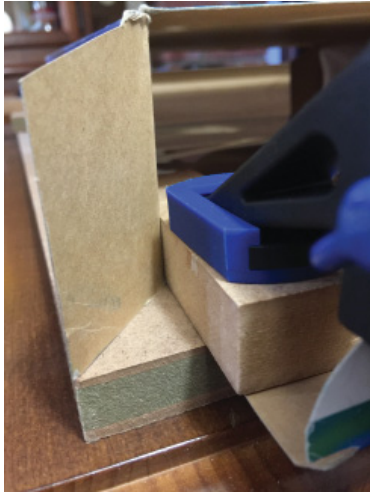
- white carpenters glue
- clamps
- tap water
- a toothbrush
- scalpel or thin paper knife or toothpicks
- strips of medium density chipboard of different lengths. Normal wood has veins that can leave marks in the cardboard we are trying to restore.
- wax paper (e.g. the paper stickers come on).
- kitchen paper and cotton swabs (to clean excess glue).

Once you have the necessary tools, the process is usually the same:

Case of a tear

I dip my finger in white glue and pass it over the tear, taking care not to apply too much glue. After this I press both sides with my fingers and then quickly pass some moist paper over the printed side as well as the inside of the cardboard to remove any excess glue. After I have made sure the area is clean and welded, I put wax paper on both sides so the cardboard won't stick to the chipboard, and I clamp it. A few hours later the cardboard is as new again (there will always be a minimal remainder, but at first glance it will be fine).





Creasing due to humidity or deformation by weight

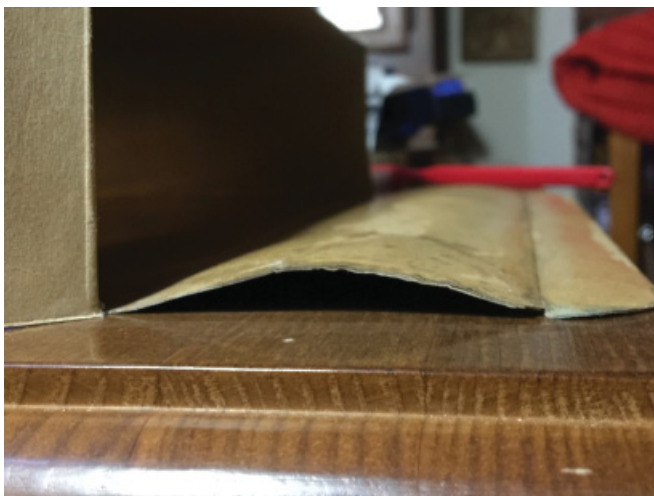


I moisten the cardboard with some water, using a toothbrush which I carefully, but repeatedly pass over the side that is not printed until I notice it has become a little soft. This requires very little time and care should be taken not to get the printed side wet (this process needs to be repeated in



steps for every part of the box, the lips, the cover, the sides, etc.).

After moistening the cardboard, place wax paper and apply pressure to make the cardboard flat again. Let it dry for approximately 10 hours. If you do the process right, the cardboard will be as new the next day.



Open lips or cardboard with separated layers

The process is the same as with tears, but much easier, and in most cases it will only take about 5 minutes of work.

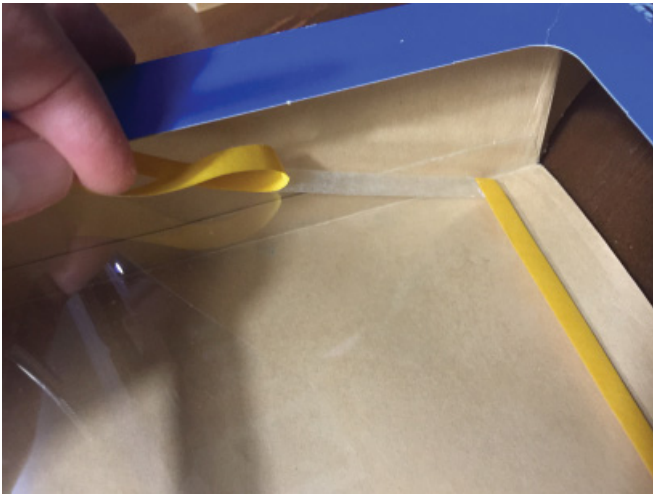


Transparent plastic of boxes with a window

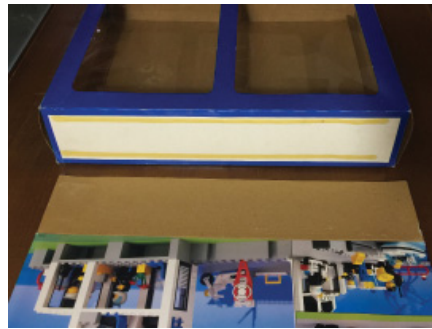
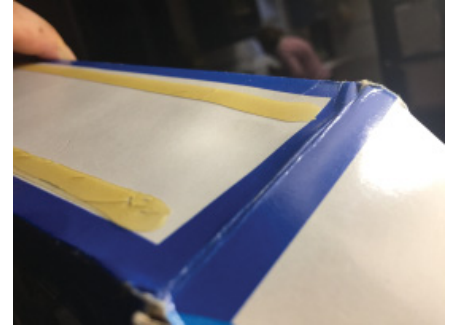
The most important thing is separating the plastic without damaging it nor creasing or otherwise damaging the box. In case you don't have it, you can buy acetate or any other kind of transparent plastic.

The process is done with transparent double sided tape (which you can easily get in any stationary shop). Take care to measure where plastic was originally glued to avoid the tape being visible on the transparent parts. The following image gives you a better view of the process.



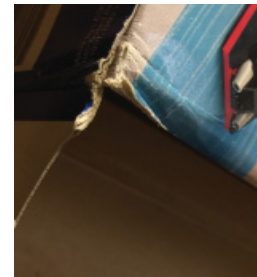
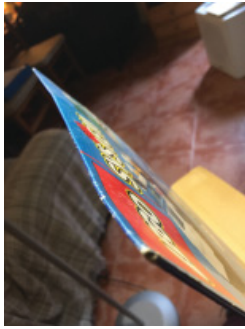


In the final part I will show you a process that combines all the steps I have mentioned above, in order to restore the cover of the box and place it back on as it had been completely detached, creased and showed signs of humidity.



I believe anyone can get more than satisfactory results in a short time using these techniques. I would advise you to practise on a modern box that can easily be replaced in case you make a mistake before you try your skills on a box that is 2 or 3 decades old.

To finish off, here are some images of before



and after :)
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Walking Robot

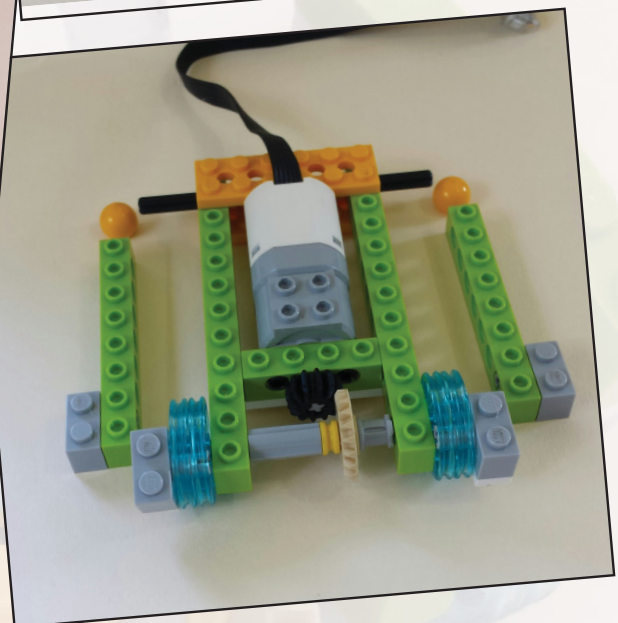
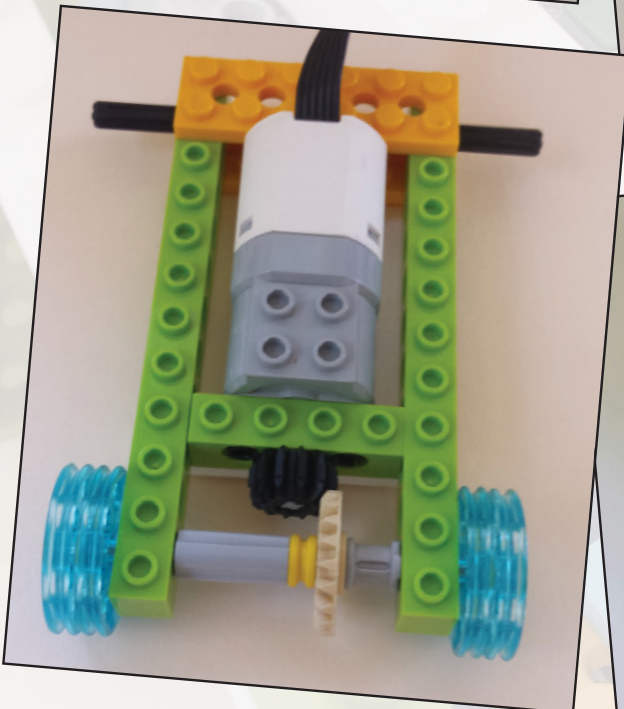
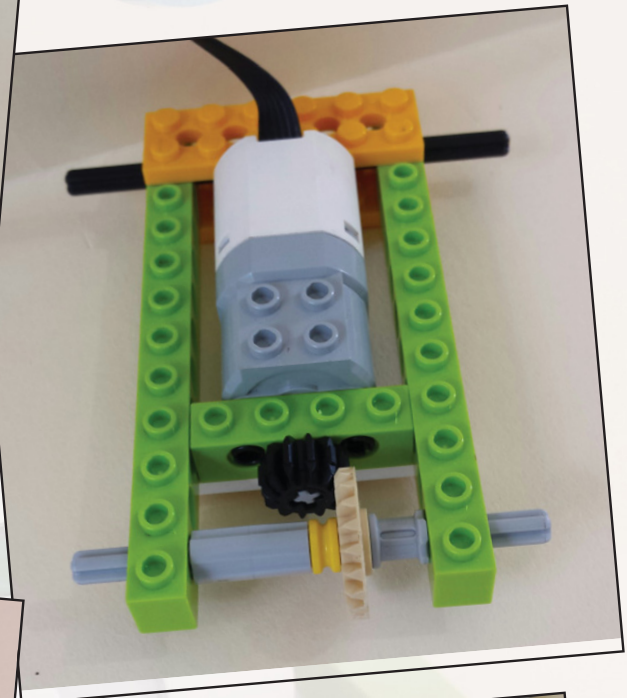
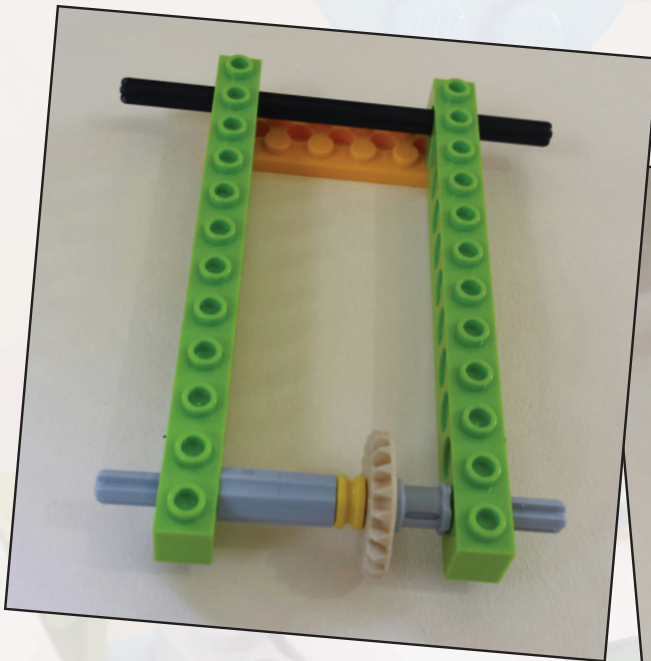
Text and pictures by Eduardo Ventura

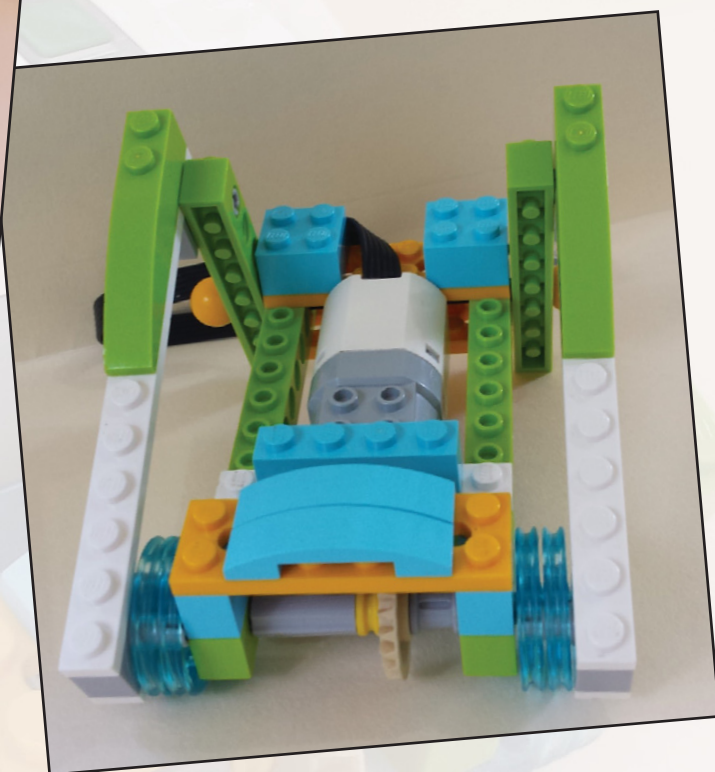
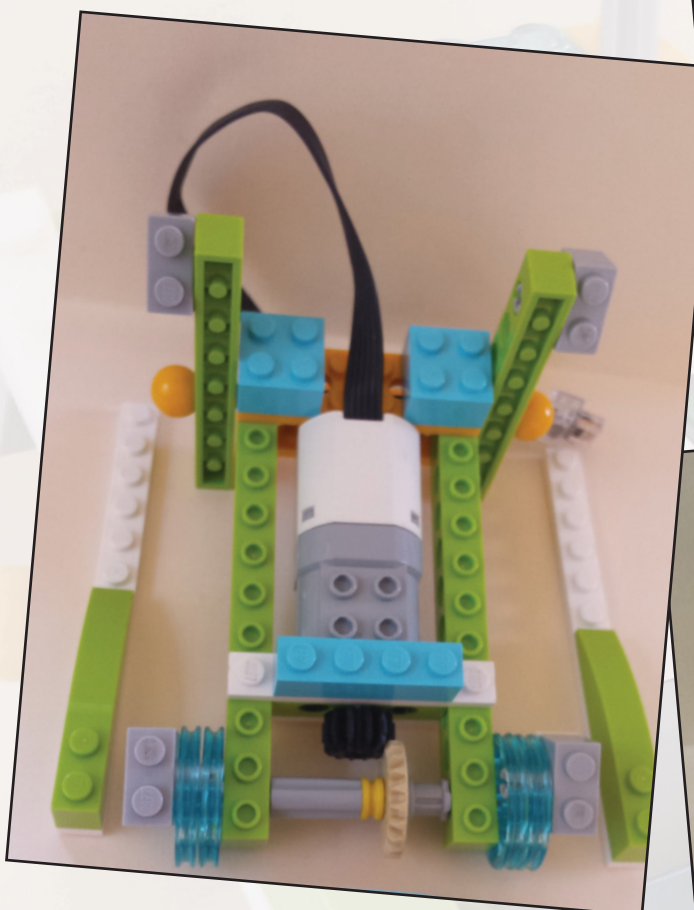
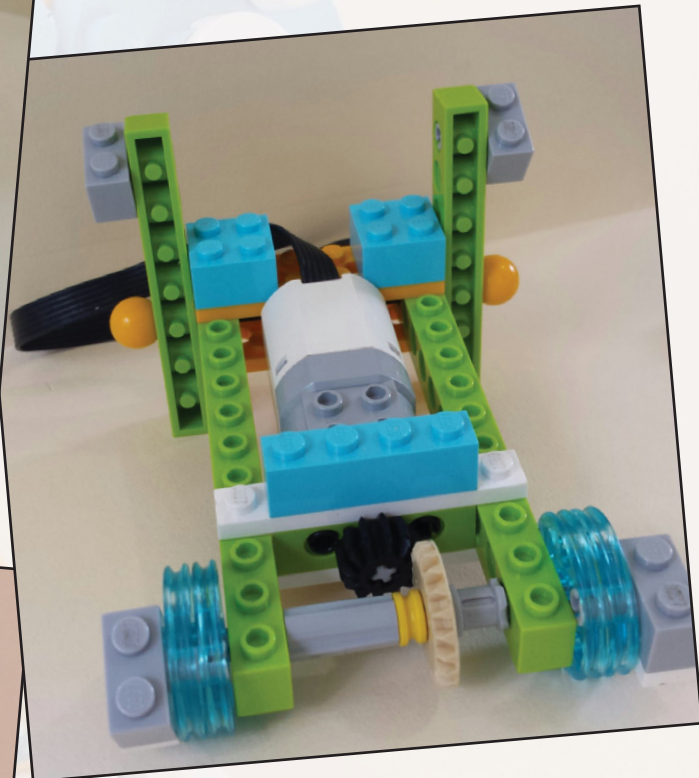
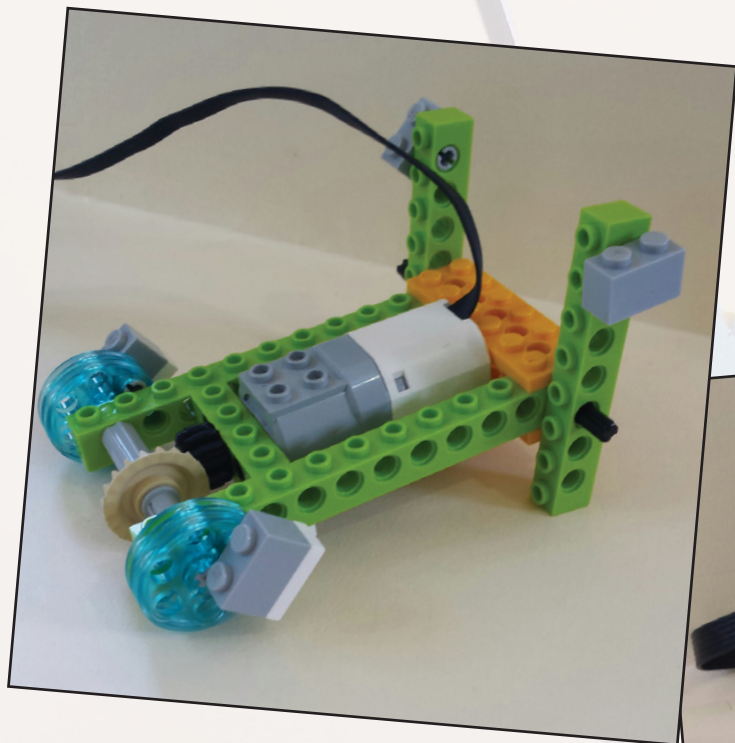
WeDo. 2.0

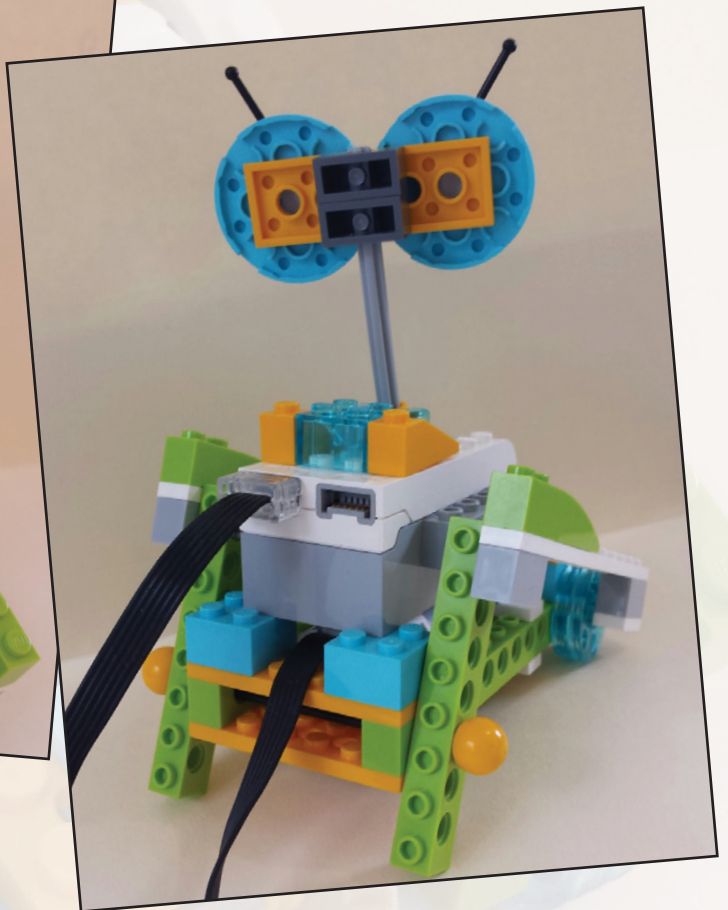
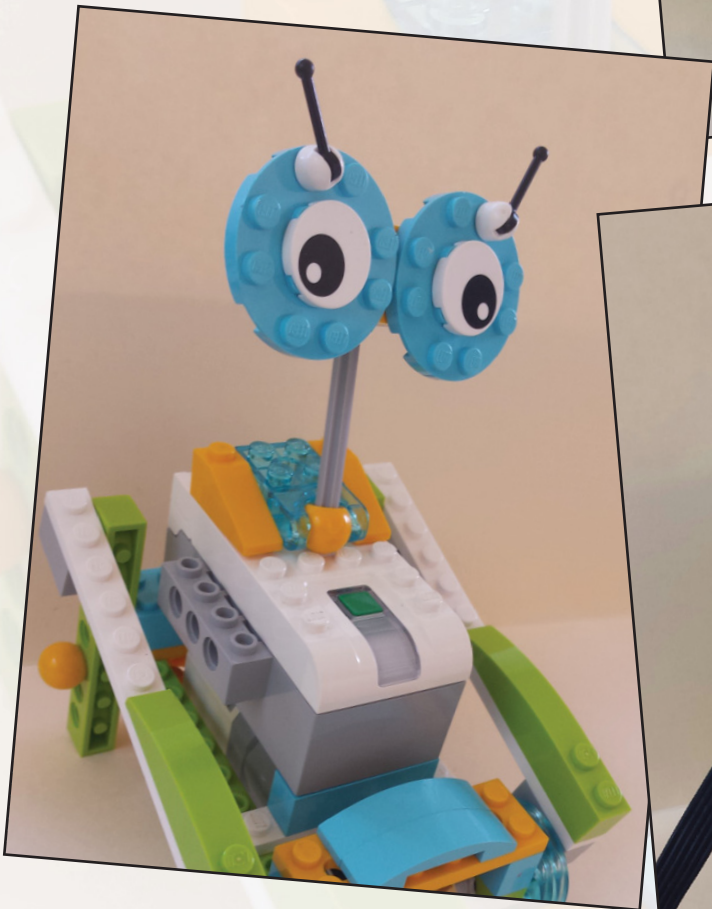
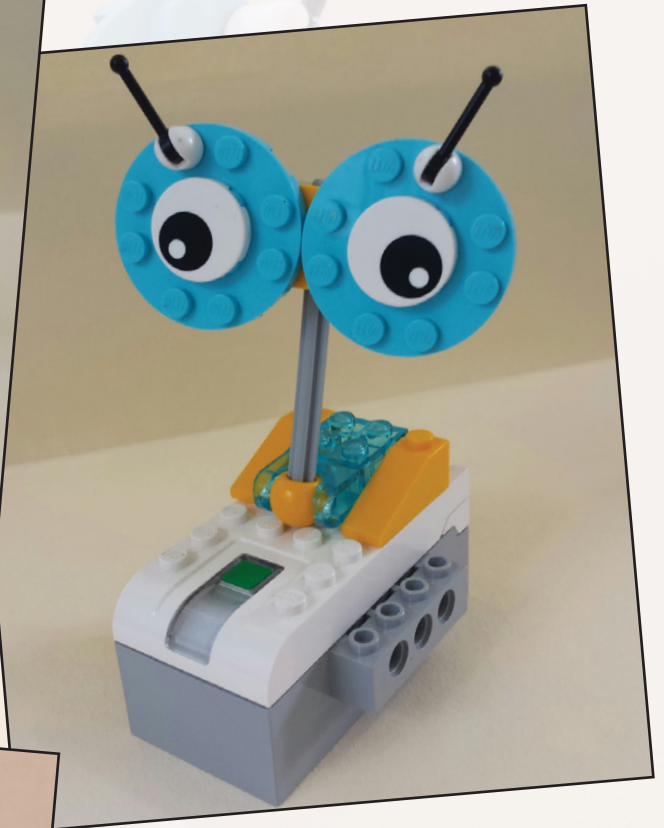
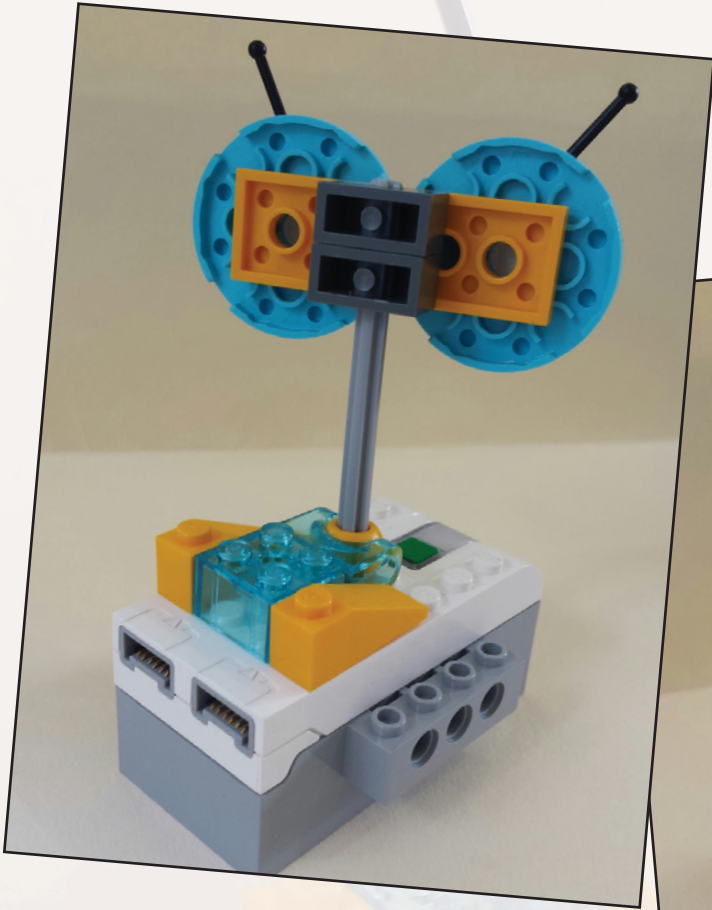
One of the big challenges in robotics is developing a robot that moves, using simple behaviours that are similar to the way humans and animals - for instance mammals, insects or invertebrates - move. Hence the name walking robots.

Walking robots are mechanical devices, equipped with a control system that allows them to emulate the movement of an animal in such a way that it can move on different types of surfaces. The following is a simple robot, powered by a single motor, gears and levers. The mechanism creates a change in the direction of the drive that results in an alternative movement in the hind legs.

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Interviews

Interview: Kim E. Thomsen

By HispaBrick Magazine®

Images by Kim E. Thomsen, lluisgib and LEGO® System A/S



Kim E. Thomsen is Community Manager of Operations & Community Engagement, LCE. He's responsible of the Recognized LEGO® Fan Media (RLFM). RLFM have a different approach to the LEGO Hobby than the classical RLUGs. HispaBrick Magazine is a RLFM, so we wanted to talk with the person in charge of us, and what's behind this idea.

HispaBrick Magazine: When did you start playing with LEGO toys?

Kim E. Thomsen: I don't recall having baby LEGO, but I do know from pictures at my parents' house that I had some DUPLO when I was an infant. So I guess from very early, from the age of 1 or 2 years old, I started playing with DUPLO and then moved on from there, until I turned 13. The last set I got was the Black Monarch's Castle I think. The one with the dragons and the scale armour. That is when I entered my dark age.



HBM: How did you become an AFOL?

KET: I guess we are all latent AFOLS. It is just a question of being triggered. What triggered me and re-inspired me to play with LEGO was the coming of LEGO Star Wars in 1999. I clearly recall walking in midtown Aarhus where I lived at that point and seeing the LEGO Star Wars sets through the window of a toy store. And then, for no obvious reason, I went inside and bought the X-Wing that came in the first launch, brought it home and built it, and I was instantly re-hooked. Since then I have acquired many Star Wars sets.

For the first couple of years I thought I was alone. I have a friend who got very excited when he saw the Star Wars sets that I was buying and he also started buying them, and we thought we were the only ones – until the Internet sped up, and became more than just a 56k modem that served you poorly and where all sites were terrible. A few years later we stumbled upon Eurobricks and that is when things really took up speed for me. In that same year, we joined the Danish user group Byggepladen.

HBM: You were part of the Eurobricks staff. What were the main tasks you performed there?

KET: I was a regular member for a handful of years. When I joined I think I was member 101 so there weren't that many of us. It grew massively over the following five years and there was a dire need at some point for new regulation and moderation of the Star Wars forum as the previous moderators left. I was one of those who were very vocal towards the current staff at that point about needing moderation in there. So I guess they did what anyone would do in that situation and said "Put your money where your mouth is" and gave me regulator access initially and shortly after moderator access in

the Star Wars forum. That meant I did the day-to-day tasks and moderation in the Star Wars forum and set up contests there from 2008 till 2012 when I landed a job at the LEGO Group.



HBM: Why did you decide to apply for the LEGO Community Team?

KET: I guess that over the years it becomes a dream. As an AFOL you really want to work for the LEGO Group. You really want to work in the department that has direct interaction with the community. You get ideas on what could be improved and how things could be done differently along with the dream of your job and your hobby melting together into one thing – to wake up every day and simply do what you are very passionate about. At the time I was living in Copenhagen and we moved back to Jutland to be closer to our families, my wife's and mine, and at that time there were a lot of reforms and changes in the school system in Denmark. I am a teacher by training, and it was very difficult to find a job as a teacher when I moved back to Jutland, so I was looking for jobs everywhere, applying for all kinds of things that I found interesting. Then for some reason, I think we moved here on December 19, and on December 21 I was browsing the Internet, looking for job opportunities and I decided to check out LEGO.com and look for jobs. Who knows, they might have something in education or something else. By mere coincidence, I stumbled upon the job listing for community coordinator. I don't even recall the name of the department back then because we changed names so often. It was probably CEE (Community Engagement and Events), because I wasn't part of it when it was CED (Community Engagement and Development), which was probably just before me. I applied for the job along with a couple of hundred other people and succeeded to land it on April 1 the following year.

HBM: An April 1st joke?

KET: It was kind of weird telling people I was going to start at the LEGO Group on April 1st. They'd ask, "Is that an April fool's joke or did you just land the job of your dreams?" I guess I landed the job of my dreams and that's what it still is for me.

HBM: How was the change from being an AFOL to being a LEGO Employee?

KET: You'd think that it would be difficult, but actually I didn't find it that difficult. I was already working as a volunteer as a moderator on Eurobricks, where you already have a change in how you can act. With every type of responsibility comes a different requirement in how you act towards the rest of your fellow community members. When you are a moderator on Eurobricks or a staffer, an 'authority' in some ways, you have to consider how you act. You have to think about what you say and write. I won't say I always succeeded, not then and not now, but I already had that to consider. I also had that

consideration in my daily work as a teacher, because you are an authority, and with that comes a certain responsibility. Taking the final step from the community into the LEGO Group wasn't that difficult, because I also made it very clear to myself what the consequences were. I had to stop being an AFOL with the community because I was now going to sit at the other side of the table with everything that the community wants. If I had landed a different job at the LEGO Group, in education for instance, I could probably still be very active in the community, but you can't be when you are the one controlling the support programs for example. So I made that very clear. I also had some good talks with my very close friends in the community on how this would or wouldn't affect our relationship and they have all been extremely supportive and understanding. They barely ever try to pump me for information about upcoming sets, and when they do it is mostly in jest and good fun. From all those that are really important to me it has made no changes and has had no effect on our friendships and relationships. The transition felt like a natural evolution. You start out as a community member, become a moderator in the community and then one of those who has the engagement with the community, trying to assist and support as best as possible, creating a win-win situation for both the LEGO Group and the AFOL community.



HBM: What were your first tasks as Community Coordinator?

KET: My first task was to get to know all of you. I was lucky to start in soft mode as a coordinator. There was a lot of learning the ropes and trying to figure out what everything is and where everything was going and how our support structures work – all the things that Jan had set out with the community that he had the responsibility for at that time; figuring out how everything works internally. Since I started in April, I also assisted in the second half of LUGBULK, making sure that everything was sent out, what wasn't sent out, making sure it was sent and replaced and getting an idea of how that program worked. As soon as that was over – half a year after I was hired – I was ready to run it by myself, with heavy assistance from Jan. After that I started to build on suggestions for how we could differentiate between the different types of user groups.

HBM: How did you handle all the LUGBULK workload?

KET: It was insanely manual back then. People would send in wish-lists. A user group would make a list of 100 elements that they would like to order and we would get 80-90 of these lists. Since they didn't have access to a decent database or an excel sheet with all the element numbers and IDs they were usually taken from BrickLink or other sites, and we would have to identify each individual element, line by line, in our system. We needed to find the true name, the true element number, and calculate the LUGBULK cost for that element and figure out whether or not that element would actually be available when we would order it. That was a very long process. It took weeks

to go through all the lists. Once we had gone through a list we would send it back and the user group could order 80 of those elements, with the same quantity rules as we have now. Then the list would come back and we would have to manually enter all that and place the order individually with the warehouse. There was a lot of manual work and it took forever. Luckily, we were still at Havremarken where we also have the warehouse, so we could just walk two minutes to be at the desk of the manager in the warehouse where we could directly speak to him if there was an issue.

Back then, we had maybe 80-100 user groups for the rest of the world; maybe 160 in total. Now have close to 160 user groups outside the Americas, plus close to 60 Fan Media globally. We are now at 310 entities we talk with in total.

HBM: How did the idea of the Online RLUGs come about?

KET: I think one of the reasons I was hired was my long affiliation with the online community through the various online communities I belonged to. I did my primary work on Eurobricks, but that does not mean I didn't frequent other communities. I was a weekly if not daily reader of The Brother's Brick and I spent a lot of time on FBTB, Brick Horizon, and similar sites because different things happened in different communities and sometimes it was nice to go somewhere and just be a regular community member again.

I think that was one of the reasons I was taken in – that I had this knowledge of the online community, and that was seen as a resource for trying to identify where we go from here. LEGO had spent the last decade, prior to my hiring, figuring out how to work with user groups. The classic perspective of a user group is someplace where you have a group of members who do a lot of physical activities and do events and meet physically about the product. But what do we do with those who are primarily online or only function online? How do we identify the different groups? Then we came up with the idea of differentiating between physical LEGO User Groups and Online LEGO User Groups.



HBM: Recently the term 'Online RLUGs' changed to 'Recognised LEGO Fan Media (RLFM)'. Is this only a change of terminology or is there something more behind it?

KET: It comes from realizing that while a classic view of a LUG was a group engaged in primarily physical activity, we now know that most user groups also have a very heavy online presence. Most of them have a Facebook page, a lot of them have a Twitter account, Flickr pages... all sorts of things that connect them online and virtually. They have forums where they do a lot of discussion. As a result, the term physical LEGO User Group didn't really apply anymore, and differentiating between them and the rest of the online virtual activity as being either an Online LUG or a Regular LUG didn't really cut it anymore because a LUG has physical presence, but also online presence, and a lot of it. We discussed



how to differentiate that and thought maybe the rest of the online community isn't really a LUG. This is of course our terminology. We would never say to anyone that they couldn't call themselves a LEGO User Group – that's very important to stress. Anyone can use that and if some of the fan media now consider themselves a LEGO User Group, that's fine. Our terminology, the sorting that we do in order to get a better idea, is that we have the Recognised LEGO User Groups which do online and physical activities – they have a strong online presence, but also do events, build meetings, these classic things – and then we have the online community, which is now sorted within the box we call Recognised LEGO Fan Media. These are YouTube channels, major blogs, giant online communities like Eurobricks or The Brother's Brick or Brickset for example. Some of them have overlap. Some are blogs and forums, some are databases. We are looking closely into the Fan Media now to see if it makes sense for them to be sorted into just one box. There is a vast difference between HispaBrick Magazine and Eurobricks in what makes sense and in what ways we can best support each one. We don't want to set up the same requirements or criteria if it doesn't make sense. We are looking at that, but right now this is the box and the reason we have called it Recognised LEGO Fan Media is that it was confusing to call it Online LEGO User Groups, since a lot of the physical LEGO User Groups were saying: "We are online, so why are you telling us we can't be an Online LUG?" To a larger extent – and this is generalising again – the Fan Media have a global reach or they are of important tactical value. A user group can have an online presence, but that is often quite local, as in a country or region. That is not global; hence, they are not Fan Media. That's one way of explaining the difference. Some would ask why we have recognised Fan Media that are German, or for instance Revista Bricks in Chile. Germany is a large market for us, so we have a strategic and tactical interest. They are more or less considered so important that they are equal to global reach. South America is very important to us as a new market that we want to build, so we want to add a little extra in that market.

HBM: How do you think the RLFM will evolve?

KET: I started out with 20-25 communities that we identified. We have opened up applications for recognition and now we are close to 60. I think we will see a massive growth in that area. If we can ensure a steady flow of resources, we might see it grow even further to where we have as many fan media as user groups in a handful of years. But it is very hard to predict the future in an online world. If we had sat down five years ago and had this talk, none of us would have expected the landscape to be what it is today, and it is hard to predict where we will be in another five years. For this year and the next year I think we will see a lot more interest in being recognised as fan media and a lot of good talks and discussions on what it means to be fan Media. I hope to have some of these discussions at the fan media days that

are coming up, with the representatives who come, because we also want the community's take on what fan media is and whether it would be a good idea to split it even further. There are, of course, differences between the fan media we recognise. There are different needs. We need to think about what we can support from LEGO Community Engagement and what the hopes and expectations of the Fan Media are. We are not primarily marketing. We try to promote value creation and inspire activity in the community, whereas some of the fan media have a dire need for marketing interaction, because that is where a lot of their scope is, for instance with reviews or product analysis. That is not our primary function. We do some of it on a global level, but most of it lies with the local markets, which is why with recognition we are pushing both fan media and user groups in the different markets to those markets. In the end it is a marketing decision if they want to activate all of those channels or just some of them or even none of them.

HBM: Last year LEGO organized the first LEGO Fan Media Days. Why did you decide to organize this event?

KET: That was to make everything as simple and easy and as much of a win-win situation as possible for everyone. We could see with the growth of the fan media that it simply wasn't possible for us, for example, to offer the opportunity to do interviews for everyone. There was no way I could persuade the company to do daily interviews, not even by email or Skype with so many communities. At the same time, we wanted to offer all the communities good content. It is easier to persuade a team here in Billund to take one day, rip it out of the calendar, and sit down in a room to talk with as many people as possible about what they do. That would result in some eight articles for each of the media that they could use as content on their sites. We also did it to create an opportunity for networking so we could have fan media come here to network with us and network with each other. We could look each other in the eyes and have some good talks on how we could support them the best, how they network best and what both their and our goals are. In emails, and even in phone calls, it is very difficult to decipher exactly what people mean, or if what they say is said with a smile. It is also easier to have email discussions with people once you have met them face to face. We wanted to create that opportunity and we wanted to create the opportunity for the community to come here and get a lot of solid content they could bring back and share with the community afterwards.

It is primarily a networking event to meet face to face and there is a bonus for everyone in that the community gets to bring home content. We also get to promote some of the things that we would like promoted, and we try to pick interview opportunities of interest. It not that we want to push Ninjago on all markets so you only get to interview Ninjago this year – that's definitely not the intention.

HBM: How was the experience in your opinion?

KET: It was insanely successful. Much more than I dreamed of. The fan media are slightly different because in some ways they are also competitors when they come here. One of my personal concerns was that maybe the competition would be a little too strong, but there was nothing like that. It was a couple of fantastic days where everyone enjoyed themselves. Afterwards, all those who were interviewed came back and said "Those were the best and nicest interviews we have ever had". The fan media are so interested, so passionate it's not at all like being interviewed by regular press which are always looking for scoops or insights whereas the fan media was all about the brand, the passion, the process – all those things that also interest us here at the LEGO Group. I had calls from

different product groups saying "We want in next year, please include us". The real problem right now is finding a place that suits our needs in being able to do better interviews. The venue we used last year was a little too small and a little too noisy. It is difficult to find a good spot in Billund, where all meeting rooms are always booked. We are working on that. But it was a huge success.

HBM: You have announced the second Media Fan Days. Will there be any changes, or is the philosophy mainly the same?

KET: The philosophy is the same. Some of the feedback we had last year was that it was a little too short, so we have added a full day to do more networking. Last year we had a morning session where we discussed the community and topics of interest to the community. This year we will do more of that to have more talks so I know – and don't just think I know – what the community would like to get out of the support and cooperation they have with us. There will be more of that, but the basic idea is still the same. It is a networking event and it's an opportunity for us and for the community to get some strong content out there to the AFOL community.

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LEGO Fan Media Days 2016 group picture

Interview: LEGO® Bionicle Design Team

By HispaBrick Magazine®

Pictures by HispaBrick Magazine® and LEGO® System A/S



From left to right: Christian Vonsild , Cerim Manovi and Steen Lindeberg

Bionicle is a relatively unknown theme for AFOLs. When we were asked to interview the Bionicle team, it was really a challenge for the HispaBrick Magazine team. We put all our efforts to prepare the best questions. But after interviewing Steen Lindeberg (Director), Cerim Manovi (Designer Lead) and Christian M. Vonsild (Designer) we have to admit that we see now Bionicle with another eyes. They transmitted us their point of view and their passion about this theme, and what's behind the characters and the storyboards of the theme. Here you are this interesting interview. Enjoy Bionicle!

HBM: Did you choose to be a designer with the BIONICLE line?

Cerim Manovi: I started 9 years ago here. I had an opportunity, and by coincidence I started in the construction department when there was no system yet done for BIONICLE. I think BIONICLE was just about to end and HERO FACTORY was just about to come out. I was working at a front end team at that point where we were working on the system, so no I didn't choose to go into BIONICLE, but I am very happy to be part of BIONICLE.

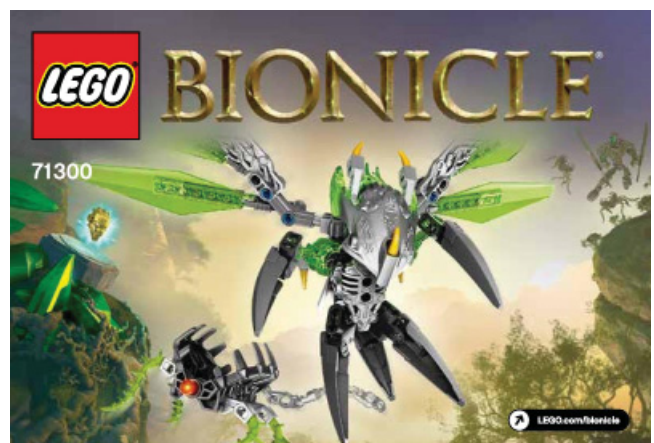
HBM: Are there other LEGO themes you would like to work with on in the future?

CM: I think it is great to have a lot of different experiences. I think it is always nice to have a change here and there. I have been working on this for 9 years and I don't miss anything, but of course, if the opportunity were to come up I wouldn't say no.

Christian you asked to work for another team.

Christian M. Vonsild: Yeah, I have a background as a industrial designer. One of my friends was working down here and she said there was an opening position in CREATOR. So I applied for that, and I didn't get that job, they turned down my application. A month later they called me, "by the way is it

possible for you to come to this workshop?". Everybody when they get hired goes through this workshop where over two days we sit down and build stuff to see if you are able to build and how well you work with other people. I went to that. Then I decided to go out sailing for three months. So I was out in the Pacific when my boss called me and asked me if I wanted a job at LEGO, and I said "Yes, of course". Then he said "you are going to work for HERO FACTORY". And right when I put down my phone I could not remember what theme it was that I was working on (laughs). So it was actually 3 months later when I came back from my trip, I came here and the first day I had to say to my boss "what is it that I am working on?". Basically I got put into the construction team where we did HERO FACTORY back then and now we are doing BIONICLE and also STAR WARS™. I couldn't be more happy, we're a small tightly knit family of good friends. And of course as an industrial designer it is very much a process of design and I don't think the process is very different among themes, if I worked at some other place in the company it wouldn't bother me, but I am happy, we are good friends and we are creating an awesome product.



HBM: What part of designing BIONICLE models do you like to most?

CM: I am the lead designer so I like very much to set the direction and to see that you start on the front end, where are we heading towards, and then really work with the guys on setting the direction and saying, okay this is what we are going to do and this is what we are going to put in there. So I really prefer the conceptual phase, but I think also doing the product at the end is also great. I prefer really to work with a bunch of amazing creative people, trying to come up with something awesome.



CV: I think the one thing I enjoy the most is actually the whole process. It sounds a little bit weird but the whole process of starting something and also going out and testing with kids and seeing their glow and totally engulfed in this.

CM: or not understanding what it is about. It is always nice to get the feedback from the kids.

CV: For example when we tested the Episode VII Star Wars stuff, talking to the kids and then seeing, yes, they know that character. I've seen the movie (no you haven't). I also work a lot designing elements, most of us also do elements, and I really enjoy that also.



CM: The great thing about working on this theme is that we do everything. We design elements, we build the models, we work on the concept part of it, we collaborate with our friends in Marketing. We see the whole picture and that's really nice. And of course in a theme like BIONICLE, you have the whole story on top of that, which is just amazing, to work also beyond the product you have something where you can communicate what this is all about. I'm always being reminded of how it was for me as a kid and watched all those cartoons and now you are in a place where you actually do this same thing and you can influence the kids in the same way as you were influenced when you were a child. The awakening of the inner child, it's amazing.

HBM: Do you have any feedback from the kids that play with BIONICLE? What does they like? and what don't they like?

CM: When we have tested it with the kids there hasn't been anything they said they didn't like. They tend to get engaged with the storyline. The storyline is very engaging for them: they like the conflict between good and evil, fighting for the masks, but the love the characters. Some like Tahu, the red character, some like the white character, some like the villain character more and so on. Everybody has their different preference. Some like blue more than red or fire more than ice, so their likes are very different, but I think for Bionicle it is more the sum of things: an interesting and engaging storyline, great visuals, both in terms of the boxes, but also the posters that we make and the animations we made for the first series and the Netflix series we are doing for this year. And then the amazing models with functions.



Tahu - Master of Fire

CV: If you can give a kid something like this where you can play out a story in a nice way. They are searching and fighting for their masks and when they find them they can combine with their elemental creatures. If you can do something like this, the kids are really engaged in the playability, the functions

CM: That transformation of the character and being able to go back and forth without having to rebuild - they get an instant kind of play. They like the expressions and also the functions, which help them to play out their inner movie.

HBM: You are probably aware that BIONICLE is one of the themes with less followers along the AFOLs. Why do you think that this happens?

CM: I think it's just a smaller portion. It is a more specific theme. There is a whole portfolio and in the community there is more something for everybody. Here you have to be engaged with a more fantasy world and drawn into this more robotic aesthetics, so it is a bit more special or different in that way. It is also a different entry point.

HBM: How important is the TV series to support the product?

Steen Lindeberg: It's always important if you can get a TV series or a film or something that can engage the kids deep in the story. The box is usually the first thing the kids meet and there is a limit to how much story you can convey on a box. When you go online you may be able to read something, but animated series, like a TV series or an online series or a movie just fleshes out the story and shows the kids how to play. That's a great way of talking about the different characters. When you are talking about action figures like these are, they need to know the characters; the characters are the interesting ones.



CV: It's a different experience. When you have franchises or IPs you need to have a story that supports it. If you go for something like Creator it's a different play pattern that you use there and you build something that you know all about so that helps them to understand and engage and to play out their own stories around these characters.

HBM: Due that BIONICLE is inspired in fantastic worlds Where do you get the ideas to design worlds and characters?

CM: The starting point was generation 1. These came from Voodoo masks with robotic aesthetics. When we did generation 2 we took a lot from there and then the rest we came up with whatever inspires us in our daily life, like nature, something you have seen somewhere ins cave or a glacier, but it can also be influenced by a cultural or subcultural aspect or movies, TV shows, comics, novels, whatever inspires us. The cool thing about a big theme like this is that everybody brings in something different and different viewpoints. Maybe someone is more interested in supercars, the other guy really loves sci-fi. That's a great starting point.



Bionicle Generation 1

HBM: When designing new parts What level of freedom do you have knowing that those parts will probably not be used in other themes?

CV: We actually try to design the parts so that it is possible for others to use. Of course when you talk about Star Wars, there is a head that will only suit that figure, but we try to develop elements that we can use in other themes also.

CM: Here you can see are different approaches, because as Christian mentions, Star Wars is a theme related element and that is most likely going to be used in that theme and that theme only. But if you look at the weapons or a flame, that is so generic that it can be used all over the place. Then of course you have System elements, or from our Construction system that is based on this system.

SL: I.e. there are element from Elves, so we also cross-use from other themes. And that's the goal of all things we do in terms of elements, to make it fit together with the rest. Of course ours are more Technic based, so maybe we have a greater fit with Technic elements than with System elements.

CV: The masks are pretty unique to us, nobody else would use those and then maybe the chests, but other than that, most of the other elements can be used by others.



Skull Scorpio Mask - San Diego Comic Con 2015

SL: The ball caps were used in a lot of mech builds for system based sets, Ninjago, and also some technic parts. There are a lot of things that are also used by other themes and teams.

CM: It is a great benefit for our product if other themes can use it as well. It helps. The more you make of one element the price goes down.

HBM: Do you have any influence or benefit from the fact that a license like Star Wars is doing similar products to Bionicle?

CM: We are actually doing the Star Wars figures. Of course we try to make sure that as much as possible can be cross used. Again, volume is a big help for our themes, but there are some that

CV: We can only have a certain number of new elements per year, so we have to try to cross use.

SL: Of course we have some freedom, because we base this on the themes we are doing, so if we need masks for those guys, we make them specific for this theme, because that is also what differentiates it, because we have, let's say 80% of the same frame we use, like bone structure that is what gives



shape to the figure, and also the shells. And then you have some elements that are specifically for that theme. And then you have the design freedom to express what you want to express.

HBM: Do you think that BIONICLE is more dedicated to boys than to girls?

CM: It is definitely a boys target group we are going for in this, but we know there are quite a few girls out there playing with BIONICLE as well. Also when you look at the fan groups there are quite a few girls that are into the story. Some of the greatest models we have seen were built by girls, but they might also be artists that do fan art or write stories. I think the story is appealing to girls as well and the models and the build are definitely relevant for girls as well.

HBM: Have you ever considered doing a huge Bionicle set like a UCS?

CM: In our dreams maybe (laughs). We can build quite big as you can see, but if you look at the action figure market, the price point is around 10-25€ so we have to know what market we are competing in also.

SL: Our inner child says yes, but it's kids that are playing with it and if they have to move around this huge model then it's not really playable for them. Of course then you are talking about a completely different target group.

HBM: Is that also the reason there are more characters than vehicles or scenarios?

CM: This is a theme based on figures. Sceneries or vehicles is not something we would build out of these elements. That's why we say we are character/creature based



HBM: But there were some in the past...

SL: The sets become more Technic based when we go into vehicles. And we saw a bit of a clash.

We are not saying we would never do vehicles, but first and foremost we need to do the characters that are important for the story. Then we can look at what else we can do.

CM: That's also where you get the emotional hook.

HBM: have you ever considered a model with electric / electronic mechanism?

CM: We did have one in the old serie, a remote controlled crab, again more Technic based. Typically it becomes very expensive when you start putting electronics into it. And again, we know that the market for action figures is around 10-25€. That is the price range we are moving in. And if we start putting an engine in then you are not getting a whole lot of bricks with it.

HBM: Is there any idea that you'd like to add to the theme and couldn't?

SL: You always start with a big model and then have to scale it down, but not really.

CM: You are bound to a certain price point. You have a specific number of bricks you can put into it. That's your brief.

SL: Then there is also playability and safety. The models need to be stable and sturdy. This is about as big we can build on this kind of torso and still have a function in it. And if we build it any bigger than that it is just going to fall over and it is not going to be playable in the way we want it. So we have to consider different things when we are doing this . You might have an idea that you either have to do in a different way or you have to scale down or do something else with in order to put it in, to live up to price point, safety, buildability and all these things. I think the designers are pretty creative to get the things that we really like in there.

Of course it is not an AFOL build. That's the big difference. This is done for a certain target group. A certain age group, it has to be playable, it has to be stable, and in the end, there is only so much you can spend.

HBM: Do you think BIONICLE is a violent theme?

CM: No, it's a conflict based theme. We definitely think that conflict is an important part of the theme - the conflict between good and evil, the conflict over the masks.

"Conflict adventure"

That is also a big part of the way kids and especially boys play, with the conflict, and they learn from acting with the conflict, so we don't see BIONICLE as a violent theme, but as a theme with a built-in conflict.

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LEGO® Bionicle design team during the interview

Interview: LEGO® House

By HispaBrick Magazine®

Images by HispaBrick Magazine® and LEGO® System A/S



The works in the LEGO® House are evolving in a good way. One year after the interview with Astrid Mueller (Senior Event & Tour Manager of the LEGO House), HispaBrick Magazine had the opportunity to interview Trine Nissen (Senior Communications & PR manager of the LEGO House) and update our information with the latest news.

HispaBrick Magazine: Last year HBM had a sneak peek of the LEGO House. Could you explain how things have evolved from last year?

Trine Nissen: I was put on the project in November 2015. I'm the senior communications and PR manager. So in one way I have only been with the project for half a year, but then I have a background with the LEGO group. I worked here between 2000 and 2008 when I was in corporate communications. So in that respect I know the company quite well. Obviously a lot has happened in the meantime.

There is the floor where you come in and then there is a big square – 2000m². From there you have access to the huge LEGO shop, to the forum, the conference room, to three different restaurants and then there is the administration building. You have to book your ticket online and when you come you get a wristband which allows us to follow you throughout your visit. When you go through the turnstile with your secret wristband, and you walk up the stairs along a secret model that is being built right now in Kladno, you come to four different zones coloured in four different colours. I would love to talk more about exactly what this is because there has been a lot of change. When I came on in November there was also a new lead for our experience team – a guy called Søren Holm (Head of Experience of the LEGO House) – and he reworked everything because some of the experiences were good, but not phenomenal; so that's what he has been working

on – we are leveraging this. It has been approved by the steering committee and we are going with these four coloured zones, and some of these experiences we have seen before but a lot of them we haven't. I'm afraid I can't tell you any more for now.



HBM: Is everything going according to plan?

TN: Yes. The big thing for us was the arch and the steel bridge where we used 1900 tons of steel and that whole process postponed the project one year. So in the beginning we said we would launch in 2016 and then it was changed to 2017 – the second half. We are sticking to that and it is going really well. There is an extremely big dedicated team that works very hard and you can really feel that people (including myself) feel so privileged to be on this team. We really want to do our best and there are all these competencies. Because when you build a house like this you need a competency for managing the flow, you need marketing plans, you need designers for the experiences, IT people for the ticketing – there are so many different kinds of competencies being drawn into the company. I think that is a really cool thing about working here.



HBM: Will there be any areas that are open to all the public, including non-visitors?

TN: Yes. When you come into the area I mentioned before, with the big shop and restaurants, the forum and the administration, that is all open without payment. It is basically a roofed part of Billund. It would be open in summertime maybe from half past 8 in the morning till 10 in the evening and you can just go in and have a glimpse of that cool architectural building, and also you can walk here over the building without paying for a ticket and just have fun. There are a couple of terraces you can only go to from the paid zone, but there is this interesting mix between public/free and payed-for areas.

HBM: I heard the building was designed following the LEGO® system. How does the house fit in the LEGO system?

TN: On many different levels. If you look at the proportions of these 21 bricks, they have also been alternated, so they fit into the LEGO universe – that is one way. Then if you go past the building site at the moment, you will see that the tiles we put outside are also the same proportions as LEGO bricks – you either see a big one from the front or the side – so it also looks like it is built out of bricks. And then we are really taking this to the next level, because the whole idea of this system is built into the furniture we are building. We have specially made furniture. Down in the basement we have display cases carefully made to fit the proportions, so in every detail you get the feeling that everything fits together. You may also know about our masterpiece gallery that we have on top. We are going to invite 20+ skilled fans to build really cool models there – we really mean from the bottom of our heart for this to be a way to celebrate the creativity and skills that are out there.



HBM: How is LEGO as a company living the project of the LEGO House?

TN: We have done an internal PR plan to ignite this project throughout the entire organisation. Right now our managers do presentations when they have meetings. And because we are using all these different competencies from the entire company

that means we have a lot of ambassadors and contacts all over the company. It is very important for us to have people here who like the project and that the LEGO employees like it too. And I think we are succeeding there.

HBM: Are the people from Billund more confident about the project?

TN: Probably, because it is always a challenge. There are 17,000 people who work for LEGO, but only 5,000 here in Billund. Obviously we would love to say everybody has access, and if you come to Billund and are a LEGO employee you are welcome to visit us – you don't have to pay for that. But we cannot ship people in, so if you live here in Billund you can use it more and it is easier for you to invite your friends and family to come and see.

HBM: How do you think life in Billund will change with the LEGO House?

TN: I think it will change a lot. I think we will have 250,000 guests per year driving into the middle of what used to be a small town with not a lot of things happening, and suddenly you get this huge attraction. This has also inspired the rest of the city to have their own 2030 plans. They have made new plans for how the town is going to evolve and how it will expand. I think it will change dramatically.

HBM: Is there any fixed date for the grand opening?

TN: The date has not yet been set. We still say the second half of 2017*, but as soon as we know we will let you know.
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Trine Nissen - LEGO House Senior Event & Tour Manager

* The official opening will be on September, 28th 2017

Note from Editor: This interview was done on June 2016

Worldwide Collectors of Exclusive Minifigures

By Lluís Gibert

Images by Marc-André Bazergui, William Wong and Shawn Storoe



Marc-André Bazergui's Linked-in LEGO® Style

There is a small group of people whose life is a mess. They try to collect all those minifigures that are not in the regular channels. Minifigures like Employee Business Cards, event and promo related. In the next pages you will understand why they decided to collect them and how they try to improve their collections.

HispaBrick Magazine: Name, country and occupation?

Marc-André Bazergui (BAZ): Montreal, Technical Support Services, IBM Canada (also a freelance consultant working on MINDSTORMS related events and community engagement).

Lluís Gibert (LLG): Barcelona, Software Engineer in automotive industry. Founder and editor of HispaBrick Magazine®.

Shawn Storoe (SS): United States, Software Developer.

William Wong (WW): Hong Kong, Freelancer / Consultant.

HispaBrick Magazine: How did you start with LEGO®?

WW: I started with the set 6522 Highway Patrol as birthday present from my parents. Then continued with LEGO as a hobby for nearly 30 years.

BAZ: I fell back into LEGO in 2004 with the discovery of the MINDSTORMS RCX.

SS: I started with Lego Expert Builder sets in 1978 when I was 9 years old. My parents bought me the 952 Farm Tractor set and I was immediately hooked. I graduated to a few other Expert Builder sets and I eventually received the 956 Expert Builder Auto Chassis on Christmas of 1979 and fell in love with creating gearboxes and creating gear reduction contraptions. I settled on building a six-wheeled car with the two wheels from the tractor and the four wheels from the auto chassis, and I used to push

the chairs around in our dining room. The car moved so slowly and once in a while it would break an axle when I made it too powerful. In my early years, I never had any minifigures.

Once I entered high school a few years later, my love and collecting was focused on comic books and I went into my LEGO® dark age around about 1982.

Flash forward to the year 2000 and I was at Target. My wife and I were looking at playpens for our soon to be born son and I passed the toy aisle and was mesmerized by the most amazing set I had ever seen: The Lego UCS X-Wing fighter. I picked it up and started to walk towards my wife to put it in the cart, but I decided that this would not go well. "Hi Hun, I would like to buy this \$150 Lego set on a whim." I reluctantly put the set down and we went home with our playpen.

However, the damage was done. I thought about the UCS 7191 X-Wing Fighter all night and finally went back in the morning to target at 9 AM and purchased the set. I carefully picked out a perfect box and brought it home where it sat on a shelf and still sits today. I tried to build the set a few times, but I could not tear open the box and I eventually bought a used one on eBay in 2002 which I was able to build. Along with the UCS set, I started to buy all of the other UCS sets and all of the other Star Wars sets as they came out over the years.

At some point, I started organizing and collecting the minifigures into display cases which I placed on the shelves in my office. I carefully inventoried and displayed every Star Wars figure and continued to do this while carefully following the inventory in BrickLink and Minifigs.nl. I collected only Star Wars figures until 2012 when Lego started creating Marvel and DC Super Hero minifigures. At this point I was overwhelmed with just trying to keep track of my Star Wars collection and now I was going to add Super Heroes to the mix. I started collecting rare minifigures when Lego decided to release only 125 copies of the New York Toy Fair Iron Man and Captain America figures. I sat up all night watching eBay and eventually picked a set up for a reasonable price that night, even though it was a lot at the time to pay for a minifigure.

I started having problems keeping track of the figure variants that BrickLink and Brickset did not list on their websites. I decided to create my own list on a website to list all of my figures and that is how the priceguide on www.minifigpriceguide.com was born. It was originally just a list of all of the figures that I owned and then eventually a list of all of the figures that I was also looking for as well. I later started the blog to also talk about the figures that I wanted and would never be able to get. For example the 14K Solid Gold C-3PO.

LLG: I started at the age of six. Due to a lack of mobility in my hands, my parents bought me some sets to help make my hands work. My first set was the 6610 Gas Pump, and this set changed my life forever.



William with Mr. Kjeld Kirk Kristiansen at Skærbæk FanWeekend



Shawn's Life on Mars minifig

HBM: Which was the first minifig of your collection?

LLG: I think my first minifig was Jan Beyer. He gave me his Employee minifig in Ballabio 2009, when these kind of figures were still not as available as they are today.

SS: R2-D2 from the UCS X-Wing Fighter.

WW: Jan Beyer

BAZ: My very special minifigures are certainly those of LEGO Employees. I think my first ones were of Camilla and Henrik from the MINDSTORMS Team when I met them back in 2010 at my first LEGO World event.

HBM: What was the reason to start collecting them?

SS: If I knew that I could possibly control myself. It is a disease and I must attempt to complete the collection at some point in my life. I am not yet coming to terms with the fact that I may not be able to get them all.



BAZ's NASA Minifigure

special people they will have their own personal minifig, and if you can get one from them it means you have had 'special' contact with them, like meeting them at a LEGO fan event, or having a workshop with them or a personal meeting! Each of their minifigs stores very special memory in it.

HBM: What is your main source for special minifigs?

WW: Organising or attending LEGO fans events / workshops / meetings, as LEGO User Group Ambassador.

LLG: I have two main sources. The first one is meetings and interviews I have with different LEGO departments and employees. It's great to see how happy the employees are when they offer you their minifigs. The second source is the fan community. I have established links with several people around the world, and I usually trade minifigures with all these people (some of them are included in this article).

BAZ: Being fortunate to attend events such as LEGO WORLD Copenhagen or WRO or FLL Championship, I get to meet some LEGO Employees and sometimes they have some of the very special business 'cards' in their pocket! But all of my special minifigs I managed to get through networking over the years.

SS: Bricklink, eBay and people on Facebook.

HBM: Which minifig do you like the most from your collection?

SS: The framed Life on Mars minifigure that went to the International Space Station

WW: This is a very difficult question because I really love all my collected minifigs. I love them all! And each of them has a different story behind it! It is my own experience! Like Kjeld Kirk Kristiansen and Jørgen Vig, which I got in 2014 LFW, face to face. Or like the LEGO house worker version I got in 2016 in SFW Monday activity. Or like Tormod, which I got in 2013 in his office.

If I needed to choose one as my most-liked minifig from my collection, I would choose Jan Beyer's one. He was the CEE team manager supervising Asia at that time and the first foreign manager I met in Hong Kong. With his caring and support for the LEGO fan community in Hong Kong, we had a highly developed relationship and the LEGO fan community environment has changed a lot in recent years. He also invited me to attend the LFW in 2013 and truly opened my mindset about LEGO exhibitions and the real LEGO culture. Of course, we had several great times during the years.

BAZ: I'm particularly fond of my Kjeld and Thomas Kirk Kristiansen minifigs. I think it's a big deal to have those as they remind me how far I've come since my LEGO set under the Xmas tree many years ago. I'm very lucky to have met Kjeld several times; he is an extraordinary man. In 2015 at the WRO in Qatar I had the honour to meet his son Thomas.

LLG: Well, it is difficult to choose only one. Of course, I like the first figure very much (the one from Jan Beyer). Actually I have three minifigures of Kjeld Kirk Kristiansen, which are a great reminder of the different times I have meet him. The same with many other employees and events.

BAZ: When you start getting those unique minifigs there is no doubt they belong in a class apart from any LEGO you might have laying around. I later received one from Tormod, Jan Beyer and Kevin Hinkle :) I Also started to collect minifigs from events or LUGs such as the very cool HispaBrick guy, the LUG Ambassador dude, our QUELUG mascot, Brickfête, CinéBrique, LEGO World event minifigs and so on...

LLG: After the first figure, I got a minifig from Skaerbaek 2009 when attending the event, and during the same event I was lucky enough to get my second 'employee': Mr. Kjeld Kirk Kristiansen. I think this unique minifig was the reason to start collecting. If I was lucky enough to get this fig, why not try to get more of them? After some visits to Billund and attending other events, my collection started to grow and then I couldn't go back :)

WW: As you know, in Asia we have few chances to contact or meet with the management-grade people from TLG. For



Shawn's Collection



William's collection

But perhaps the ones I most like are not official minifigures. They are my custom printed LEGO Ambassador minifigures. I was LEGO Ambassador on Cycles 5, 6 and 7 (Mar 2007 - Dec 2010) and also one year on LAN. It was one of my greatest times as an AFOL, and everytime I see them I can only show a smile on my face. Of course they are not the rarest or most special ones, but there is no minifig that stores more memories for me than those ones.

HBM: What are you most proud of regarding your collection?

BAZ: I call my collection LinkedIn LEGO Style ;) I'm very proud to have so many of these unique minifigs. I'm also very proud of my own created event prints as well as my collection of printed 2x2 tiles (on homemade 2x2 brick magnets).

I'm also proud to have convinced the owner of this site <http://www.minifigpriceguide.com/EMPLOYEES.0.html> to remove the default \$50 value on all LEGO Employee minifigs. I'm happy to see now "Not Sold Anywhere" instead of a price tag ;)

WW: Of course it is the LEGO Fan Weekend 10th year Anniversary minifig and the Skaerbaek Fan Weekend 1st Anniversary minifig. It is not easy for Asian AFOLs to attend a European fan event with flying for more than 12 hours from Hong Kong. It was truly a great experience when I first attended in 2013. Due to different types of building styles, the experience in LFW is totally different from the events in Asia. I was so surprised when I could attend again in 2014, hold a workshop, show my MOCs and get the great LEGOLAND train set as a 10th anniversary prize, although we had the news saying that TLG would no longer be organizing the fan weekend.

However, with the fans' passion and hard work from several people, the fan weekend transformed to become Skaerbaek Fan Weekend. Continuing with the culture, the AFOLs, the great MOCs, everything became better and greater! And this is a must-see LEGO fan event. I am truly proud that as an Asian LEGO fan I have attended the event from 2013 - 2016 and been a part of it.

LLG: I have a very decent collection and I don't really spend money on it. My collection is based on getting the minifigures directly from the source (employees, events and/or AFOLs), and also trading them. I only bought some of the LEGOWorld minifigures, and one fake version of Mr. Gold (I was not lucky enough to get it), but the \$40 I paid went to Creations For Charity. In the end, it was not a bad deal. So I am happy to have my collection 'almost' for free.

But coming back to my previous answers, most of my minifigures come with a story, and I am happy to have had many LEGO experiences which are condensed in several cases with some plastic mini-men. If my collection keeps growing in the next few years, it will mean I have met a lot of wonderful people with the same passion for LEGO bricks. What more can I ask for?



Marc-André Bazergui

SS: My favorite thing about collecting all of these minifigures is the research and the hunt that goes into finding all of them. So I am most proud of the figures that gave me the longest hunt to find. A few examples are the International Space Station figure mentioned earlier, Zach the Lego Maniac Minifigure and Lego Mr Gold.

#

Instructions: Freight Car

Model designed by Michael Pianta (scruffulous) using LDraw and MLCad.

Instructions created by Teunis Davey using LDD and Blueprint.

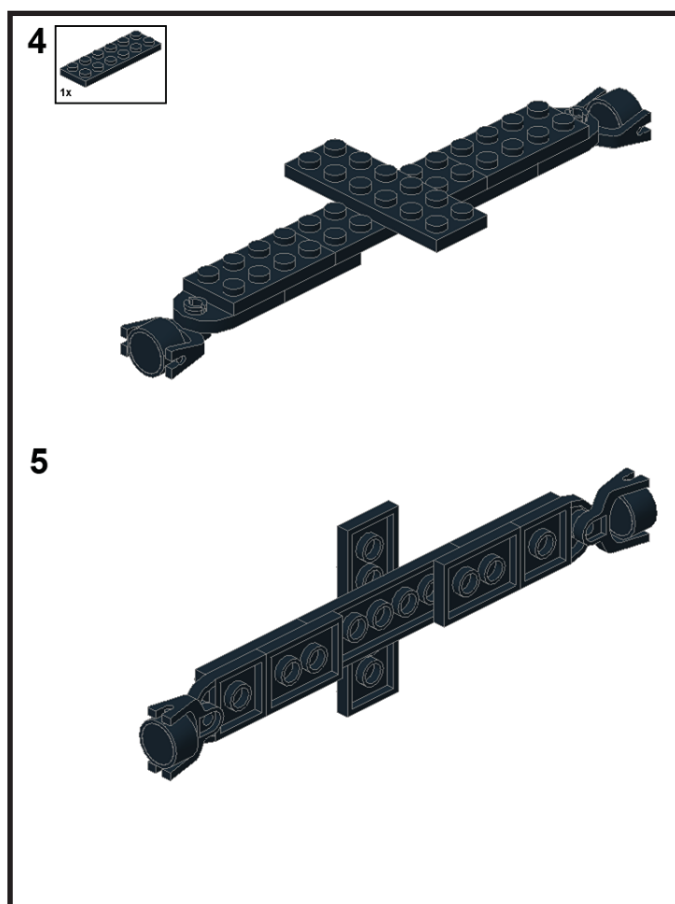
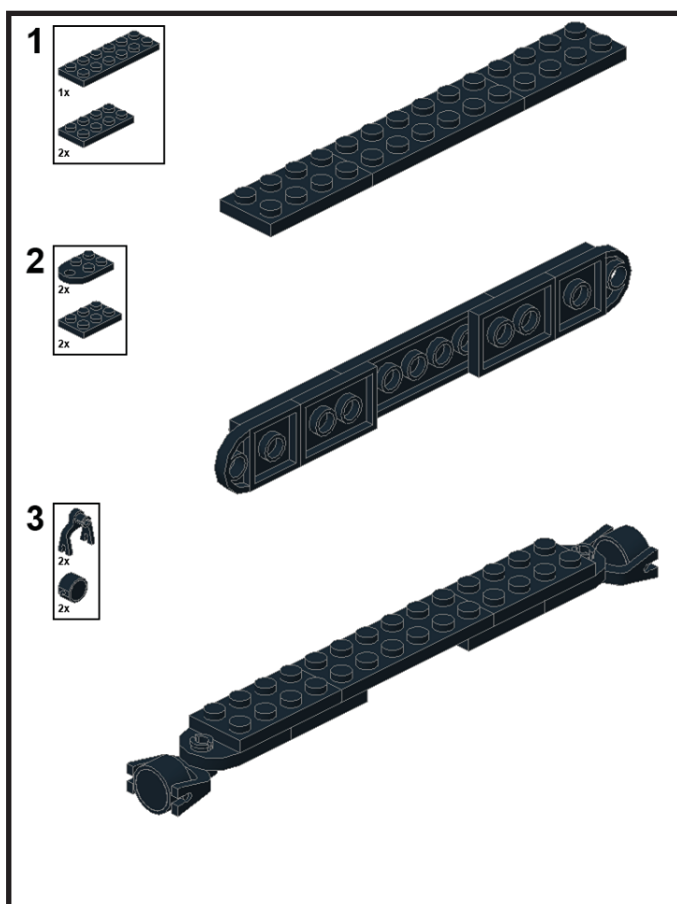
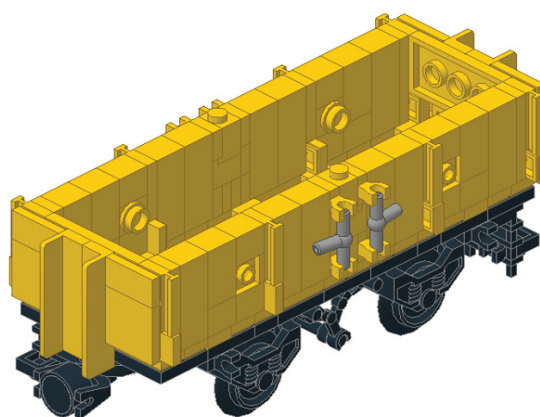
Teunis Davey and Michael Pianta (scruffulous) are foundation members of the Victorian Railways L-Gauge Modellers (VR>LGM, <https://www.facebook.com/TheSpiritofProgress/>). They both enjoy modelling Victorian Railways prototypes (that is trains from Victoria, Australia), as well as Victorian buildings and scenery, in LEGO®.

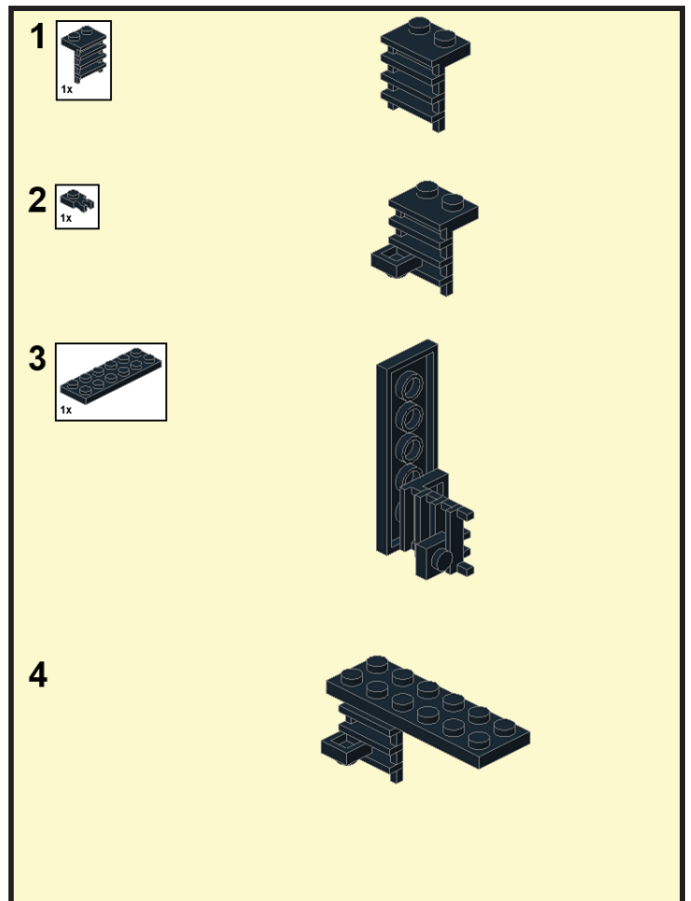
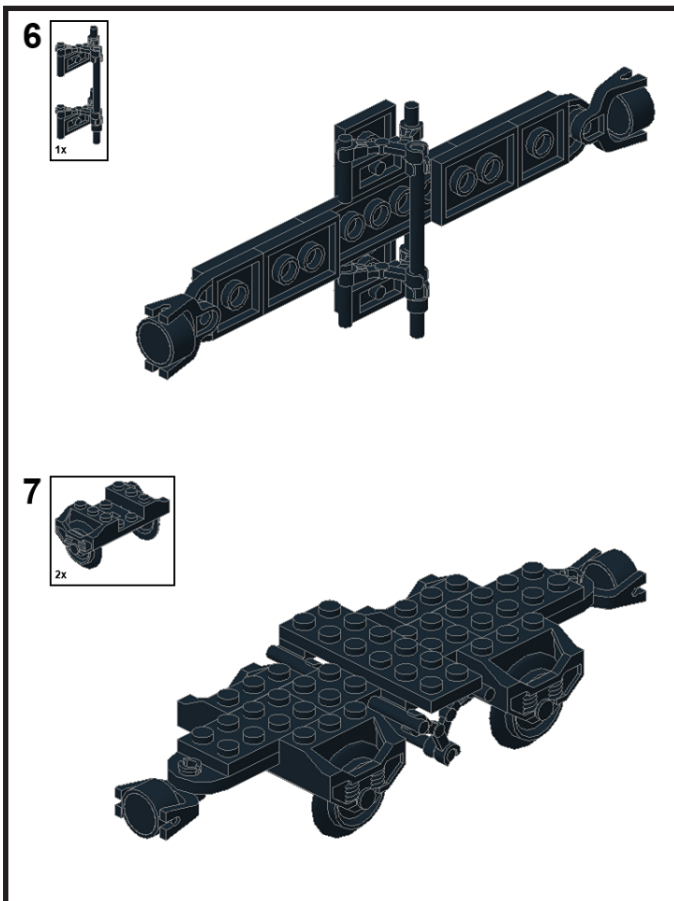
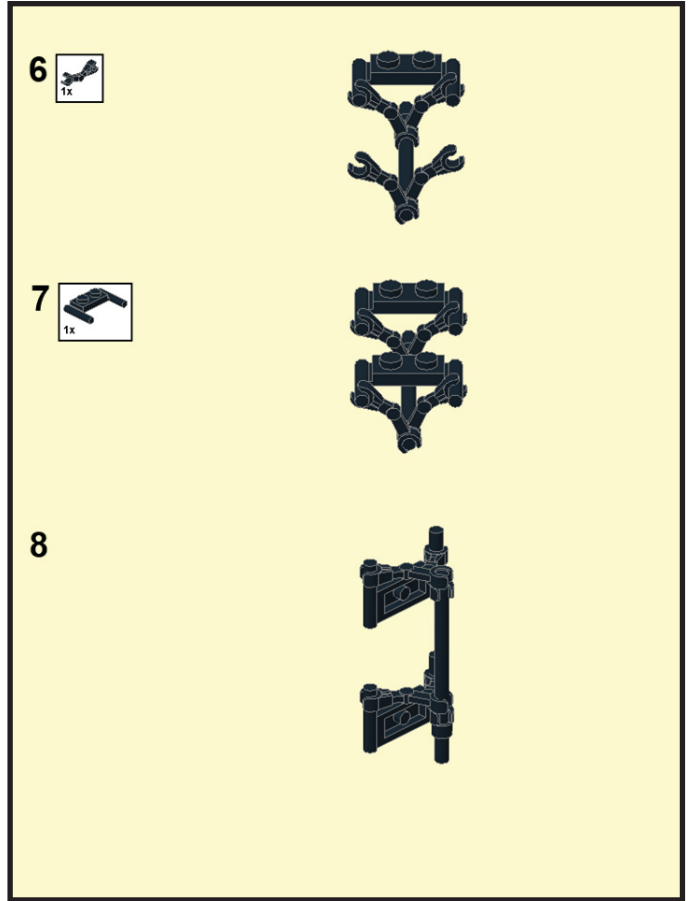
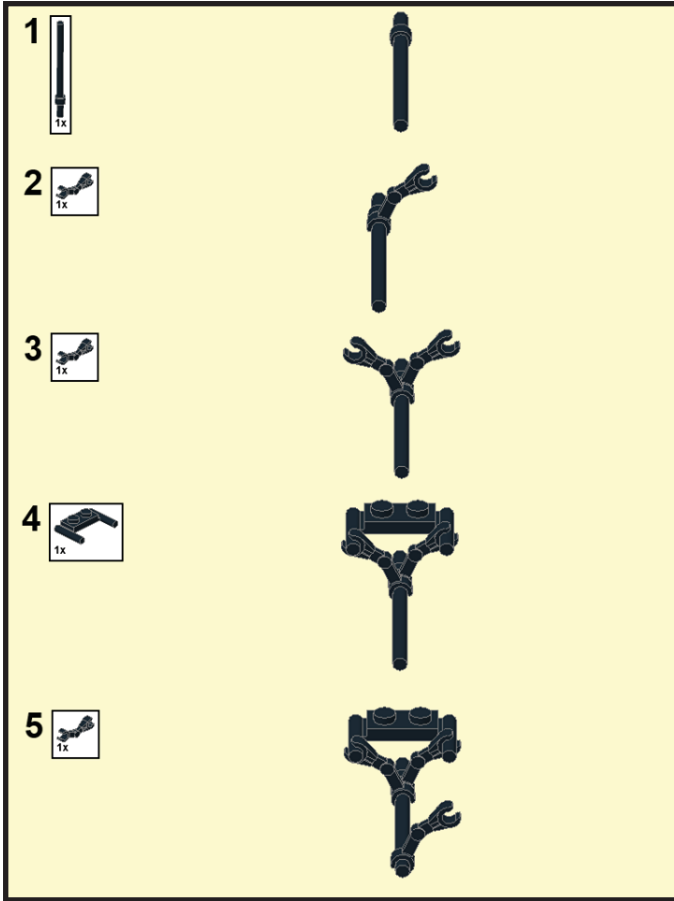
You can see more of their models in the following galleries:

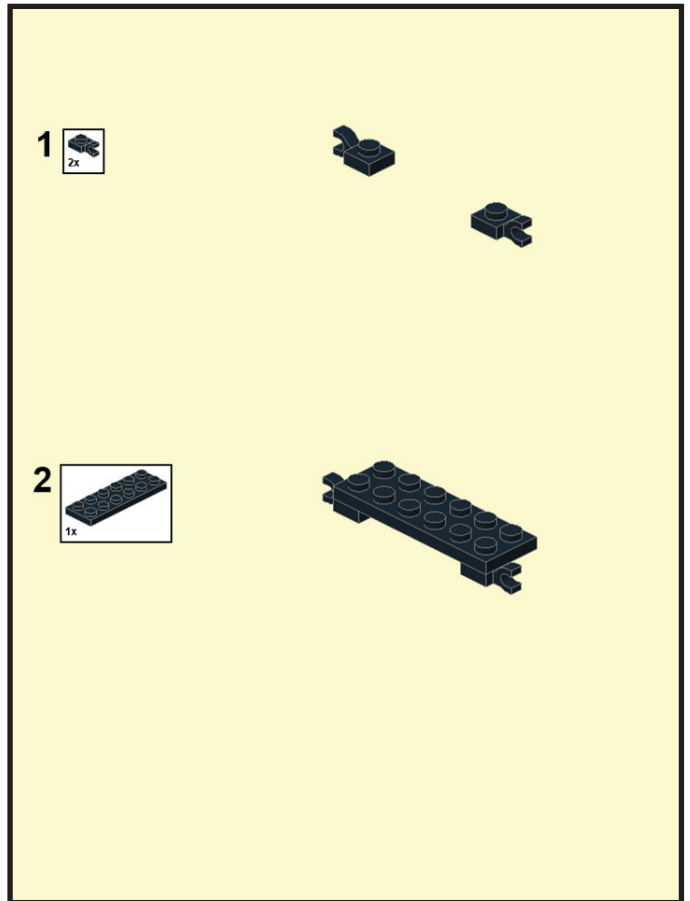
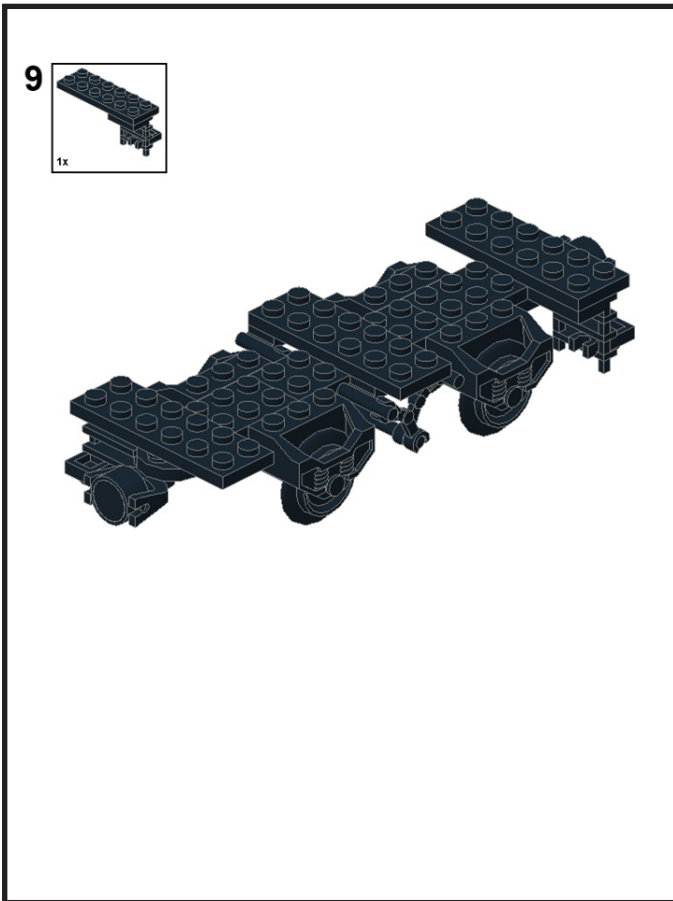
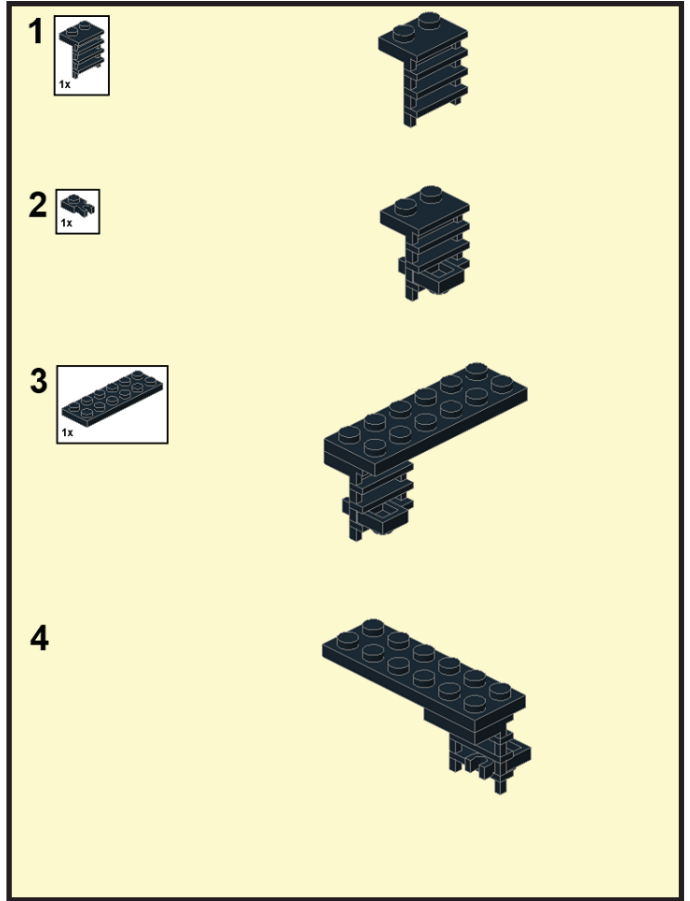
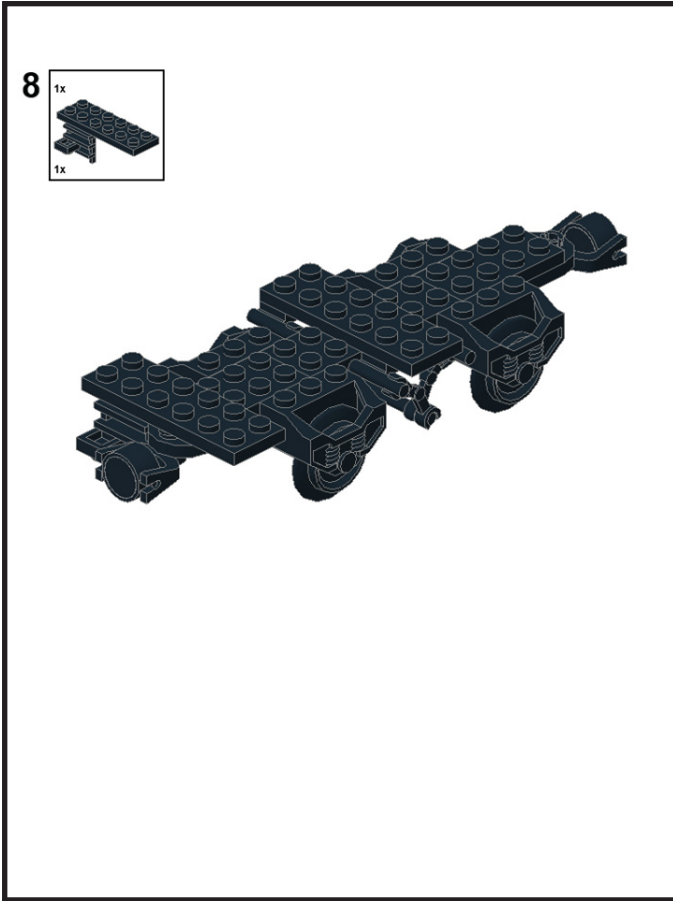
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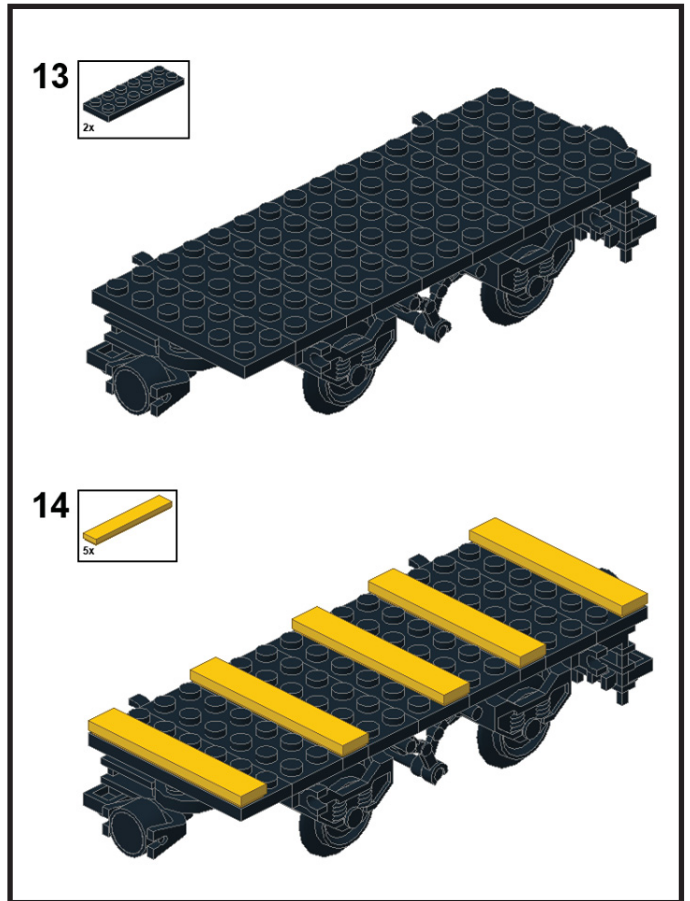
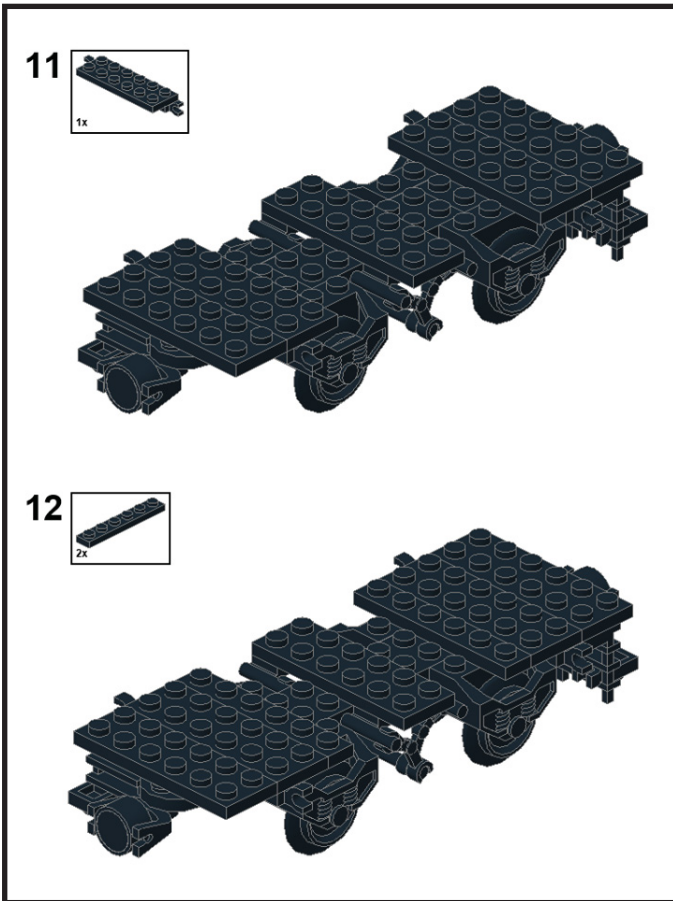
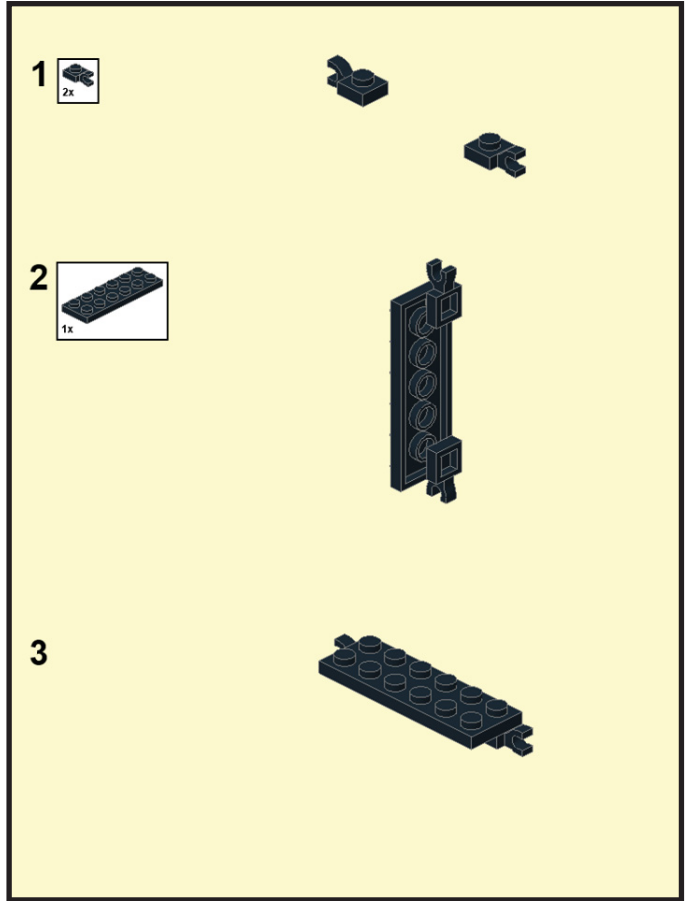
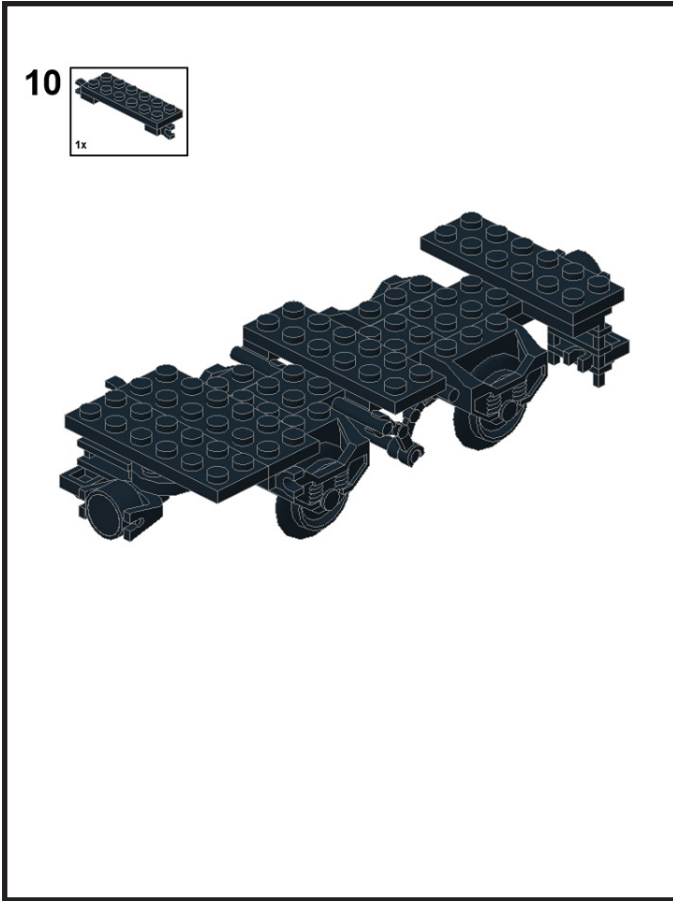
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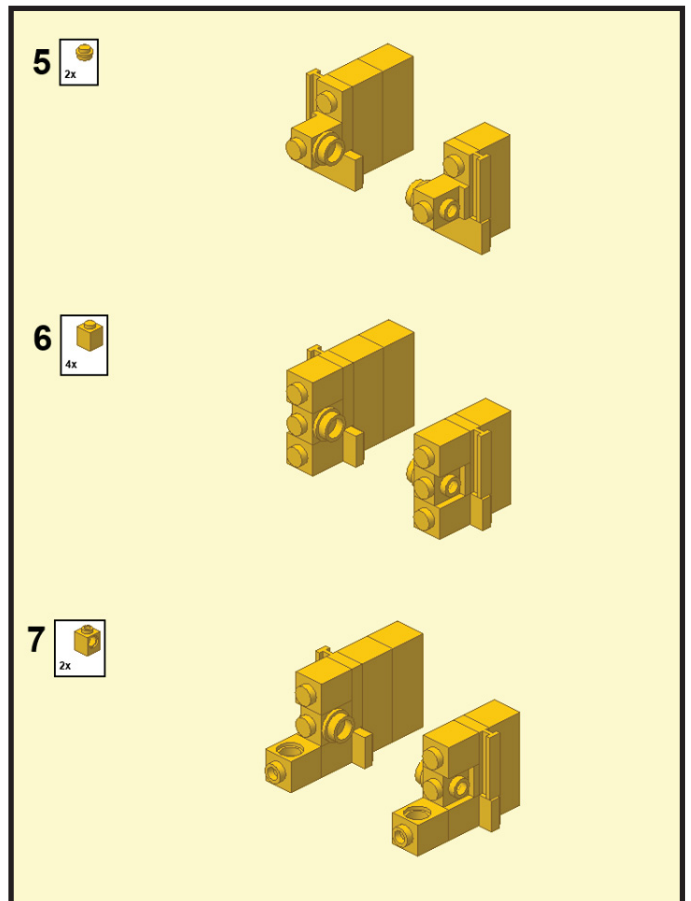
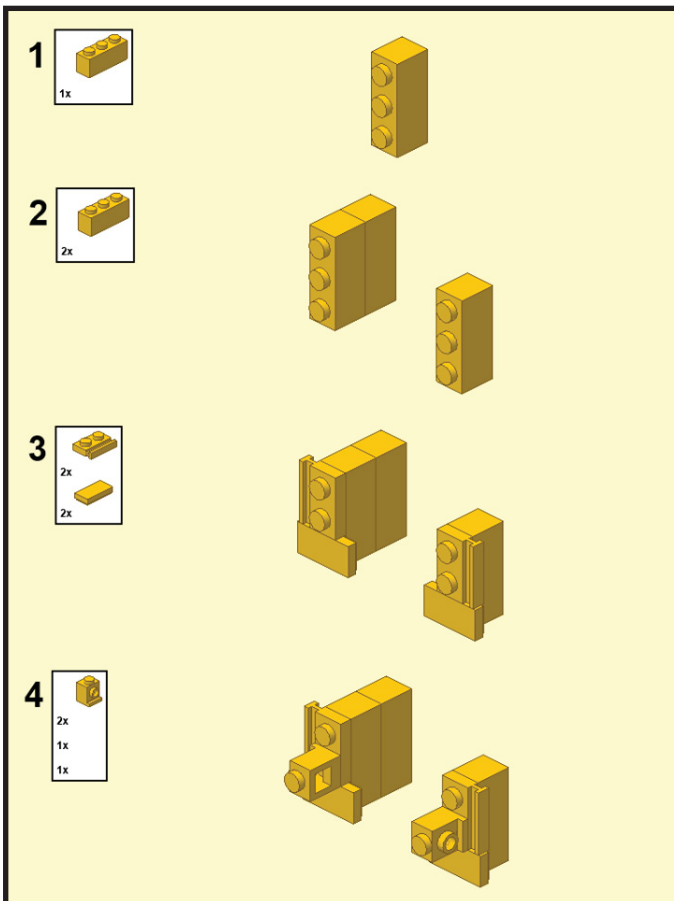
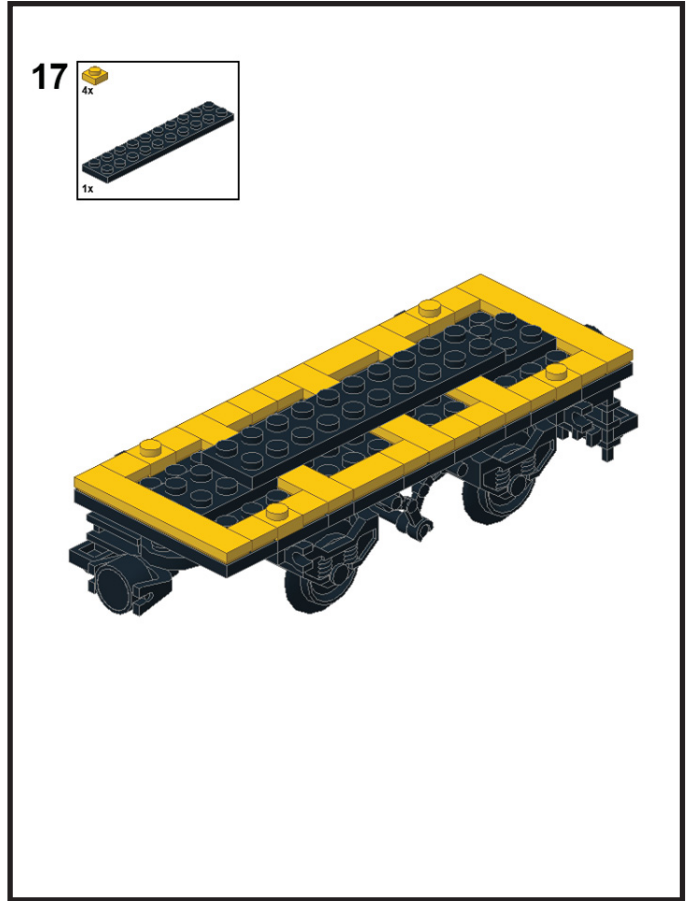
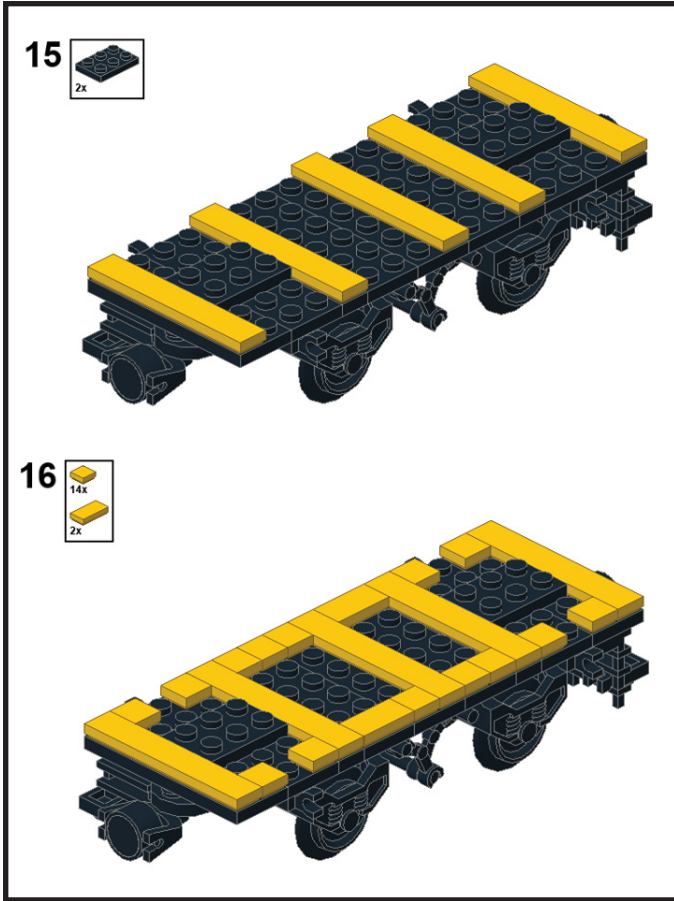
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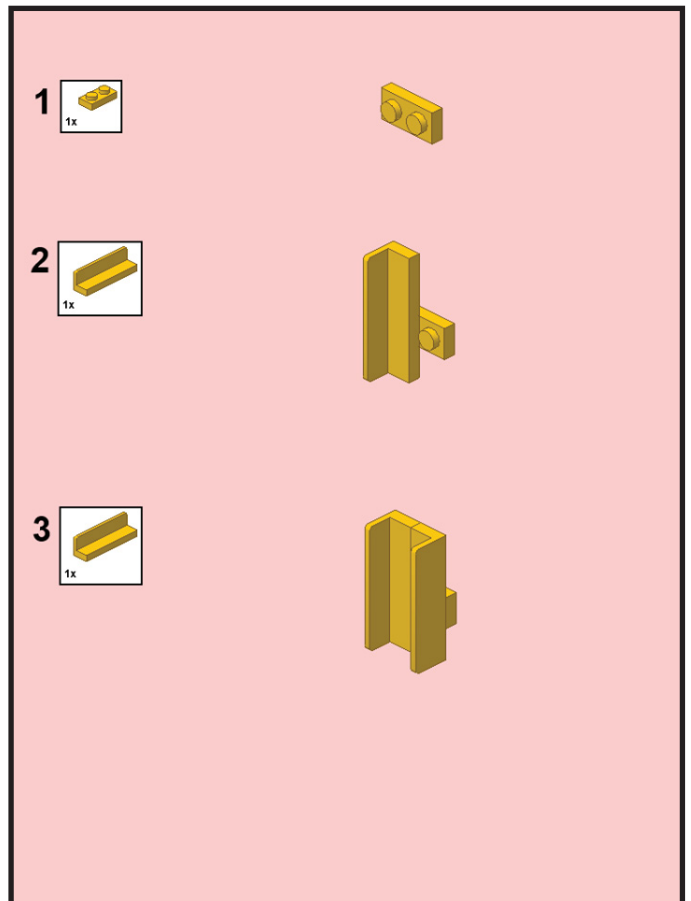
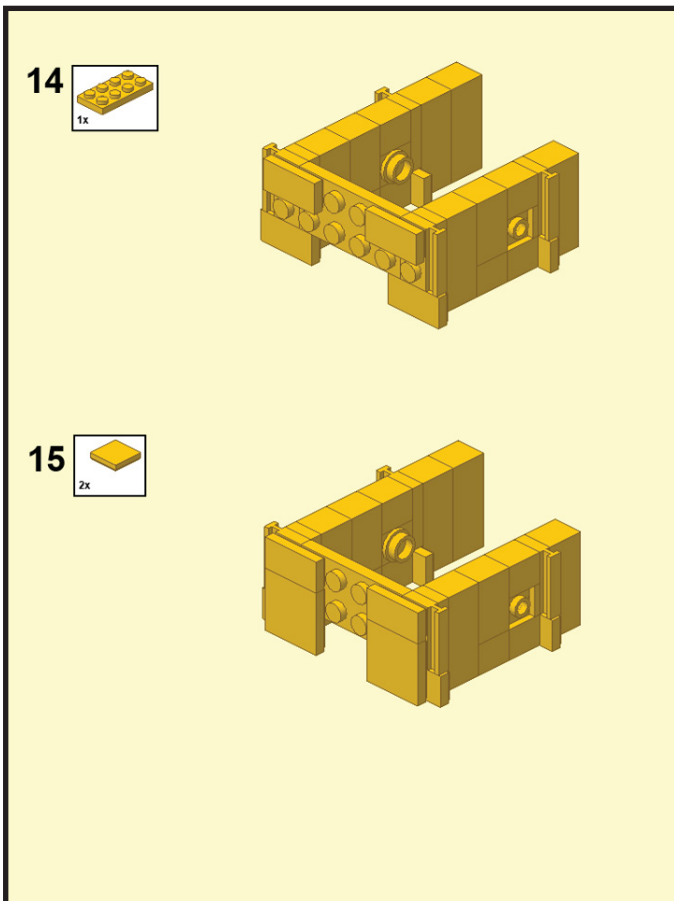
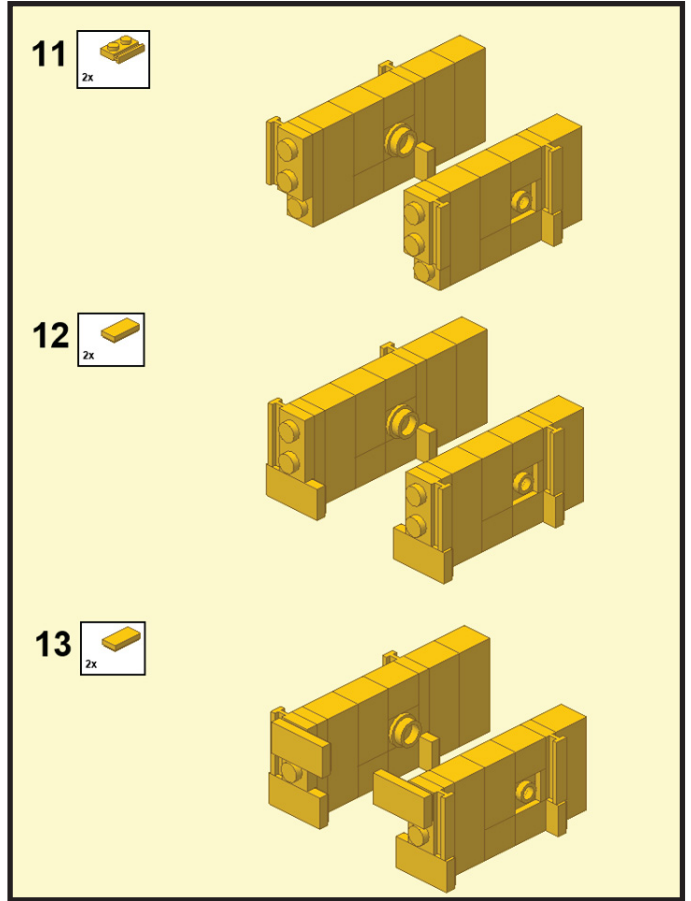
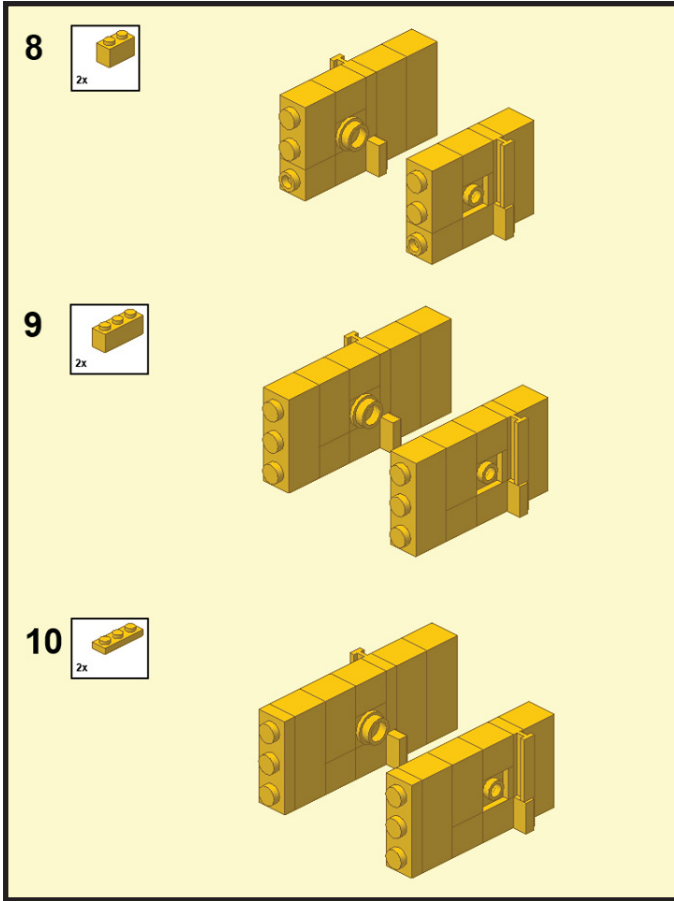


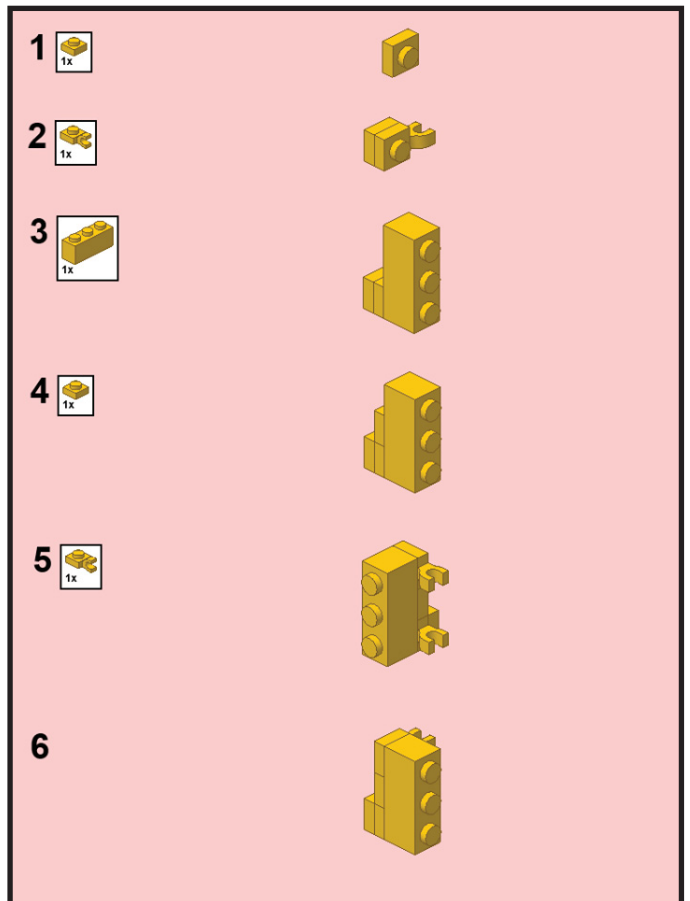
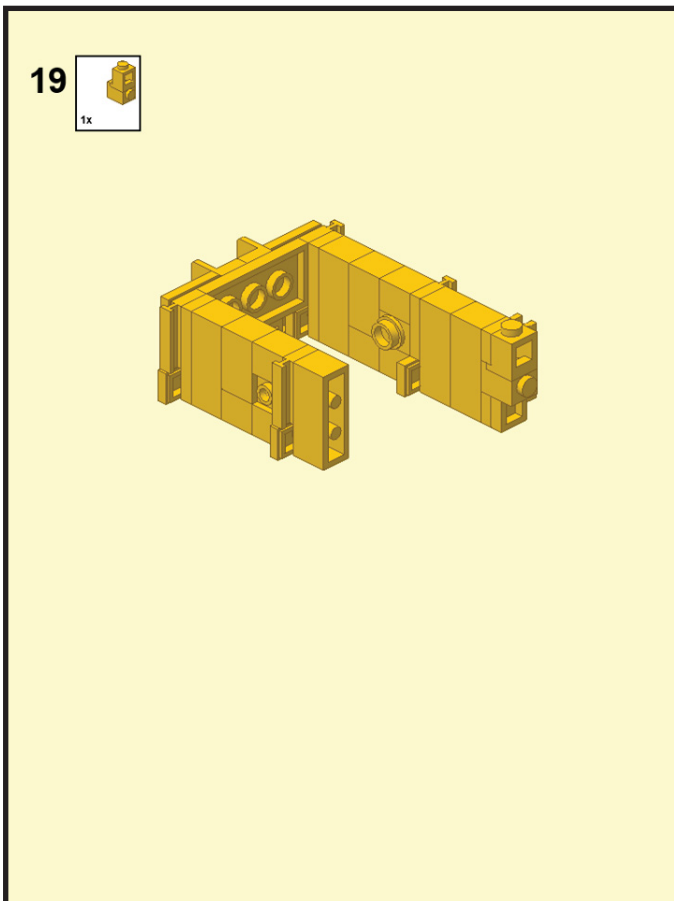
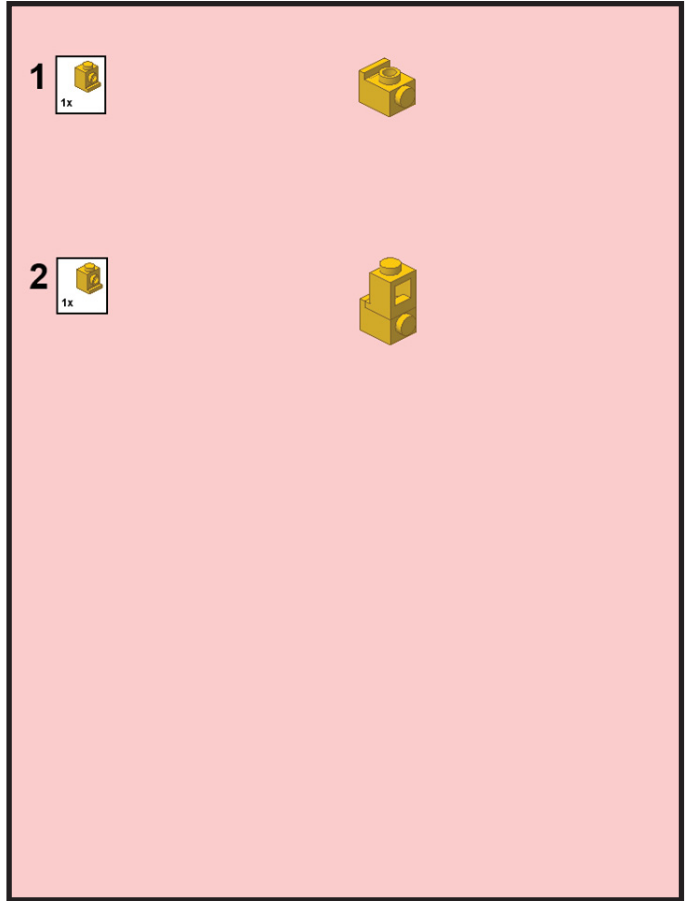
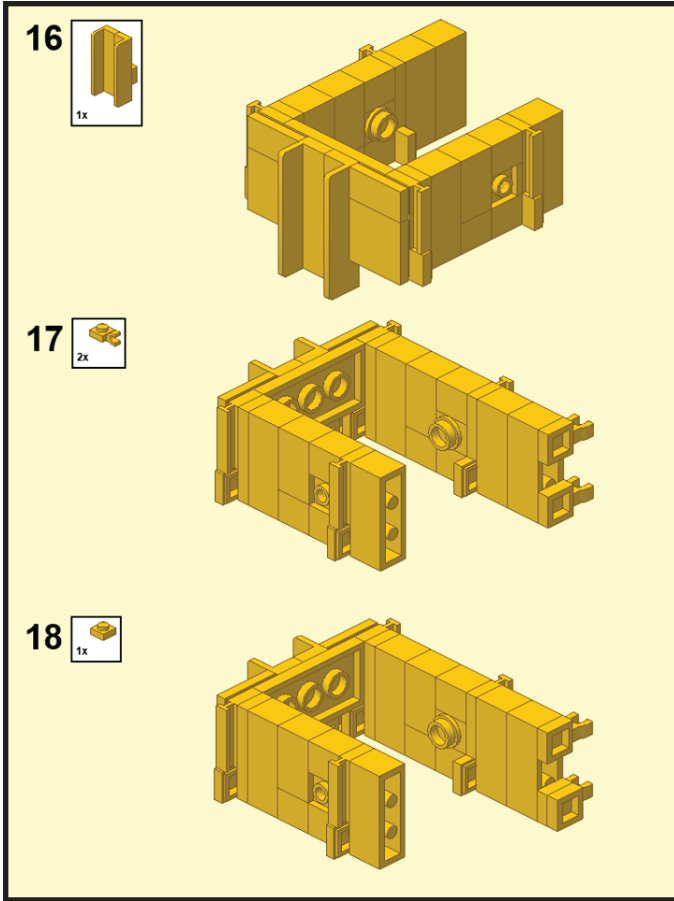


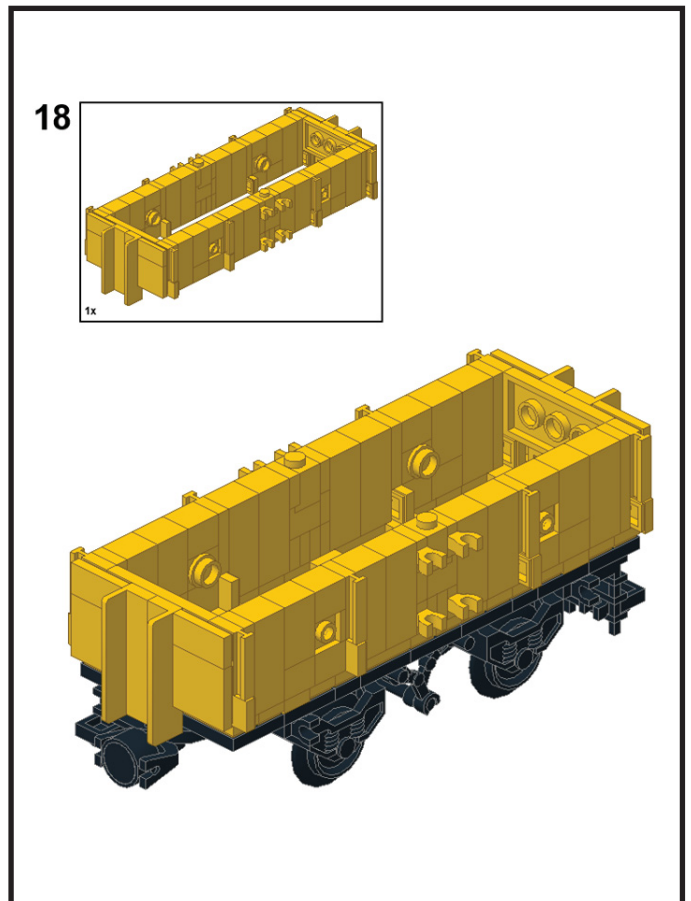
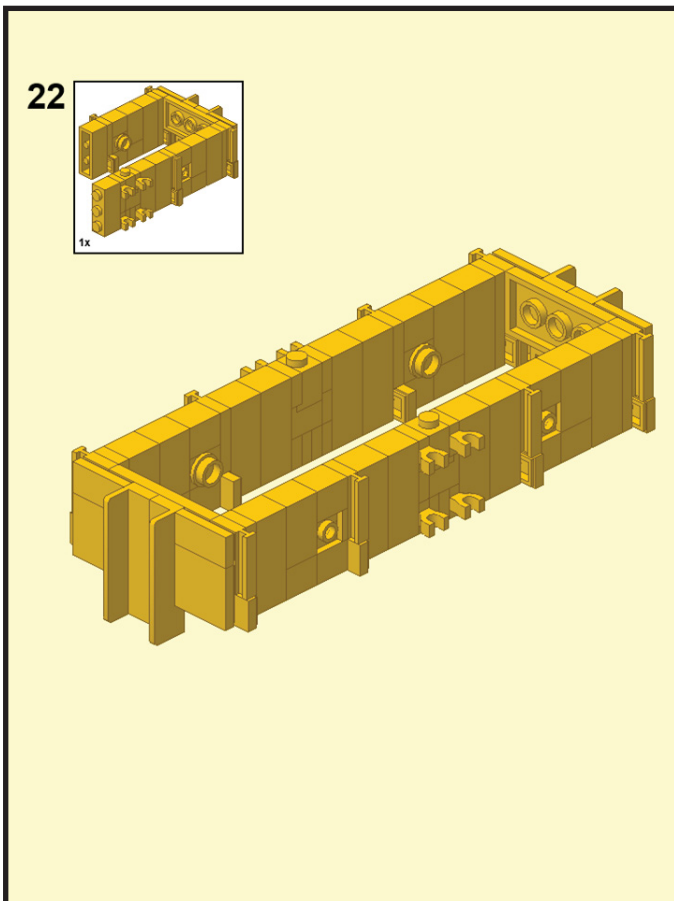
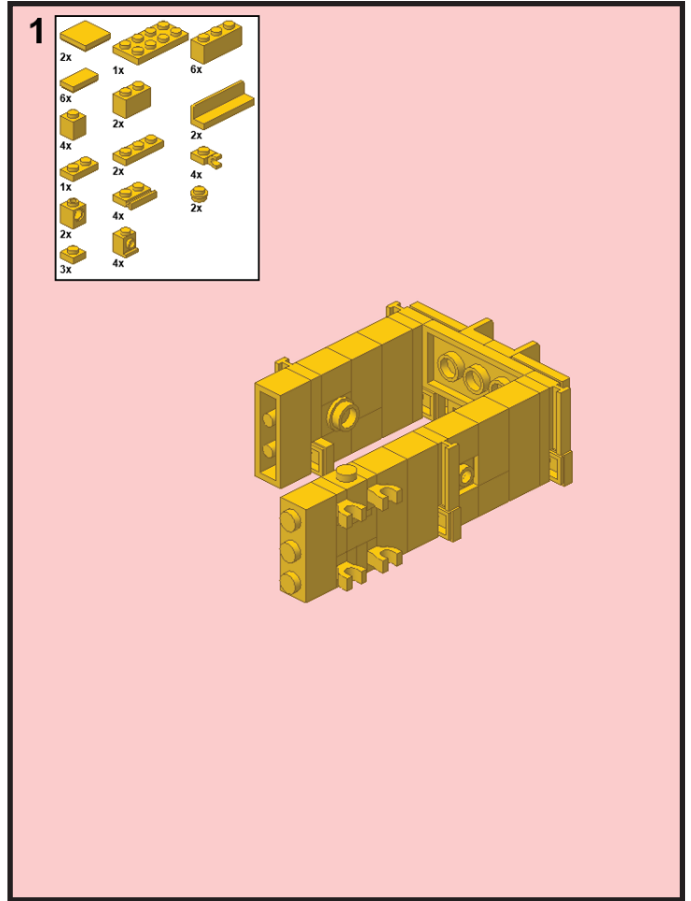
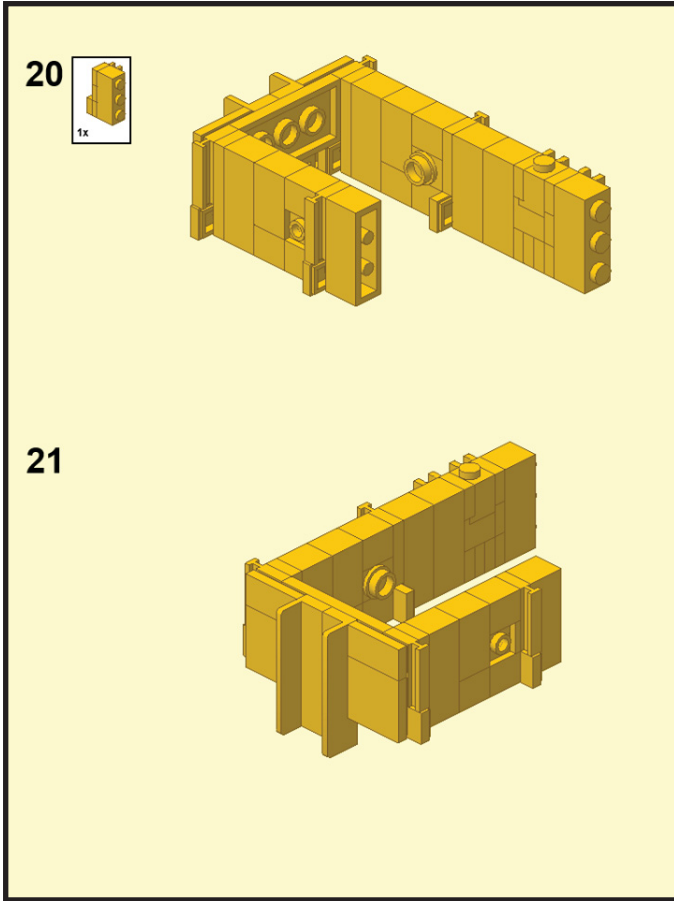




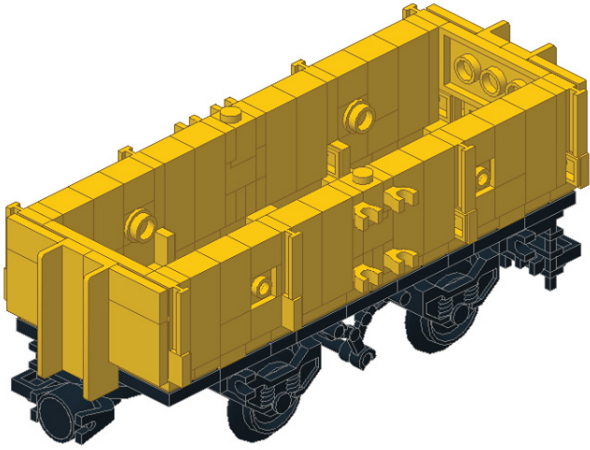




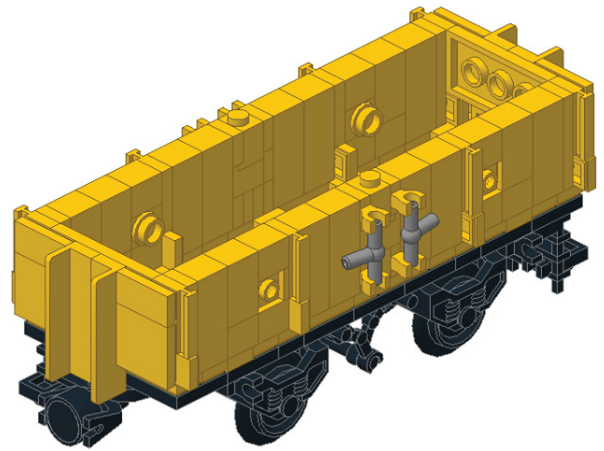




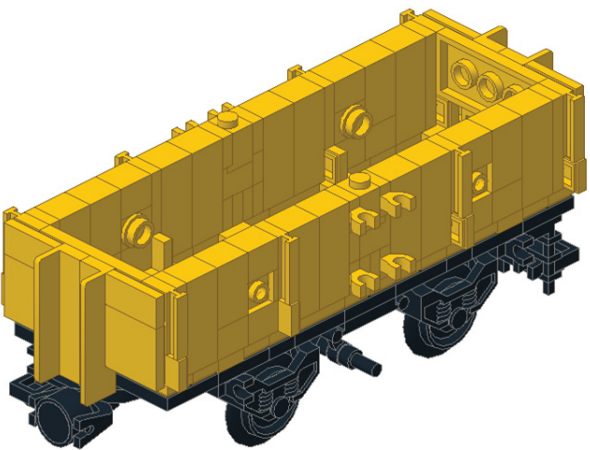
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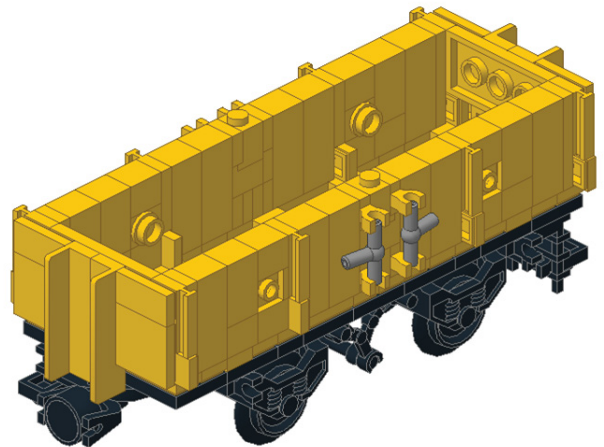
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RLUGs of the World: Asociación PIEZAS, Brickcanarias, HispaLUG®

By HispaBrick Magazine®

In our tour of RLUG from around the world, on this occasion we decided it was time to introduce the 4 official LUGs there are in Spain. We got in touch with them and these are their answers

ASOCIACIÓN PIEZAS

HispaBrick Magazine: What is the name of your LUG?

Our formal name is "Asociación PIEZAS", although we like to call ourselves simply "PIEZAS".

HBM: When and how did the idea to start a LUG come about?

AF: PIEZAS came about with the objective of fostering creativity and imagination through construction toys. We started in July 2013 as a group of AFOLs, although we didn't formally become a RLUG until 2016.

HBM: How many members do you have?

AF: Adding up adults (AFOL) and teens (TFOL) there are 25 participants.



HBM: Are you in touch with other Spanish RLUGs? And with RLUGs in other countries?

AF: We still haven't had the opportunity to establish close relations to other RLUGs in our country. However, we do have contacts with RLUGs abroad, especially with our Portuguese neighbours in Comunidade 0937.

HBM: Do you organise events or exhibitions?

AF: Of course! We have several events in the works for this year, like our participation in the Manga exhibition in Jerez and in Paredes de Coura Fan Weekend, as well as a temporary exhibition in Vera, Almería.

HBM: Are you in contact with The LEGO Company?

AF: Yes. We participate in the LEGO Ambassador Network through which we are in contact with employees of the company.

HBM: Is it easy to be a LEGO fan in your country? Are there advantages or difficulties?

AF: Neither yes nor no. There are more and more AFOL activities in Spain, but not at the level of some European cities. As a disadvantage, I would say that there is no official LEGO store in Spain.

HBM: Can you tell us any anecdotes related to your RLUG?

AF: Trips to events always give rise to anecdotes. I remember we travelled over 1000 km for an event and our car broke down 200 km before arriving. It was quite an odyssey getting the car towed to our destination with all the LEGO inside!





HispaBrick Magazine: What is the name of your LUG?

Brickcanarias (Asociación Cultural Brickcanarias)

HBM: When and how did the idea to start a LUG come about?

BC: In 2013, several AFOLs in Las Palmas decided to start the Asociación Cultural Brickcanarias with the main aim to bring LEGO fans living on the Canary Islands together. At the same time, the association provides us with a legal entity allowing us to interact with shopping malls public administrations, etc.

HBM: How many members do you have?

BC: Currently there are 35 active members, aside from users on the forum who exchange ideas and information, but aren't members of the association.

HBM: Are you in touch with other Spanish RLUGs? And with RLUGs in other countries?

BC: Due to our geographical location, we are somewhat isolated and barely have any personal contact with other RLUGs. A few of our members maintain relatively frequent contact with HispaBrick Magazine, and others were members of other RLUGs located on the Spanish peninsula until Brickcanarias was funded. However, our ambassador is in contact with other RLUGs through the LEGO ambassador Network (LAN).

HBM: Do you organise events or exhibitions?

BC: Yes, several times during the year. Our main exhibition is also called Brickcanarias. We organise it alternatively on a different island, once a year, which requires a big effort for all of us, since we need to travel by car and boat with our materials. Another event we are invited to each year is Comic-Can (the Canary Islands' comic festival). At the same time, we celebrate several exhibitions like the one you can visit in Ciudad de San Juan de Dios (a centre for disabled), next to its famous nativity scene or single theme exhibitions like Star Bricks which we will celebrate January next and many other events.

More and more entities ask us to do workshops for children in conjunction with an exhibition. They want the little ones to discover the infinite possibilities this building toy has to offer beyond simply buying a set in a toyshop.

HBM: Are you in contact with The LEGO Company?

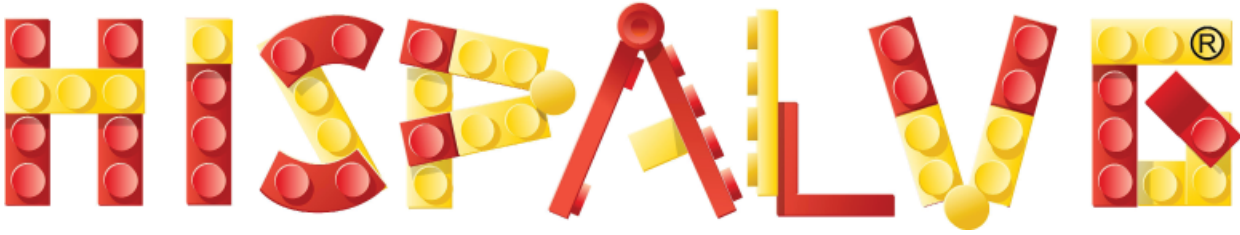
BC: Yes. Since we are an RLUG, we are in close contact with The LEGO Company and we count on their valuable support when organising our events during the year.

HBM: Is it easy to be a LEGO fan in your country? Are there advantages or difficulties?

BC: In our specific case, the difficulty doesn't so much lie in being a LEGO fan in Spain as with being on the Canary Islands. We need to constantly deal with logistical and customs issues when we buy materials and it isn't easy to have a personal relationship with other RLUGs due to our geographical location, which makes any traveling expensive.



Asociación para aficionados a LEGO®



HispaBrick Magazine: What is the name of your LUG?

HispaLUG, Asociación para aficionados a LEGO

HBM: ¿When and how did the idea to start a LUG come about?

HL: In 2006, a 23-year-old LEGO fan decided to create a forum to be able to communicate with other fans and share experiences, ideas, creations, etc. Shortly afterwards there were contacts with LEGO and the company recognised the LUG.

It wasn't long before the first personal meetings were organised and in 2007, we were able to celebrate the first LEGO event in Spain.



HBM: How many members do you have?

HL: Currently there are 56 members. On the forum, there are 1300 registered members and some 500 of those are regularly active.

HBM: Are you in touch with other Spanish RLUGs? And with RLUGs in other countries?

HL: Yes. There have been some timid contacts, as many of their members were (or still are) members of HispaLUG, but unfortunately relations aren't as good as could be expected. We wish to keep working in that direction. On the other hand, we have good communication and relations with LUGs in other countries, like Comunidade 0937 in Portugal, and members of both our LUG and theirs attend events organised by either LUG.

HBM: Do you organise events or exhibitions?

HL: Yes. We have a large annual event at a national level called HispaLUG Expo. In 2016, we celebrated its 10th edition. The whole RLUG participates in the HispaLUG Expo in which, aside from dioramas and sets we have workshops,

competitions and activities for the public, with the intention of transmitting our passion for this "toy" to children and adults, as well as showing its many possibilities and applications.

In addition to this big event, we organise smaller events on a regional level: exhibitions, workshops, collaborations with town councils... Always with the same objective: to reach children and adults and grow our RLUG.

Important events in this context are CatBrick in Catalonia, BrickSur in Andalucía and NorteBrick in the north of the peninsula.

HBM: Are you in contact with The LEGO Company?

HL: Yes. We are in contact through the LEGO ambassador program.

HBM: Is it easy to be a LEGO fan in your country? Are there advantages or difficulties?

HL: Is it easy to be a LEGO fan in your country? Are there advantages or difficulties? It's a little more complicated than in other countries since LEGO isn't as popular here as other toys are and if you are not in a LUG, it is hard to find people with the same hobby. That is one of the main reasons why we organise events: to show our hobby, whenever possible, and get to the people who want to share, learn and grow and don't have, or don't know, the tools and the channels that can help them.

If you add to this the difficulty to get exclusive sets, compared to neighbouring countries, as well as the absence of an official LEGO Store (which makes it harder for fans to contact each other) there are quite some difficulties, but we are still very excited to share our hobby just like we have done from the very first day.

HBM: Can you tell us any anecdotes related to your RLUG?

HL: The most recurring anecdote is when an adult LEGO fan, who lives his hobby in a certain solitude, discovers HispaLUG and realises there are many other fans of their same age and it isn't just kids who play with LEGO.



HispaBrick Magazine® Event 2016

By HispaBrick Magazine®



On December 3rd and 4th of 2016, we celebrated yet another year of our magazine's event-the 5th annual HispaBrick Magazine Event- a meeting of LEGO fans held at the mNACTEC Terrassa in Barcelona. In addition to different activities offered to the public, there was also a large LEGO exhibition.

As has become tradition with the HispaBrick Magazine Event, there was no lack of collaborative dioramas based on the MILS System: the battle of Hoth from Star Wars and the medieval diorama are two that stand out most. Some new dioramas were added this year (also using the system). These include the Circuit de Catalunya and the Far West, we hope that they continue to grow in the coming years as both are really amazing builds. Of course, there also was a large CITY diorama complete with a gigantic Bender, the Helm's Deep and the battle of Endor. There was also an area for Classic Space, Architecture unique buildings and UCS Star Wars sets.

In singular constructions we were able to create different minion characters, they were created by car_mp and the Alien by the Arvo brothers. Also, once more, MINDSTORMS and Technic were the favorite attraction for both children and adults.

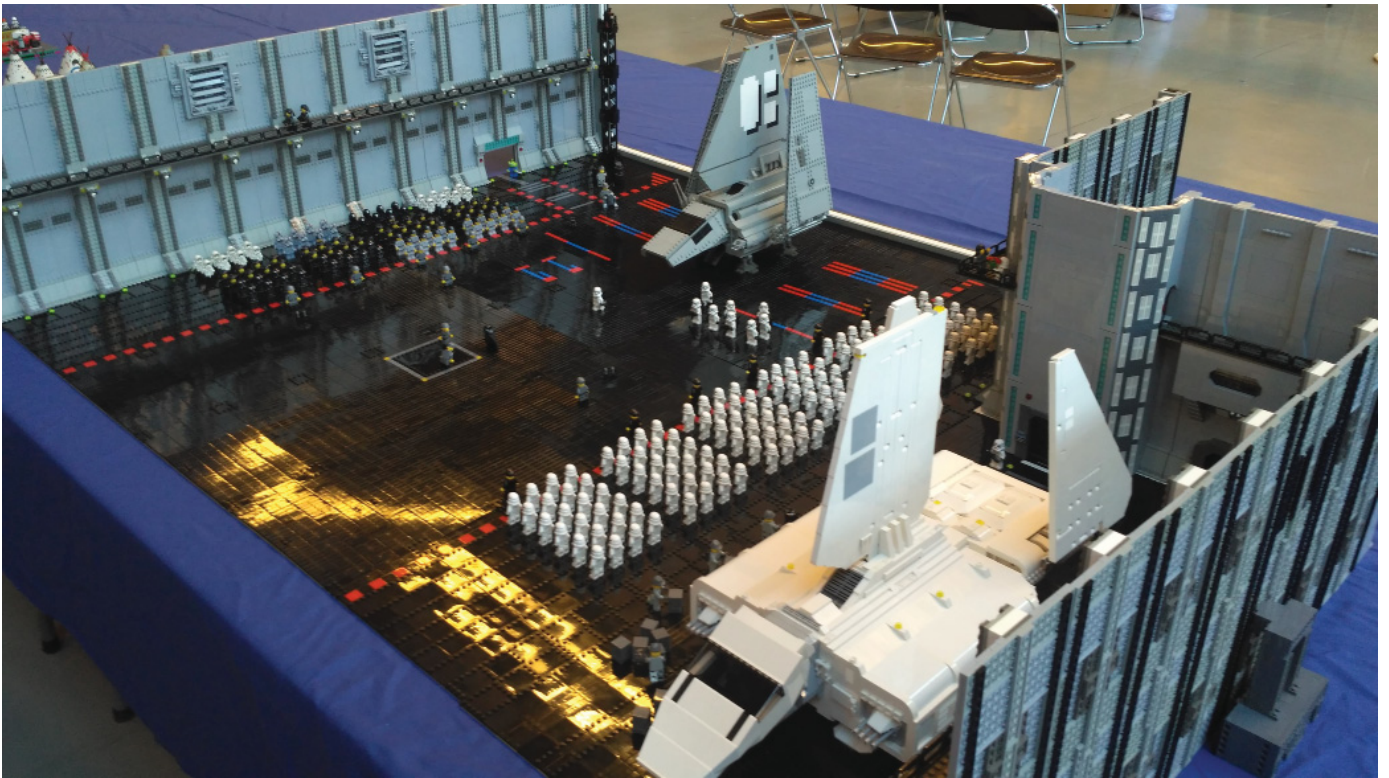
At this year's event we were able to get the whole team who have helped HispaBrick over the years together which was without doubt one of the most exciting parts of the event. In addition, we had the pleasure of having EuroLUG, LUG Brasil and Jan Beyer (Community Manager at LEGO System A/S) present. We also thank the visit and help from members of other communities like HispaLUG.

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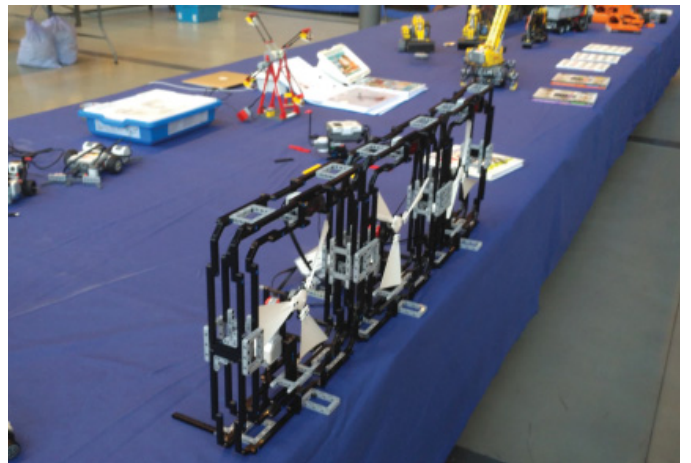
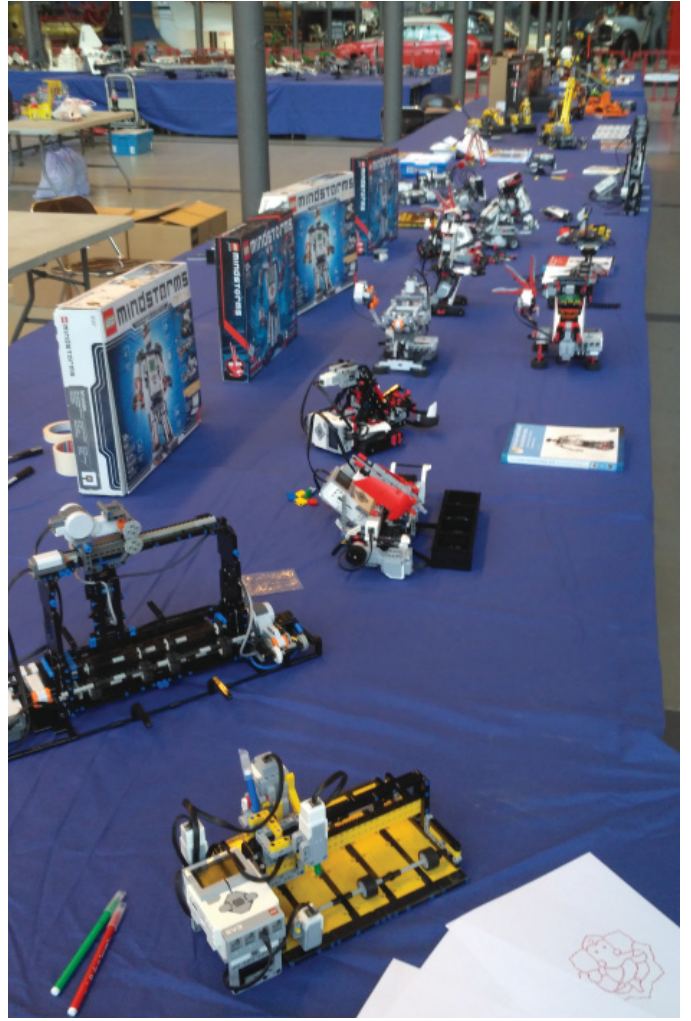












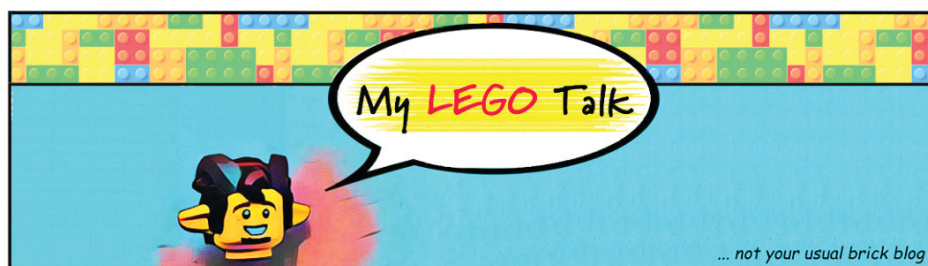


Reviews

Mysterious robbery on the Assembly Square

By Edita Stechova (Lego Girl)

Pictures by Edita Stechova (Lego Girl)



www.mylegotalk.blogspot.com

HOME REVIEWS TOP10 LEGOLIFE MORE ABOUT ME Q

HispaBrick Magazine: Name?

Edita Stechova: Edita Stechova

HBM: Age?

ES: 27

HBM: Country?

ES: Czech Republic

HBM: What do you do for a living?

ES: I work in a private equity firm as an analyst with focus on real estate investments. Practically, most of the time I deal with numbers. However, when I was a student I worked as a guide on large ships in the Caribbean and as an au pair in France, as travelling is my big hobby.

HBM: When did you first start building with LEGO®?

ES: Not a long time ago. I discovered my passion for LEGO thanks to the Collectible Minifigure Series. I bought my first LEGO in March 2016 and then I quickly became addicted to this perfect world made out of LEGO bricks.

HBM: When did you start to write your blog and why?

ES: I started 6 months ago. LEGO is my big joy and writing a blog about it is something that makes me happy and fulfilled. Since I have started to write the blog I have had the chance to meet some major LEGO enthusiasts who know a lot about LEGO, and listening to their stories is what enriches me and interests me. I discovered quite quickly that there is a real life behind bricks and I want to share as much as possible of this positive content on my blog. I am trying to do my blog a bit differently, which means I am not focusing on the latest news, latest releases etc.

I want to show people that there is a large and diverse community in the LEGO world, so I am writing articles about the creators of LEGO products, old LEGO set themes, artists who are responsible for the most beautiful LEGO builds, and much more. I am also writing reviews in a form of fairy tale. You can check all of it on my blog (www.mylegotalk.blogspot.com) and if you like, leave a comment or contact me by email to tell me what you think about it or what content would you like to see. Comments from the readers are the most valuable feedback for me.

In addition to the blog we opened an Etsy store with LEGO jewelry - [Bricz.Art!!](https://www.etsy.com/shop/BriczArt)

Once upon a time there used to be one beautiful Modular City, and as the square is the heart of every town, it should come as no surprise that it was the Assembly Square where everything happened this time. And what did actually happen? Make yourself comfortable and listen to the story of the Mysterious Robbery in the famous bakery located right in the Assembly Square of the Modular City...



The Assembly Square was well known among locals for being the home of three famous retail units – a bakery, a florist's shop and a cafe. All of them were open daily and there were many locals around all the time. The bakery was famous far and wide for their freshly baked bread and amazing cakes.



People from the outskirts of the Modular city also came here to shop or just to window shop, gawping at the marvels made out of sugar and chocolate. Hence it is no wonder that people were often queuing together in front of the bakery.



The owner of the florist's shop, a charming elderly woman, was always very kind and her bouquets were stunning and beautifully arranged. It was said that the flowers from her shop were not only fresh and fragrant but also magic. Once you smell them, you completely forget all of your worries.



And what about the Café in the Assembly Square? I was there once and it was the best cup of coffee I've ever had. With a cosy interior, this café is the perfect place to curl up and escape for a while from the busy square.



Let's get back to the robbery, as that's what I'm going to tell you about today. As I said, the Assembly Square was always busy with people walking around the square all the time.

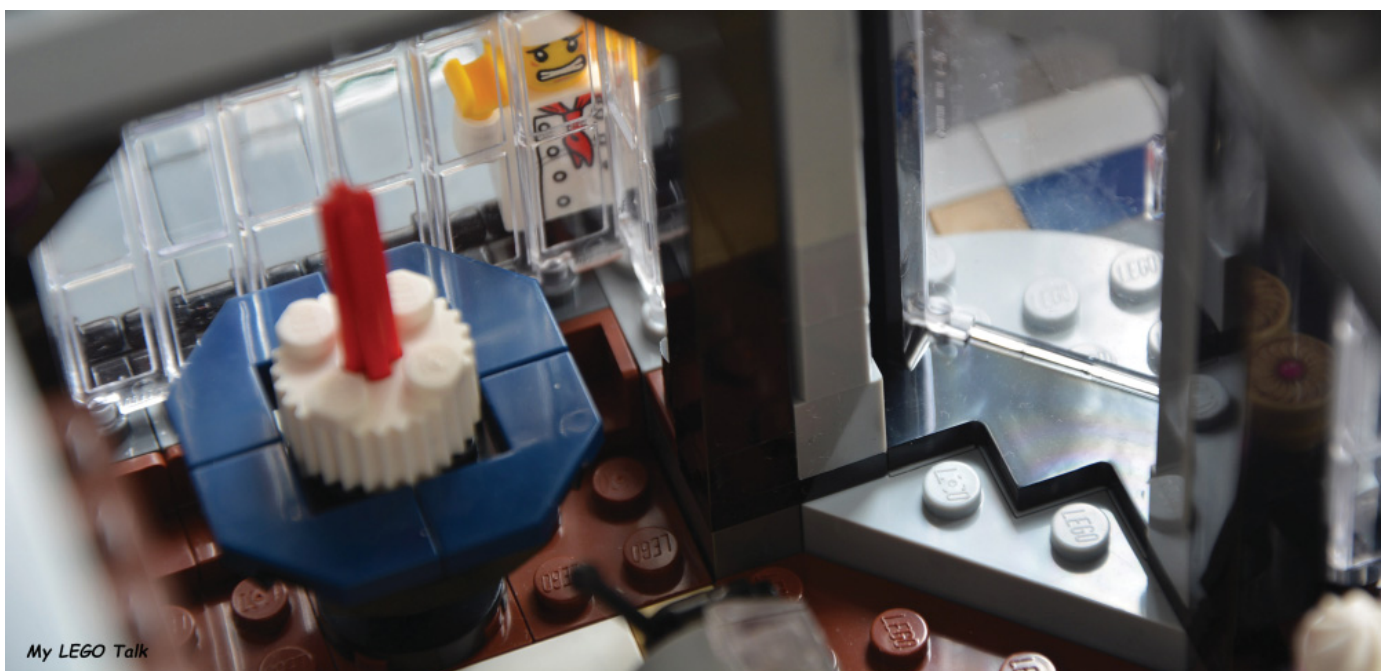


It was therefore especially weird that the robbery just-so-happened to occur in broad daylight during lunchtime while not one of the locals noticed a thing.

Someone was so rude as to take advantage of Mr Baker's regular break for lunch in the Parisian restaurant, and broke into the bakery and stole a giant anniversary cake. It is important to emphasize that it was not just any cake. It was a masterpiece that was daily admired and still on view for locals in the bakery window.



The cake was a gift for a girl who lived just two floors above the bakery and was a huge fan of LEGO. Her husband, a music teacher, ordered the cake to celebrate the 10th anniversary of his wife's favourite LEGO theme – the Modular Buildings. It was supposed to be a surprise for her when she comes back from a LEGO exhibition in two days! And now the cake was gone.



Only the locals and residents of the Assembly Square knew about the cake and so they immediately became the main suspects. As no one confessed to the robbery, Mr Baker could no longer watch the unhappy music teacher and asked for help from a famous detective who runs his own detective's office on the other side of the street. The detective was famous for his logical reasoning and the ability to solve even the most perplexing crimes and mysteries that occurred in the Modular City. The detective asked every resident of the Assembly Square to gather on the square, and then carefully examined the alibi of each person.



There was no way that the café or florist owner robbed the bakery at midday, as they were both busy with their customers. Neither could the dentist have done it, because he had a patient in his dental office right at midday.

So rather than pinning down their alibi, the detective focused his attention on a young lady dressed as a ballerina who looked very nervous compared to the others. However, he very soon found out that it was not the robbery making the young lady nervous, but rather her first ballet performance to be held that night in the Palace Cinema.



The music teacher who has his studio in the same building even confirmed that she was training hard for her big night without break from early morning till afternoon.

Therefore, the ballerina could not have stolen the cake, even though it would have been a really catchy headline: 'Ballerina stole giant cake as she could no longer resist smell of sugar', don't you think?" quipped a freelance photographer, the last one whose alibi was to be challenged by the detective.

"What did you do around midday?" asked the detective. It was evident that the photographer enjoyed the question as he proudly explained to others that he was photoshooting the whole day with the stars of the LEGO Batman Movie for the famous HispaBrick Magazine.



None of them could have broken into the bakery and stolen the cake. "Is this really everyone who lives in the Assembly Square?" the detective asked a bit suspiciously.



"Wait, Mr Detective, there is someone we forgot... someone who lives behind the bakery; an old abandoned dog. I call him Watcher because he sits all day long in a chair in front of my café watching what's happening in the square. I also noticed that he spends quite some time with the White Trio – that's what the three neighbouring villain dogs call themselves," the café owner whispered so that no one else could hear.

"A dog? Why not?" paused the detective. "Could someone please show me where Mr Watcher lives? I think that we've got the thief."

They caught the dogs right in the act while dividing the stolen cake into four equal parts.

The music teacher could no longer hold his emotions back and shouted, "Get away from the cake! It's not yours; it's my wife's cake!"

The dogs escaped as fast as they could into their nearby hideaway and waited to see what was going to happen.



The cake was completely destroyed and drooping. There was no question of giving it in this form as a gift. Mr Baker was very sorry for the music teacher and promised to work hard all night to bake a new and even nicer cake for his wife. So he did as he said.

“Villain dogs,” grated the florist owner, “we have to be more cautious next time”. They left the cake on the ground for the dogs and everyone went their way.



That day Mr Baker did not open the bakery. Not that he wanted to rest, but rather exactly the opposite. All day and night he worked on the new cake. In the morning of the next day, when the first sunrays appeared, the cake was done. Mr Baker proudly opened his bakery and waited for his first customers. Everyone who came in could not believe their eyes. It was a new cake, and it was just as beautiful as the first one.

The music teacher appeared soon in the front door of the bakery, and when he saw the cake he thanked Mr Baker many times and took the cake to his apartment full of LEGO. “Here you’re safe, my friend,” he whispered and he couldn’t wait for his wife to return back home.

Once he saw her approaching the square he ran to greet her. He gave her the cake and told her what happened with the first cake while she was at the LEGO exhibition. She was so amazed and impressed that she could barely even talk. “It’s the most beautiful cake that I’ve ever been given, my love. Thank you!”

So in the end everything turned out well and things returned to normal. Mr Baker kept baking his delicious bread and cakes, the florist kept selling magic flowers and the café owner kept serving her fantastic coffee.



And what about Mr Watcher? He kept sitting comfortably in his favourite chair in front of the café and was watching life out there in the Assembly Square. Locals thought that he felt guilty, but he had already secretly thought of another plan. What will it be next time? :-)

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Review: 75144 - Snowspeeder

By Iluisgib

Images by Iluisgib and LEGO® System A/S

Set: Snowspeeder

Set number: 75144

Parts: 1703

Contains: 2 minifigs and a plaque with the characteristics of the model

Price: 199,99€ / \$199,99



The new Star Wars UCS set, which will hit the stores on May the 4th, recovers the essence of these great ship models which fascinate us so much. They are detailed models, almost always from the original trilogy, that make a great addition to our display cases with the most incredible and eye-catching designs. The second UCS Snowspeeder is an excellent model, with some interesting functionality and aesthetics that visually take us straight to Hoth.

The assembly is divided into 13 stages. The instruction book is quite thick, and it is really nice that it's a single book. In addition, there is a sticker sheet. Of course, there are stickers (35 of them). Most of them are justified, although in some cases I would have preferred to have the images printed on the element. If you are not extremely careful when you place them, the whole model looks off. But we'll get to that part later.

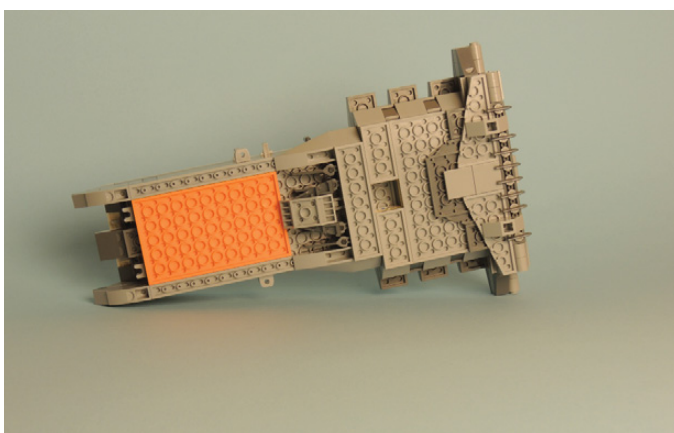
In the first stage the rear part of the chassis of the speeder is built.



The second stage adds the front of the chassis.

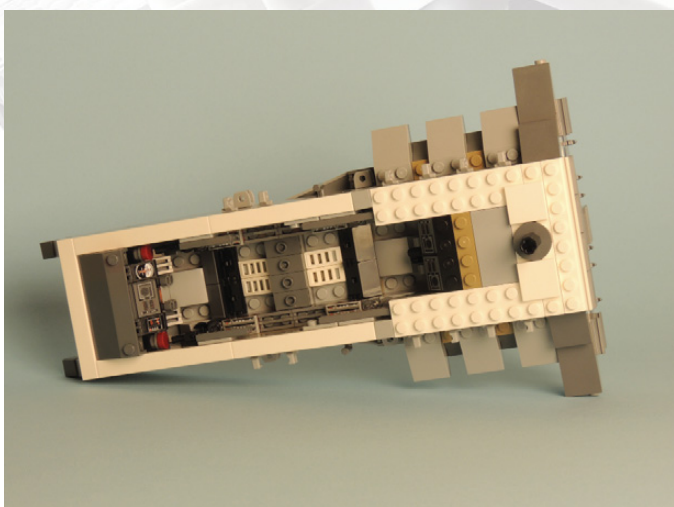


These two stages aren't very interesting since basically you are building infrastructure, using a lot of parts to provide rigidity without adding much to the aesthetics. Anyway, there is a point here which demonstrates the level of detail that went into the design of the model. In the rear of the chassis there are ice skates (minifig accessories) serving as small spoilers to redirect the air.

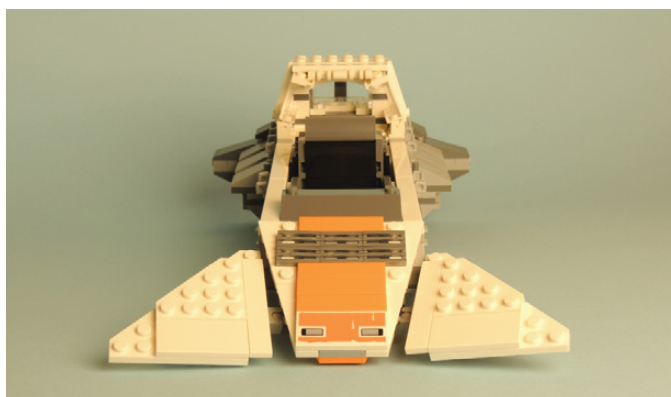


This attention to detail is always present during the construction of this model and it is what I like most when building UCS sets.

With the following stage the model starts to look like a Snowspeeder. The cockpit starts to take shape, and you can see the control panels for the pilot and the gunner. There is also a small mechanism allowing you to aim the rear harpoon launcher with a small joystick inside the cockpit.



After that you add the rear of the canopy, which is fixed to the chassis and the front, together with two appendages that are fixed to the wings. At this stage these appendages don't have a fixed position since they are connected with ball-joints. In stages 9 and 12 these are connected to the spoilers.



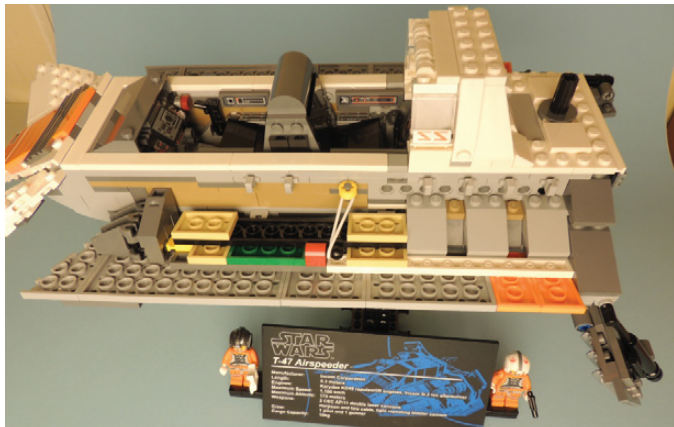
At this stage in the process we take a break to build the support stand for the model. The stand is black, made with Technic elements, and is partially foldable. Just like in other UCS sets, there is a plaque with the characteristics of the model.



This is also when the two included minifigs appear: a pilot and a gunner. Except for the helmet and the accessories (a laser pistol and pair of binoculars), the two minifigs are identical, sharing the same head, torso and legs.

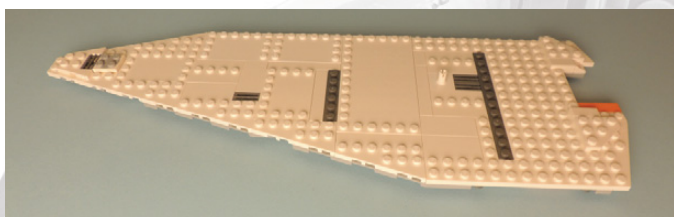


Next up you build the bottom of the sides. Once the model is finished, these are connected to the sides with ball joints. In order to keep them at an angle of approximately 30° there are a couple of rubber bands connecting to the side of the chassis. The two rear spoilers are also added to the model at this point. These spoilers are foldable, and are integrated into the fuselage when retracted.

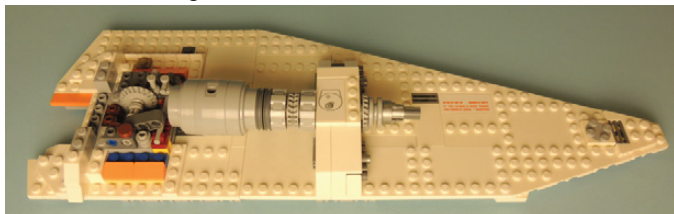


Stages 7, 8 and 9 serve to build the left side. The process is repeated in stages 10, 11 and 12 for the right side. Each side is built over three stages since this is the most complex part of the build.

First you build the spoiler. A series of plates are strategically placed to provide the right shape and required rigidity. As you can see in the image, the construction is totally flat and a combination of white and orange is used. There are no outstanding details in these stages, as those are all added later.

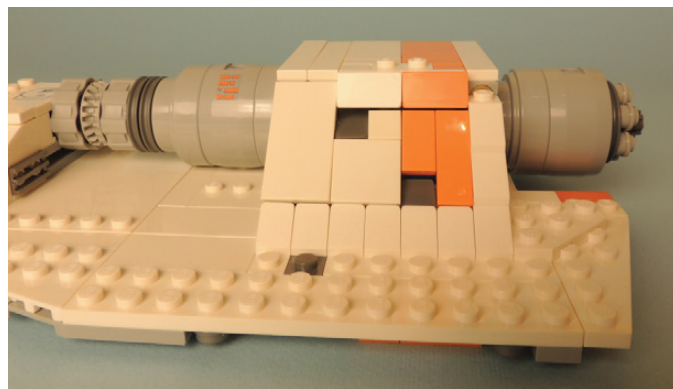


One of the most recognisable parts of the Snowspeeder is the engine over each wing. The engines of course provide propulsion, but their casings also include the flaps used to steer or brake the ship as necessary. There is a small mechanism for lifting these flaps by turning the exhaust nozzles of the engines.

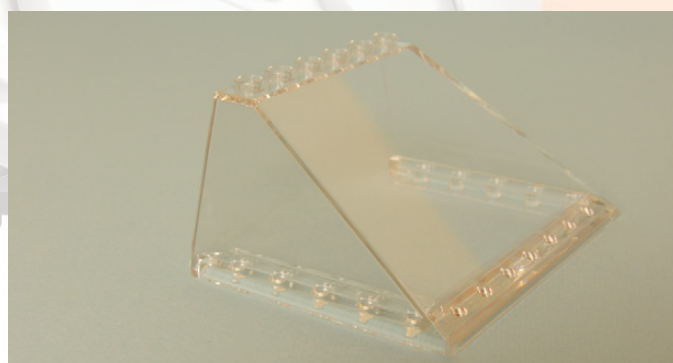


The cannons are placed on the wings, with one on each motor casing. This is quite a long construction that extends beyond the front of the wing. The cannons are set at a slight inward angle in order to concentrate the shots of both cannons towards the same point in front of the ship. I found the way this

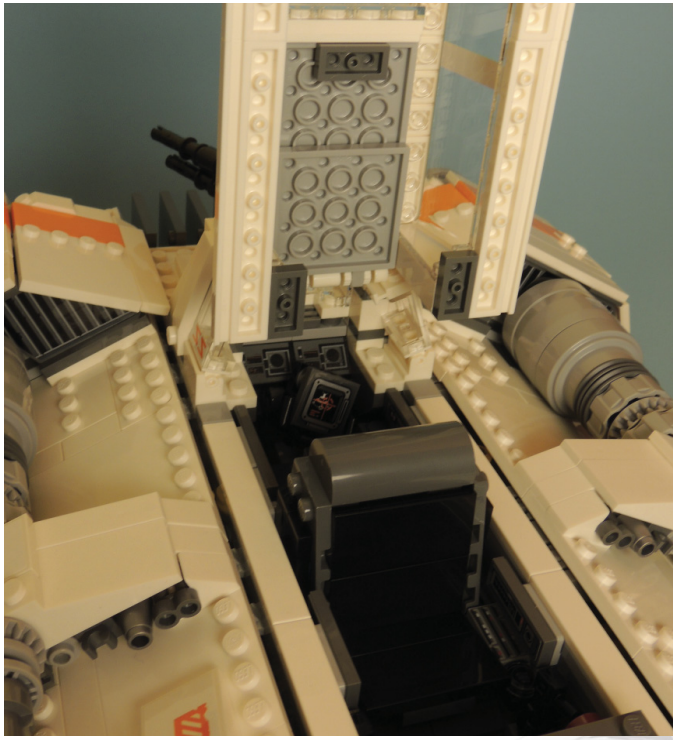
slight displacement was achieved to be quite interesting since you hardly notice it. There is just enough slack in the parts to allow for this small adjustment without compromising the model.



After adding both spoilers only one stage is left to complete the model: the canopy. This stage includes the only new element in this set, which is a new front windshield piece.



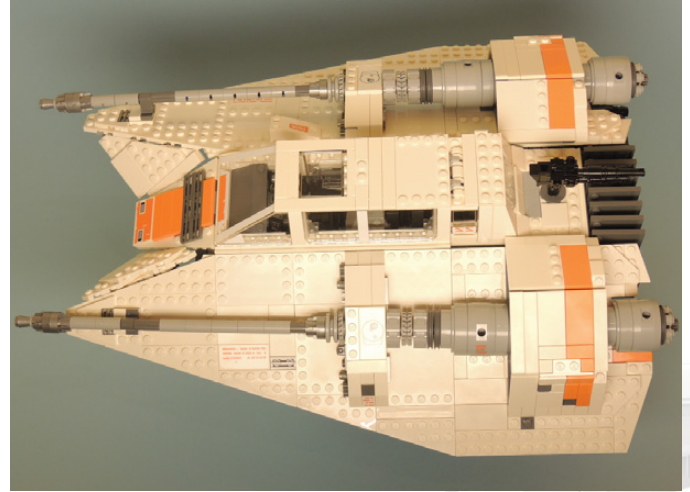
Several stickers need to be placed on this element, and at this point I believe there should have been printing rather than stickers. In my case I have been applying stickers to LEGO models for many years, and I have a certain technique for putting them on right. Someone with less experience could easily ruin the model by not applying these stickers correctly. The windshield element is placed between the side windows and the beams that provide rigidity, and is connected to the fixed part of the cockpit. As was to be expected, the canopy can open and you can see the inside of the cockpit.



You also build the rear harpoon and the cooling fins.



Finally the model is completed. It looks spectacular and is quite heavy. This makes me wonder whether the stand – made with Technic elements – will stand the test of time.



The model is also a little fragile. You can see that it was meant primarily for display (and admiration). If you want to ‘swoosh’ it you will have to go easy, as there are several parts that may come off easily.

Overall, the model is fantastic. The building process is very entertaining and there are some interesting techniques. The designers have paid a lot of attention to detail, with small gadgets that we fans love and which make it much more than just a static model. The price per element for this set is not bad for a Star Wars set at 11.7 cents/piece.

I would like to thank the LEGO AFOL Relations & Programs Team for providing the set for review. However, LEGO® does not approve nor endorse the opinions we publish about their sets.

#



Review: 70909 - Batcave™ Break-In

By *lluigib*

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

Set: Batcave Break-in

Set Number: 70909

Parts: 1047

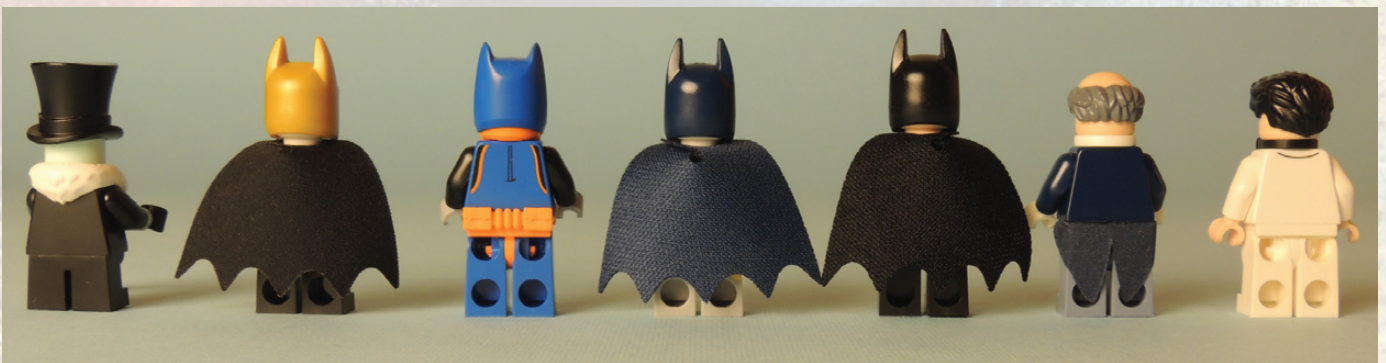
Includes: 7 minifigs, 2 penguins, Batboat, Penguin's Duckmobile, Batcave

Price: 99,99€ / \$99,99

The Batcave is one of the most iconic locations of any **BATMAN** movie. This new interpretation of the Batcave is closely related to the movie. We have held off doing the review until after the film came out in order to see how the model compares to the movie version.

Minifigs

This set contains 7 minifigs:



Batman™ is the main character in this set, although the minifig is the same one that appears in the other series. As a matter of fact, it is exactly the same as in three other sets so it is safe to say this is one of the less interesting figs in the set. Anyway, it is still an excellent minifig with many details and the new belt piece where Batman can carry some of his gadgets.

Bruce Wayne™, Batman's alter-ego, is also in the set. In this case he wears a white tuxedo with bow-tie (a separate piece). The torso is perfectly decorated but there is no decoration on the legs. The hairpiece is really nice and it is new in black in this set. Previously it has only been seen in blonde, in the Collectible Minifig Series 16 (Dog Show Winner).

Alfred Pennyworth™ is Batman's butler. In this set he wears a dress-coat and has a bald spot in his hair (just like the grandmother in the CMF series). He also has white gloves and there is a cloth accessory simulating the tail of his coat. The figure is very detailed in all aspects and is arguably the best one in the set.

The Penguin™, the set's villain, is a new edition of a minifig for which there have already been several previous versions. The head is similar to light sand green, and he comes with two new parts: his hat and a white fox scarf. After putting it together the minifig is quite elegant. The folded umbrella included as an accessory is also new in this set.

That's the end of the minifigs... but not quite! One of the novelties in the Batcave is the dressing room. In the movie it appears to be an enormous motorized wardrobe with hundreds of suits. Since it would be impossible to include so many, this set comes with a dressing room with space for seven outfits (we'll talk about those later on) and three are included in the set.

Evening dress: This is an elegant black suit with a jacket and golden batmask. The shirt has ruffles and the bow-tie is in the shape of a bat. The cape deserves a special mention as it is black on the outside and golden on the inside, making this a minifig that stands out from any other.

Boxer outfit: Taking advantage of the boxer gloves from the collectible minifigures, we now have a Batman with a grey suit, blue cape and helmet, yellow trousers and lilac gloves. It has a boxing champion belt with the batman logo on the buckle.

Diving outfit: The suit is blue and the accessories are orange (flippers, belt, and breathing gear). The helmet isn't closed so there is space for the breathing mask. In this case there is no cape.

In addition, although they aren't considered to be minifigs, there are also two armed penguins, henchmen of the Penguin. These penguins have red eyes and a stud on their backs for connecting backpacks with weapons.



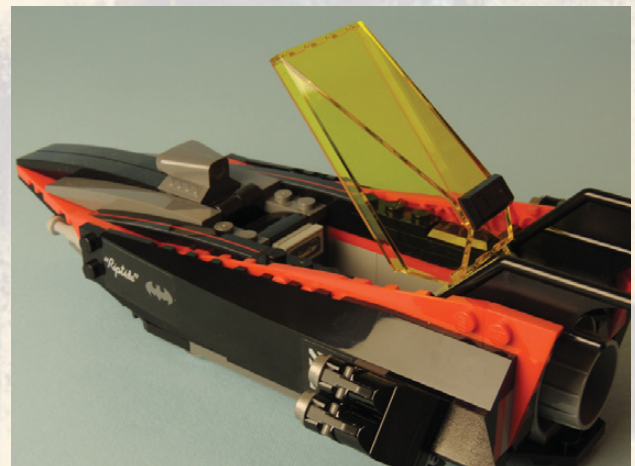
Vehicles

The set includes two vehicles: the Batboat and the Penguin's 'Duckmobile'.

The **Penguin's Duckmobile** is an excellent model and has the shape of a rubber duck. It is a typical yellow and the beak and accessories are orange. It is an amphibious vehicle with six wheels to travel on land and a propeller to navigate on water. It has a cab so the Penguin can drive it. It contains all manner of weapons (missiles, bombs, etc.) and three headlights. I must say the construction is quite solid, except for the neck, which is too fragile and comes off easily.



I especially like the **Batboat 'Rip-tide'**. The design is very compact and stylized, just like a Formula 1 powerboat. The windshield that protects the cab is the same as the Episode 7 X-Wing and the trans-yellow color reminds me of the Classic Space sets of the 80s. There are two launchers at the front and four on the sides. The latter ones shoot 1x1 plates. It is driven by a turbine on the rear of the boat, right behind the cab.



The Batcave™

Evidently this is the largest and most detailed model in the set. It is a modular construction that starts with a central module which is extended on both sides.



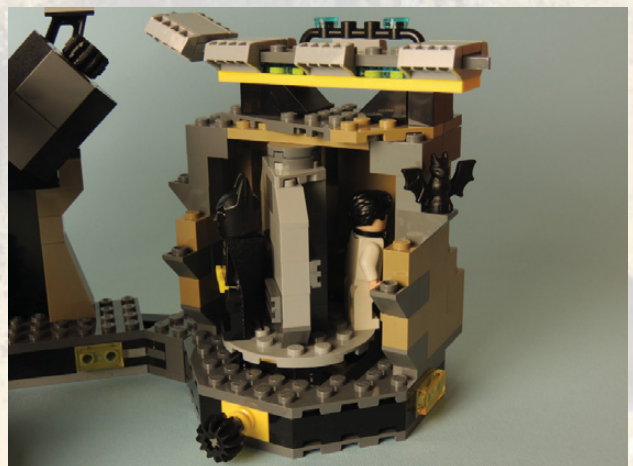
The central part is made up of the computer, the command center and access walkway. All of this is elevated above the floor of the Batcave. The computer has multiple screens and when you look at the whole it has the shape of a bat. On the screens (tiles with stickers), there are images of weapons, vehicles and information about enemies. The control panel contains a keyboard that Batman can interact with, as well as several screens and an emergency button (again, mostly done with stickers). Batman has a chair that looks really comfortable. It turns, has armrests and reclines. There are two rotating panels on either side where weapons are stored. These elements are both functional and decorative, due to the combination of colors. These elements can be accessed through folding access ways. In the movie it is made up of different elements that connect as Batman advances. Obviously that is something a set can't reproduce, but the solution of folding modules is very good and works with what you can see in the movie.



On the right side you add a module that represents access to the Batcave from the mansion. Basically it is a revolving door surrounded by stone. To make the door turn there is a knob at the bottom of the module. The mechanism is a little tricky to fit together, but works perfectly.

On the left side there are two more modules. The first is a cell where villains are kept. It has two doors and a small mechanism that simulates an explosion with dynamite, making the doors come off the model. The other module is the dressing room. It is one of the most entertaining elements of the movie in which it shows the many costumes Batman has, and other characters like Alfred or Robin use it to find their own suits. In the film it looks like there are hundreds of suits, but again, that is something that cannot be reproduced in a set of this size. The solution consists of a series of Technic treads placed vertically. With the help of some cogs you can make the dressing room

turn. The set comes with three outfits which are placed in the dressing room, though there is space for a total of seven. There are other outfits that appear in different sets and in the collectible minifig series, so it is easy to fill up the dressing room. As a last detail, there is a walkway on top of all the modules allowing you to get from one to the next.





Conclusions

The Batcave is one of the main settings of the movie so it is a must-have set for Batman fans. It is hard to recreate what you see in the movie in a set of this size with a limited budget. The limitations are huge. In this case we have a good example of how this can be done without making the set too austere.

The selection of minifigs is really good. Alfred is arguably the best minifigure in the set. The vehicles, together with the Batcave, make an excellent combo with lots of playability and plenty of detail. The Duckmobile is both funny and original. There are no advanced building techniques, but the set isn't boring or repetitive either.

The relation to the movie is more than evident, and I believe LEGO® have done a good job recreating the main elements in a compact, playable and fun way. Any child who plays with the set can choose different outfits, recreate the battle between Penguin and Batman, or have Alfred try to make Batman come to his senses.



I would like to thank the LEGO AFOL Relations & Programs Team for providing the set for review. However, LEGO® does not approve nor endorse the opinions we publish about their sets.

#

Review: 70908 - The Scuttler

By linmix

Images by linmix and LEGO® System A/S

Set: The Scuttler

Set number: 70908

Parts: 775

Contains: 6 minifigs

Price: 79,99€ / \$79,99



It's LEGO®, it's a movie, it's Batman™ – what could possibly go wrong?

When The LEGO Batman Movie came out it took me quite a while before I went to see it. Truth be told, I was a little afraid; of disappointment, of seeing simply 'another movie' – entertaining at best, but nothing substantial. In the end it turned out that my fears were unfounded; that the movie wasn't just a succession of gags, but also had an interesting plot line. As a bonus, the sets representing scenes from the movie all had the same mix of crazy fun as the movie itself.

With 'The LEGO Batman Movie' something similar happened. On the one hand I was looking forward to another encounter with the crazy character of the Dark Knight. The trailers were all quite entertaining and it looked like the movie would have both a multitude of gags and a story to tell. On the other hand I was afraid I might be disappointed – watching it at a local cinema means having to 'suffer' the Spanish dubbed voices, and I wondered what would be left of the main character without Will Arnet's characteristic voice. As for the sets... although I like superhero movies, I am not so much of a fan that I want to have every Marvel set LEGO has produced

to date. I simply fail to see the connection. At first sight I wasn't at all interested in the series of sets LEGO brought out for The LEGO Batman Movie. There are clear and charming references to the typical villains Batman battles, but nothing that screams "Buy me!"



However, there is one set that stood out for me: The Scuttler. There are two determining factors that drew my attention in this set from the very first time I saw it. The first thing is the beautiful shape of the model. It looks almost feline yet clearly represents a crawling bat, while the absence of wings doesn't stand out at all.



The cab perfectly captures the shape of the head and the front legs include claws which allow the bat to hang from any surface. The second factor is related to functionality. Despite, or maybe as a consequence of the well-drawn shape, the Scuttler is perfectly functional and robust. The hinges that determine the angle of the legs, the extending mechanism of the front legs, the way the head can be posed... it all resonates with techniques that are usually found in Technic builds, while at the same time they remind me of some of the dinosaurs that have appeared in the Creator theme and of which I'm also a big fan.



Even before having watched the film, the minifigs are delightful. I instantly fell in love with Poison Ivy, not just because of her magnetic personality and excellent printing, but also because of the representation of the character, including her 'transport'. Without a doubt, to me this is the best minifig in the set.



I was never a big fan of the Joker, even though his grotesque jokes are part of what makes the movie. His large gun destabilizes the minifig in such a way as to make it hard to get him to stand. His long coattails don't make it any easier either.



Batman™ is... Batman, but his new ally, Dick Grayson is, to say the very least, peculiar. The fact that his glasses are one with his hair piece was probably inevitable, and just seeing those glasses makes you imagine what his character is going to mean to the movie.



There is little to say about the remaining characters. Until you watch the movie it is hard to place them: will they be Batman's allies or doing their best to arrest him?

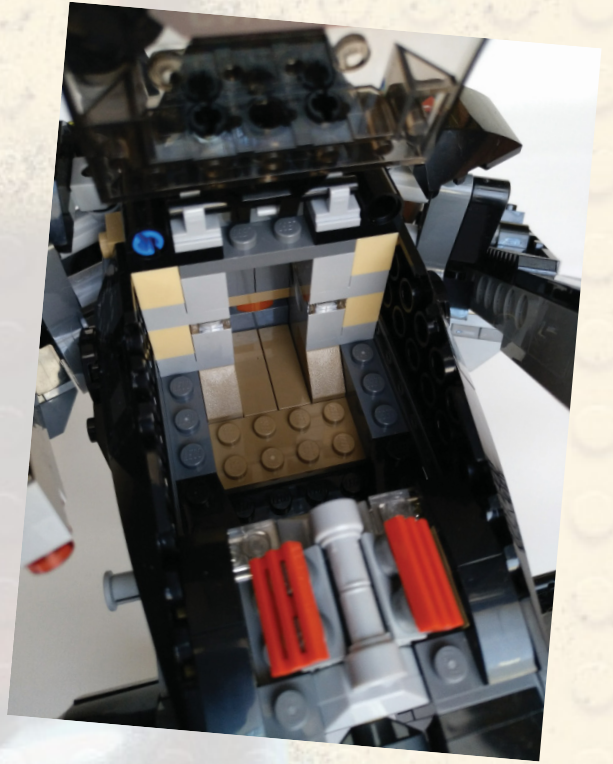


Let's get back to the centrepiece of this set: The Scuttler. The main mechanism of this set is evidently the legs. Although the model has a convincing crawl, extending and retracting its legs just like in the movie, that's where the comparison ends. In the movie, in addition to crawling, the Scuttler transforms to fly. It is easy to see how adding wings would have been difficult, but in order to ensure the excellent stability of the model, the front legs can't open to the sides. This limits the representativeness of the model significantly. Even so, both the excellent shape and the solid working joints make this a very playable model. In addition to the plate launchers on the cab and front legs, the Scuttler also has a cannon which shoots a net. When I saw the mechanism I had my doubts, but the fact is that due to the rigidity of the net it works quite well. The net extends correctly and with a bit of practice it is possible to catch friend and foe alike.

As for The LEGO Batman movie, I won't give you any further spoilers. I will simply say that if you go in with few expectations you will likely come out pleasantly surprised.

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#



Review: 21127 The Fortress

Defending your achievements in the dangerous world of Minecraft™.

Text and images by Legotron (A. Bellón)

Set: The Fortress

Set number: 21127

Parts: 984

Contains: 4 minifigs and 2 animals

Set 21127 The Fortress is part of the latest series of sets in the Minecraft™ theme. As the name indicates, the set recreates a Minecraft fortress.

We've already reviewed several sets from this theme in the magazine: 21118 The Mine in HBM021, 21121 The Desert Outpost & 21122 The Nether Fortress in HBM024, and 21128 The Village in HBM025.

Personally, I quite like the design of these sets, because of the way they represent the constructions and because of the kind of parts they contain. So this is a good opportunity to analyse whether the Minecraft sets are still continuing along the same lines.

The building process of this set is a different experience compared to most sets that are made by LEGO®. Like most sets this size, the box includes a series of numbered bags with all the parts and the corresponding instructions. This set contains five instruction booklets.

One is larger and the other four have considerably fewer pages. At the start of the building process you build the different elements, but as you advance you can see clearly that you are not building the set as it appears on the box. You are building modules. This set is 100% modular!

The building process consists of building the modules that make up the different structures, parts of the floor and elements to connect the different modules. But unlike other sets, the modules are designed so they can be connected to any other module; there are no edges or connecting areas that



limit the way they can be placed. There are several elements that are repeated many times, but given their small size this doesn't become tedious.

Some modules, like the entry gate to the fortress, have very simple but ingenious mechanisms that are integrated within the module, so they don't need to be combined with other modules to make them work.

The different elements you build include several tower structures, a gate in the wall, a stable, green areas and several sections of the wall. Given how similar Minecraft structures are to LEGO construction blocks, most of the build process is very simple and except for the latticework on the windows or the mechanism of the gate it can easily be built by small children.

In addition to the modules, the set contains four minifigs (Steve and three skeletons) and two animals (a horse and a sheep), as well as some accessories like utensils, weapons and armour.

Another outstanding detail is the absence of stickers – all decorated elements are printed. This is quite important to many within the AFOL community.



As we have seen before, with the first instruction booklet you build all the modules. The set contains another four instruction booklets which allow you to build four different constructions based on the modules once they are already built. Basically, these are guides to build four different fortresses, and each booklet details how to connect the different modules. What stands out in these constructions are the different ways you can combine the modules and how the end result differs notably from one model to another.

Repeating what I have said in previous reviews, this is the type of set we want to see in other themes as well. I'm not a fan of Minecraft, but I love these sets. This particular set has a modular design which gives you the modules as well as different ways to use them, and this may help many people, who normally just stick to building the model as it comes in the instructions, to develop their own modules or modify them. The set is a perfect playset. It offers a great variety of possible scenes to build.

Best of all, it contains a fortress you can play in. When you see the fortress and you compare it to other themes, like the latest Pirate sets, you can see the difference. In this set, the buildings are complete, with four walls, doors, windows, and a roof and enough space inside to place several minifigures. Even the stables for the animals look like complete structures. In addition, inside the walls and between the different structures there is a lot of LEGO surface where you can play and place the minifigs and accessories. And since they are placed on studs you can place them in any pose without them falling over. There is even space to place three or four minifigs in a line

This is the best part of these sets: there is plenty of space to play and build. You can make a vegetable garden, more structures, place more minifigs in all kind of scenes... you can play inside the walled keep, but always on LEGO pieces. There is even a small green space with a tree outside the keep when you build the biggest composition. It is one of the things I like most about the construction.



Obviously these sets are clearly focussed on fans of Minecraft and that may be the biggest fault in the theme. In this theme the storyline feels monotonous, as that's what the story of the game is like. There is only one character the player steers, and that translates into the fact that if you buy all the sets you end up having dozens of minifigs of Steve.

Even though new characters have been added, this monotony in the minifigs means the focus of the sets is on the elements you build.

The fun of the game is building and that is what LEGO is also all about. But if you are going to build with LEGO, and you are not a fan of Minecraft, it is a lot more fun to build more realistic models. The simplicity of the sets is also perfect for the smaller ones. My 5-year-old nephews build houses and structures that are very similar to the Minecraft sets and so they have become used to Minecraft very quickly.

Another thing that stands out – just like in all the other sets in this theme – is the inventory. Replicating the square structures of the Minecraft world means the prevailing part type is the brick. And nearly all the elements in these sets are grey, brown and green, which are quite useful for any landscape, structure or building. The set also contains a fair amount of medium sized plates, which tend to be omnipresent in any type of construction. The accessories, like utensils and plants, are also welcome parts.



We wish to thank LEGO for providing this set for review. However, LEGO does not approve or endorse the opinions we publish about their sets.

#



Pre-season Formula 1™ 2016

By *lluisgib*

Images by *lluisgib*

Theme: Speed Champions

Set numbers: 75879, 75882, 75883

The 2016 Formula 1 pre-season has started and the teams are working at full throttle to get their cars ready. The tests to fine tune the cars will start in the following weeks at the Circuit de Catalunya. After contacting several teams, Scuderia Ferrari Formula 1 and Mercedes AMG Petronas Formula One Team have opened their doors to show us how their designs are evolving.

Scuderia Ferrari Formula 1

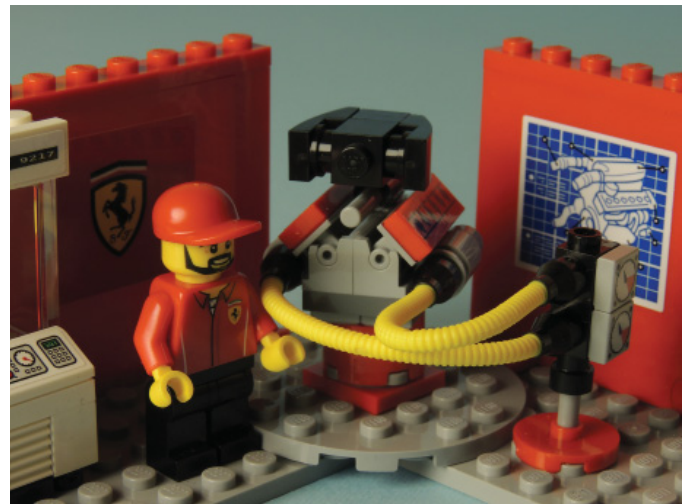
Let's go back to the Bologna airport and rent a car. We will take a trip to Maranello to visit the design department of Ferrari. Upon arrival, the Ferrari FXX K is in the wind tunnel. This car has a very limited edition (only 40 units) based on the LaFerrari platform by Ferrari. You can see the angular shape and the different spoilers that give the car stability at high speed.



The engineer in charge of the wind tunnel allows us to take a look at the computer screens displaying the acquired data. Since this is not Formula 1 there are no restrictions against showing this information.



After seeing this test we go to the adjacent box. Here they are testing an old 12 cylinder Formula 1 engine. There is a test bench and an exhaust collector so nobody is asphyxiated by the exhaust fumes. The engine sounds glorious compared to modern F1 engines. It has a very high pitched sound and you can hear its tremendous power.



Meanwhile, right next to it there is a 3D printer finishing the last piece to complete the front spoiler of the Formula 1 car. The machine is controlled by the main engineer who oversees the whole process.



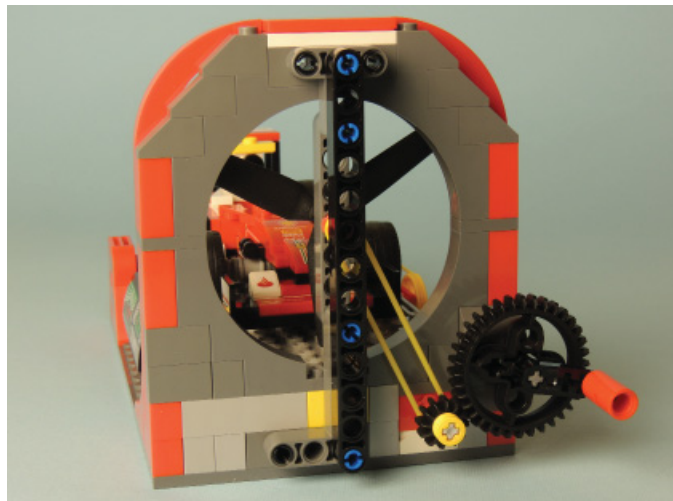
After finishing the piece, it is added to the front spoiler.



Now the Formula 1 car is ready to go into the wind tunnel. But first the machine needs to be adjusted to adapt to the wheelbase of a Formula 1 car.



We attend the last trials before the test rounds at the Circuit de Catalunya, and see a very stylised Formula 1 car. The last parts of the nose have just been printed and the assembly has a double curve that gives it a very elegant appearance. Another thing that stands out are the long side pods surrounding the cockpit. The livery is slightly different from previous years.



For example, the top of the engine cover is white and the Italian flag runs over the whole nose. It's obviously an Italian design. We appreciate the opportunity Ferrari has given us to visit its installations, and it has been very interesting to see part of the development of a Formula 1 racing car.

Mercedes AMG Petronas™ Formula 1

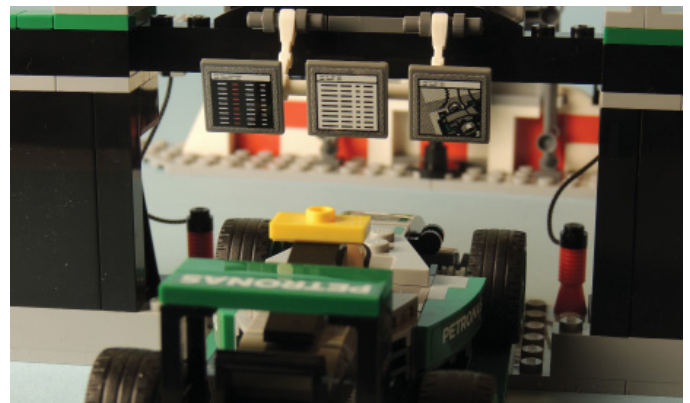
Next we travel to the United Kingdom for the Filming Day of the Mercedes team on its test circuit. After landing in London we go to Brackley, where Mercedes has its headquarters, near a small airstrip they use for promotional purposes. We arrive during the official presentation of the new cars and their drivers.



The cars have a two-level nose and a rear spoiler that includes an additional spoiler underneath to add more aerodynamic power. These are small changes to a car that won the Driver and Constructor Championship titles last year. Lewis Hamilton starts driving while Nico Rosberg's car stays in the Box for some fine tuning.



Aside from the machine for refueling the cars, there is a second rear spoiler with less aerodynamic power for circuits like Monza or Montreal that require higher top speeds. Going into the garage we see Nico who is already in his car, observing everything that is happening on the screens he has at his disposal.



Toto Wolff doesn't take his eye off the track. He is sitting on the pit wall and gives instructions to the whole team regarding how to get the best images (and to collect data, as teams use these Filming Days to do covert testing).



There is a spectacular display of equipment to take images from all angles. There is even a camera with telescopic arm to take close-up images. Lewis takes the bend several times at low speed. This way the camera can record the perfect angle.



Mercedes have also prepared a set to interview the drivers. There are giant screens on where you can see what happens on the track as well as the interviews that are held.



To finish off, Lewis Hamilton is brought onto a podium to present the World Championship trophy he won last year to the assembled press. Of course you can see everything on the giant screen behind the podium.

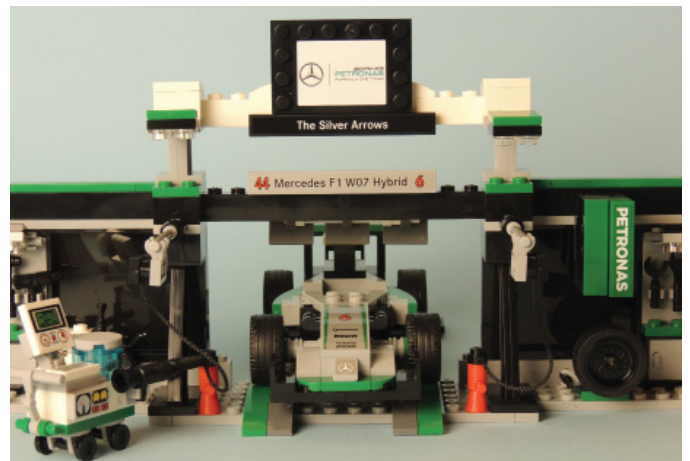


The day is over and we go back to Barcelona where one week later we will be able to see the result of all the hard work the teams have done during winter. It is 9 a.m. at the Barcelona Catalunya Circuit and the lights have turned green. The cars are ready for the installation lap. There's a long championship ahead!



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Mini/Micro Star Wars™

By HispaBrick Magazine®

On this occasion we bring you a series of creations that are related to the world of Star Wars™ and in which size plays an important role.

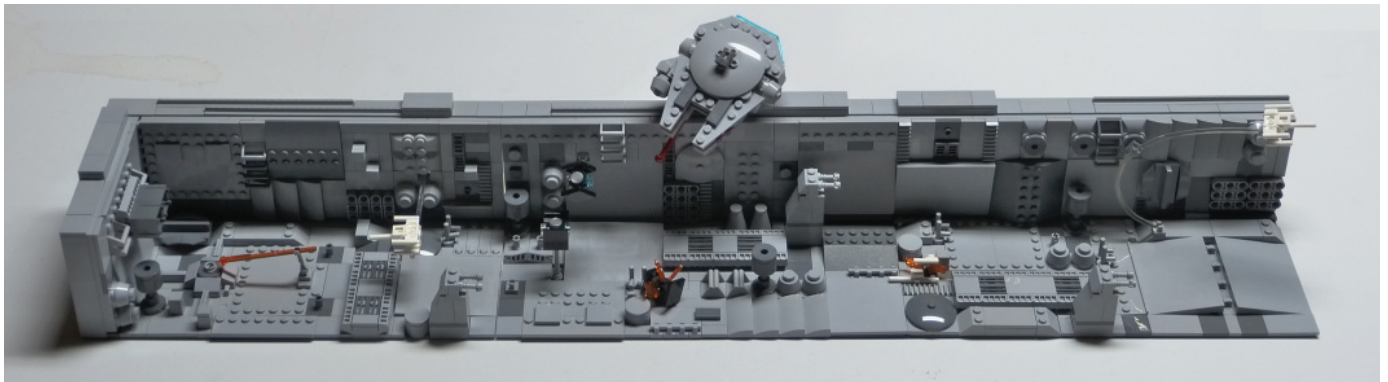
In the last few years we have seen how the AFOL community has started to become more interested in creating MOCs on a smaller scale than minifig scale, at mini or micro scale. This entails a higher level of difficulty since it requires combining sophisticated building techniques with the right choice of elements to obtain the best possible representation at a small scale.

It has become a custom among Star Wars™ fans to look forward with enthusiasm to the next UCS set LEGO® brings out. These sets tend to be larger than standard sets and involve large constructions.

Below we will show you a series of creations in which the authors, rather than choosing to build large scale constructions, they have preferred mini/micro scale, resulting in MOCs that are true gems.

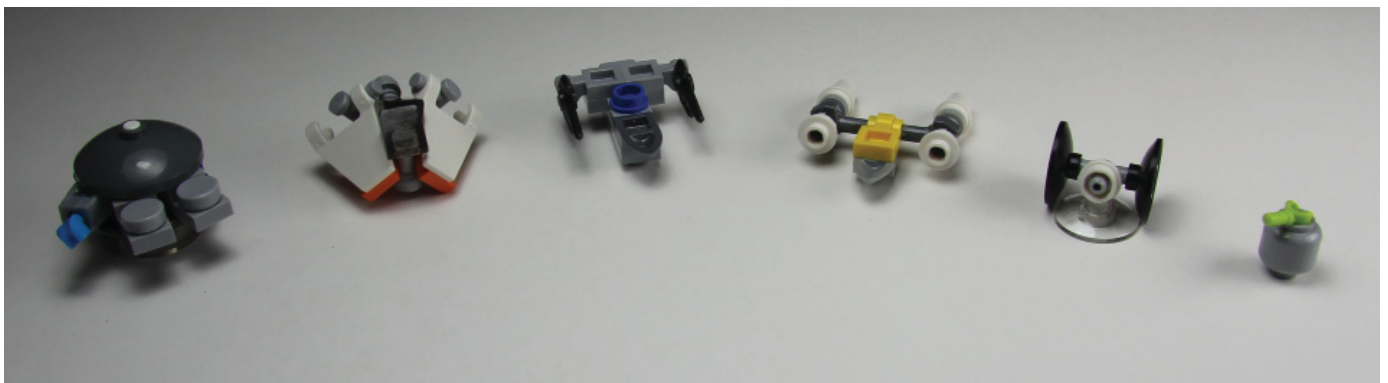
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STAR
JASON ALLEMANN, "MICRO SCALE AT-TE", CANADA, JUNE 2015
WAR.S



Dodge...: www.flickr.com/photos/sasklegousers/

STAR
KOFLER STEFAN, "STAR WARS EPISODE IV-VI: MICRO FIGHTERS", AUSTRIA, JANUARY 2016
WAR.S



kofi: www.flickr.com/photos/113505120@N03/

^{STAR}
JASON ALLEMANN, "MICRO SCALE AT-TE", CANADA, JUNE 2015
_{WAR}



JK Brickworks: www.jkbrickworks.com

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JOHN STEPHENS, "CORELLIAN CORVETTE", USA, JULY 2015
_{WAR}



-=Steebles=-: www.flickr.com/photos/steebles1908

STAR
MIRO DUDAS, "DEATH STAR TRENCH RUN", USA, 2014
WAR5



Miro78: www.humblebricks.com

STAR
PAULO CASTANHO, "BATTLE OF GENOSIS", PORTUGAL, DECEMBER 2014
WAR5



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STAR
PETER THALER, CANADA, MAY 2012
WAR.S



thaler1978: www.flickr.com/photos/thaler1978/

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NATHANIEL STONER, "NANO AT-ST", USA, OCTOBER 2016
WAR.S



Roy of Floremheim: www.flickr.com/photos/127632387@N03/

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KEVIN DEUTSCH, "ESCAPE FROM JAKKU", GERMANY, NOVEMBER 2015
WAR5



KevFet2011: www.flickr.com/photos/125969262@N06/

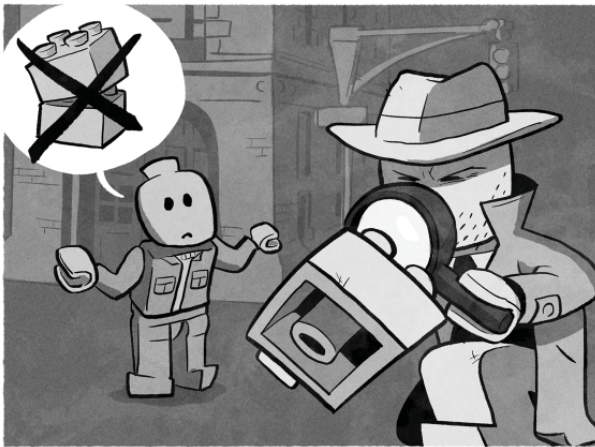
STAR
ZIO CHAO, "DEADLY CHASING", TAIWAN, JUNE 2016
WAR5



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