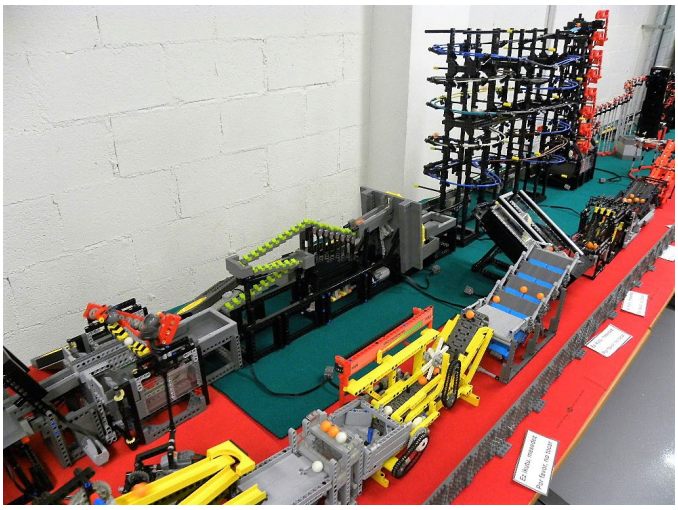
GBC Circuit at the 2018 Munguía Collector's Fair

by Fernando de Quintana de León and Álvaro Arnedillo Villar (Fision-LEGO®)

On April 8-9 2018, in Mungia (Spain) at the XVI Collector's Fair, we celebrated one of the most important AFOL meetings in the North of Spain. This meet-up was organized by HispaBrick Magazine® and involved the participation of about 20 members from various associations.

With this event we were very pleased with the great success achieved in all sections where we had representation. In this article we will focus specifically on our GBC (Great Ball Contraption) circuit, which was the largest to have been publicly presented in Spain.
Admittedly it is still a small circuit by international standards, containing a total of 29 modules, but it was also assembled by only two people who have been coordinating for just over a year while living about 140 km from each other.

Previous Spanish attempts at GBC circuits at various exhibitions have been hampered by a lack of coordination between participants, resulting in limited success.



For this reason the two authors of this article – Fision-LEGO®, only 15 years old but with plenty of LEGO® experience and passion; and Fernando, an AFOL of 71 years with 2 years of GBC experience – proposed to make a worthy GBC circuit and to work without incident during the two days of the event. We each had experience building, copying, modifying and inventing modules, but had never met or worked together until Fision-LEGO®'s father suggested we collaborate to make a GBC circuit.

From the beginning we set some rules for ourselves, putting a lot of emphasis on the cleanliness of both the modules and the balls, and not allowing any substitutes for them despite the price of the official LEGO® balls. The modules had to work well in a coordinated way, and before going to any exhibition we discussed and carefully considered the most effective way to exhibit them, so that the public would best enjoy the display.

Within these conditions we are open to having other friends and AFOLs join our GBC project, but for now it is just the two of us and we hope visitors to our exhibitions will enjoy the beautiful spectacle of seeing LEGO® balls pass from module to module all the way around our circuit.
For the circuit presented at the 2018 Munguía Collections Fair, we initially had 29 modules on the morning of Saturday April 8, but were reduced to 28 for the rest of the fair after removing the Akiyuki Electric Train module for which we which ran out of batteries.

Thanks to the flexibility of many of the modules, we were able to rebuild the circuit in a very short time during the midday break on Saturday.
The great Japanese genius Akiyuki was represented by 12 modules, plus the beautiful Marble Run connecting to the Bucket Wheel Tower (which we did not count in our module-count, since it is not really a module but rather a beautiful and spectacular start ramp).

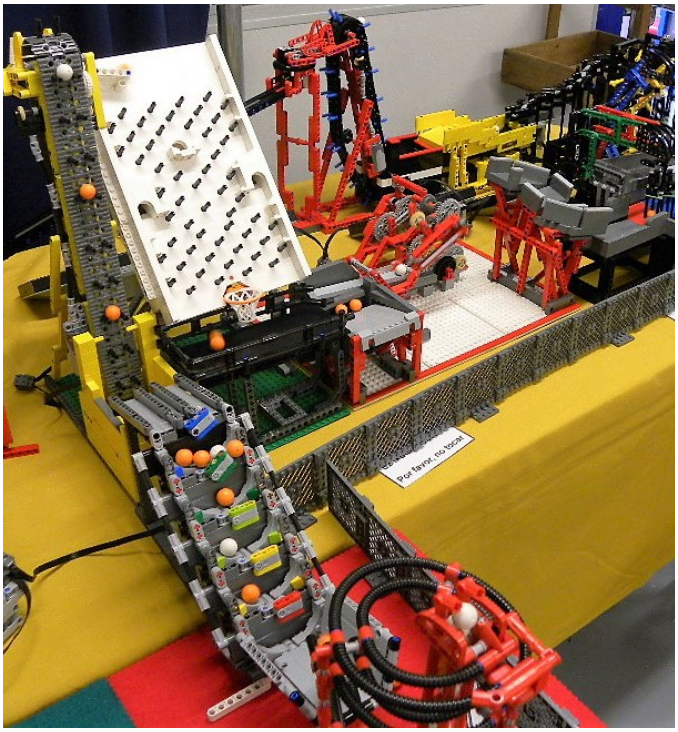
There were also modules from Maico-Arts, who has been breaking records all over Europe, and from Nico71, the great French creator who has designed GBC modules as well as a loom, a watch, and a Citroën 2CV among his many creations.

We have presented the beautiful and effective Torso Cardan Lift, the Tofe59 Oscillating Ramp (for which Fision-LEGO® has published instructions in LDD), and the Superfin619 Steering Cup, as well as several other modules based on what we have seen in various GBC videos from other exhibitions around the world. We have tried to copy or improve these latter modules, but in most cases we do not know their actual authors.

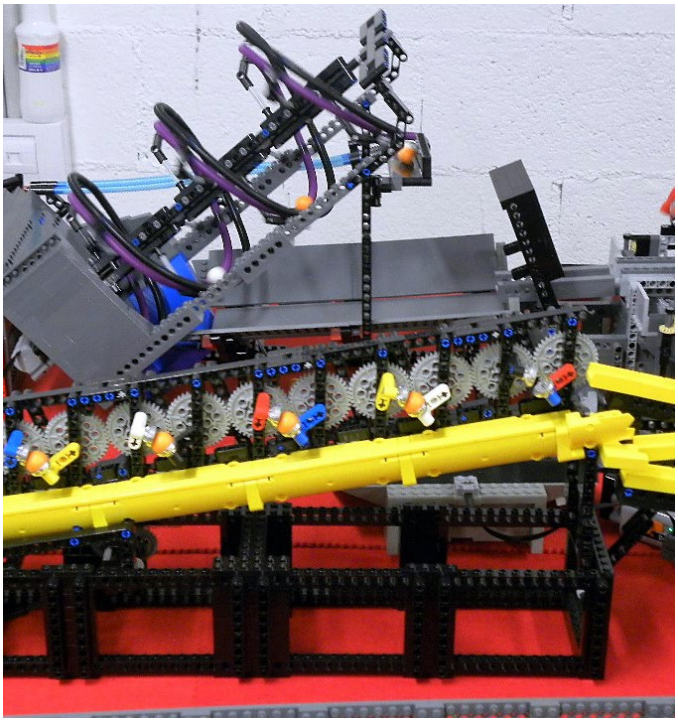
We used between 250 and 300 balls for our display. We actually started with 360 but then reduced them, while ensuring that all modules always had balls in process, as it is very ugly to see empty modules on a circuit. All these balls returned

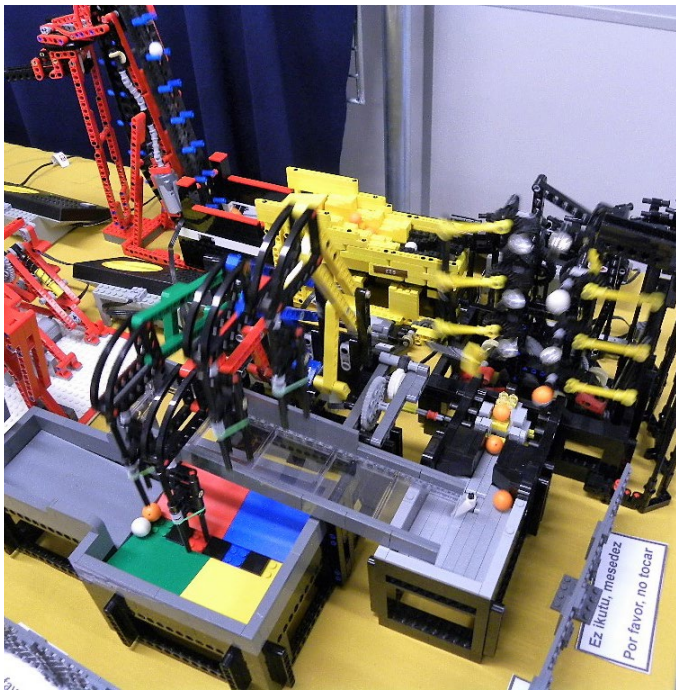
home after the event, indicating the good performance we had with the circuit, interrupted only by the occasional jam or failure of a module.

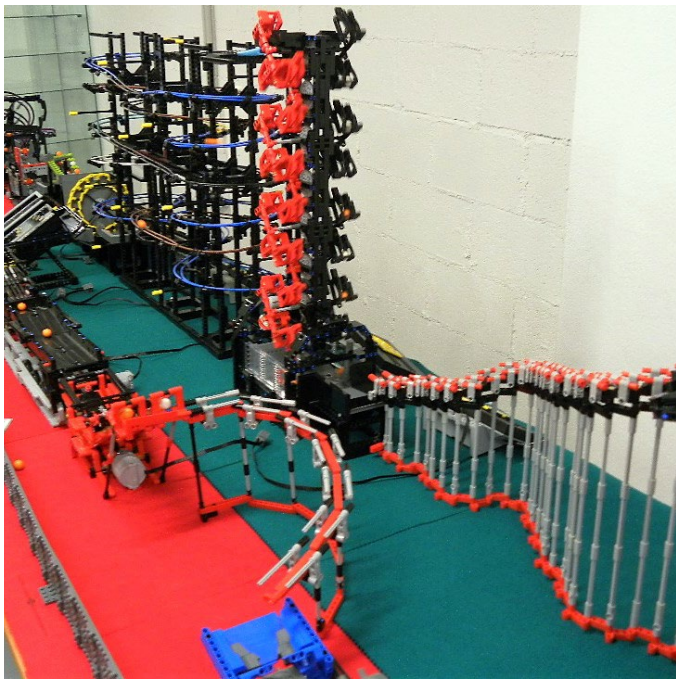
Thanks to the use of certain modules, such as the flexible snake output used by Akiyuki, we could isolate any module with a problem without affecting the operation of the rest. As a power supply system we used 27 regulators from the old 9V trains, as we think this system allows for the easiest regulation of speed for each module, and it does not depend on batteries.



We used only 27 because two of the modules moved with a connection between them, and the train only works with the batteries of the carriages, which also move the loading ramp and unloading mechanism apart from their own travel movement.







So almost every module had its own regulation. All of these regulators were connected to a base strip with a switch to allow for the immediate shutdown of the whole installation in case of a major problem, and connected to this base strip were other strips for reaching different points of the circuit.

This has been a little bit of our history with GBC's, from both Fision-LEGO® and Fernando, and we thank our mutual friend Antonio (Legotron) for the opportunity to share it here with HispaBrick readers.

Our circuit may still be small in comparison with those shown at bigger expos around the world, but we look forward to inviting other AFOL GBC-enthusiasts to join us in extending our circuit with new modules in the future.
#