006

hispabrick magazine

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hispabrick magazine

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hispabrick magazine

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Front cover by:

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Editorial

By Jetro

The publication of issue 006 of Hispabrick Magazine coincides with the celebration of our annual event, Hispabrick 09. The months prior to an event of this scale are always complicated because of the many things that need to be organized both on a personal and a collective scale, but in spite of this circumstance, we continue to receive excellent contributions for the magazine and I would like to take this opportunity to thank everyone involved for their efforts.

The passion for bricks isn't limited to great MOCs (although in the current issue you will be able to see some exceptional ones) but is equally related to eagerness to inform that many creators feel. AFOLS have been using forums and mailing lists to share their ideas and interests for a long time, but often this information is lost under an avalanche of questions and comments. Through Hispabrick Magazine we strive to provide a showcase at a different level for some contributions that in some cases started out as no more than a simple comment on a forum, but which have grown in content and now well deserve a greater level of exposure on the pages of this magazine.

There are also other contributions that complement our hobby. Among these are learning more about the birthplace of LEGO®, about what other AFOL communities are doing and, of course, a closer look at the work of some great creators. The magazine would be incomplete without a number of articles dedicated to these matters. Add to that the sections that you are already familiar with and you will find another issue of Hispabrick Magazine full of great content.

With this issue we wish to continue along the same line as before, and although we as editors have already got one eye on the next issue we would like to hear your comments and criticism to continue improving this magazine. At the same time we wish to extend an invitation to anyone who would like to participate by submitting an article either in English or in Spanish (and even in a number of other languages we can help you can help you to publish your contributions).

To close off I would like to wish you a great Hispabrick, and if you can't be there, you will get an exhaustive report in the next issue. ■

"Le Mans" Fever

Evolution on wheels

Text and pictures by arvo

Despite never having been to Le Mans and being far from 40 centimetres tall, we feel strongly attracted to this sports car, the Ford GT40 "Le Mans". The fact is that a design that after 45 years remains as valid as the miniskirt deserves the attention of anyone who has ever read a car magazine at the dentists ... and Ramon has red many!

We imagine that it must be the age ... but all the sport cars from 60´s and 70´s stir up in a passion in us like their actual counterparts have never done. The Renault Alpine, Corvette, Datsun 240Z and the Shelby Cobra ... the list is endless. All very different but with a common feature in their design ... "They were not shy"!

That mix between disproportion and sophistication attracts us. Sharp noses, mega-sharp curves, fenders pointing to the infinite sky, stickers and lines that suggest ... cars that seem to be "posing" , with a presence capable of attract all eyes, no matter how distracted you are ... and Ramon ...

1, 2, 3 ... S PLASH!

Having three versions of the same type of car is a clear sign of discontent (or depending on the case, exactly the opposite), however ... there won´t be a fourth one. For us, this version is the last one. We found a size that we are truly comfortable with, a "not for you", "not for me" where we can capture sufficient detail without having to mortgage our time with ridiculously large models.

From the first to the last version 4 years have passed. Looking at the pictures, the evolution is more than evident and, although the time between versions is practically the same, the differences between them are at very different levels.

Why?

This article is an attempt to identify the points that explain, from our point of view, the many differences in technique and design that exist between each of the versions and that also represent our evolution as builders.

The best is to start at the beginning...

... We'd just picked up the hobby again, we knew next to nothing about the AFOL movement (except that there was a site called "Brickshelf" where you can show photos of your constructions) and the parts that we had barely allowed us to build anything but a distorted multi-colour absurdity.

We were not even aware of how difficult and expensive some of the models we looked at, admired and valued only by their "weight" were Ironies of life, they paid us back in their own many times ... but that's another story.

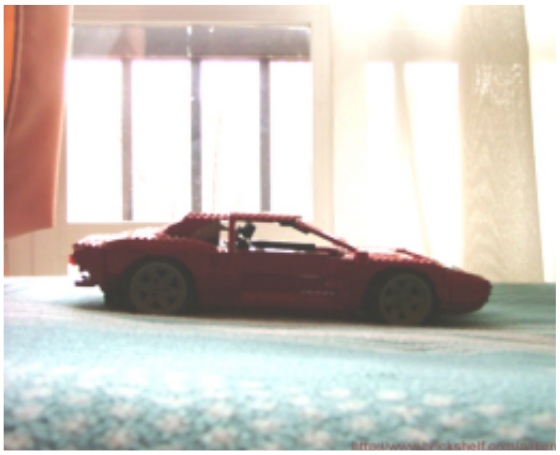
We knew nothing about many of the techniques that we now take for granted (SNOT, use of minifig accessories, bar or click type elements or Technic, etc.), but that was not an impediment for making more and more constructions. Conscious that they appeared to have escaped the mind of a child ... we were not deterred. Without knowing it, part after part, we learned new uses for them, but the real revolution was yet to come ... because, by then, we lived with our back to the "new" sets, and therefore "new" parts.

But lets not anticipate events.

As if we had given "Marnie the thief" a bucket and a half of red bricks, we were only able to think about red MOCS... motorcycles, boats or cars ... everything had to be red, and we assure you that red was not the dominant colour . One curiosity that must have an explained, we assume. So, in this way we managed to reach our first version of the famous Ford GT.

Resigned not to being able to reproduce curved lines, for us a Ford GT was simply a car with a wedge silhouette and ... red, "has to be cool" we said. We were not too demanding on ourselves and getting any "extra" detail represented a real tour de force worthy of the admiration of brothers and nephews.

Just a few "brush strokes" managed to survive the inevitable evolution, but the choice of that size would be (unknowingly) a declaration of principles for us.



But ... besides the obvious, what differentiates one version from the other?

Something as simple as discovering one single part: the Brick "modified curved"!

This "modest" part is capable of much more than providing a smooth curve where once there was only a sharp edge. We would like to know why this piece has a plate-like flap or why it has a height of 4 plates (slightly off from the multiple of 3) ... maybe there is an explanation; sure ... these "subtleties" determine the use and therefore the staging of the part. In any case, it was as important to find this piece as finding going crazy in with the effort

Between the two versions there are many MOCS and above all, a willingness and an approach to building in a very different way ... we definitely left behind the functionality (if e ever managed to create any) in favour of aesthetics. Some builders have the ability to combine both, but our experience tells us that both qualities can hardly be maintained at a high level in the same construction. Of course there are exceptions. Who does not remember the famous MOCs of LoryGub32?

It would not be fair to the "yellow GT" if we said that we finished the second version, knowing that we hadn't reached our goal. On the contrary, we finished it as we do any MOC, in the certainty that we really cannot do it any better, but...

... Time is a merciless judge and this second version has revealed the passage of time more than any other construction. It feels "strange" how a MOC to which you have been devoted in body and soul loses "punch" every time you look at any of its photos.

Things could not remain this way...

"**Le Mans". WHERE CARS DREAM WITH FLATS.**

... And we say "strange" because at that moment in which we were aware that we have to put "order", we had a feeling of vertigo not knowing whether we could or not do better ... that was only comparable to the feeling we had on our first ride in the "The Octopus" at the fair (although at that time our only concern was not to lose our glasses).

It's the car that has taken us the most time to build. It is true that some events delayed its construction (we started it in April and until August we could not take the photos) but this time we wanted to get a model in which we saw the final version ... whatever the time it took.

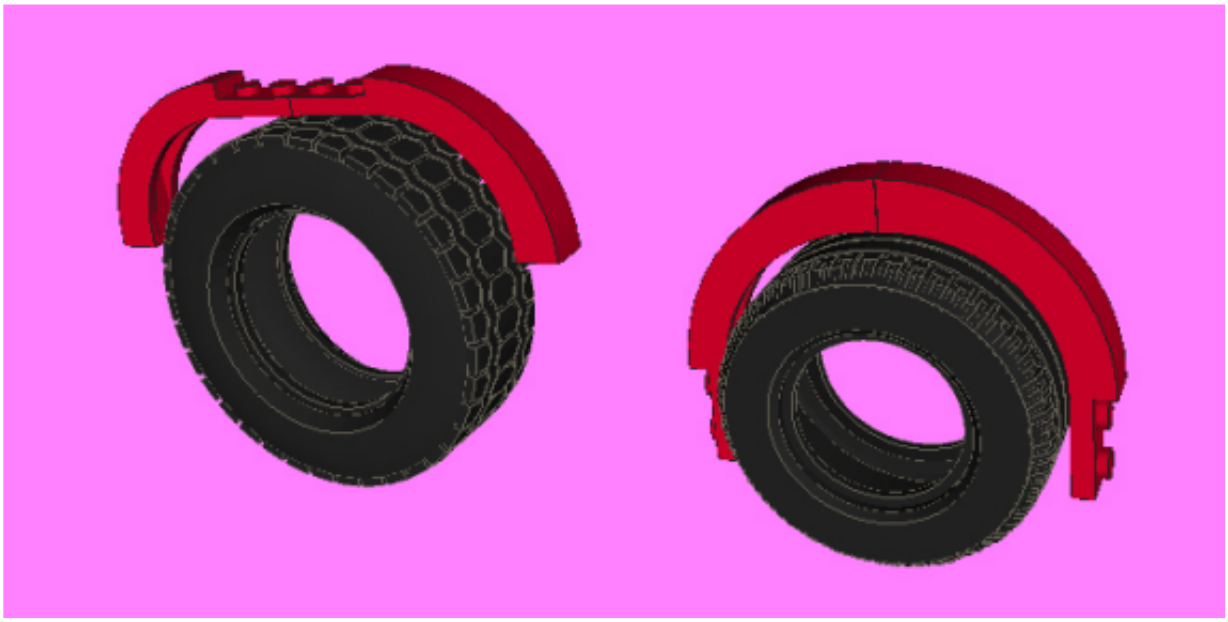
This seems to work in theory, but in practice, nothing further from the truth. You have to like what you're trying to build to endure month after month of building without ever questioning the objective. We wrote it off as impossible twice.... it was like crashing over and over against a concrete wall... as in an advert, we were like two fish looking for the exit of the fishbowl ...

... And probably we would still be looking for it if there hadn't be a change of course.

The first idea was to make this latest version in exactly the same "terms" as its predecessor, i.e. a yellow car with black stripes. The only way to perceive the real differences between each model was doing it this way. We already imagined some of the photos at very similar angles to those of the previous model, with the effect that has on us... we were very curious to see them.

And so we started the project with the intention of building it in yellow with black stripes.

One condition though, no more XL sizes... please!. We hadn't done altogether badly with the last two models, the DS Citroën and the Porsche 911 "Carrera". Their dimensions were almost identical and the degree of detail that we captured was more than enough to get something "recognizable". Being able to include our idolized WindScreen "greed-size" or being able to get a semicircular gap for the hollow of the wheel (inverting the Brick Arch 6x1), has made this size a standard for us.



The chassis that we used has the same characteristics as those used in the two models mentioned before (we even saw the opportunity to also use the WindScreen 2x4x12) and some of its elements are a legacy of the times of our NewBeetle, the 131 or even the Escudo.

Everything seemed to go well with the chassis (Why not? It was the same we had used in other models). The proportions seemed right and the wheels (front and rear identical to each other) conformed perfectly ... until...

...
TYPE MISMATCH
TYPE MISMATCH
TYPE MISMATCH
TYPE MISMATCH

"TYPE MISMATCH" ... it´s what a Commodore 16 would tell us if it could talk (it would mean something like "you screwed up"), with only 16 k, it would have been absolutely right. Something told us that we were moving away more and more, we were doing it so slowly that it was hard to realize ... that "something" is usually called "lack of enthusiasm", a kind of "mental warning" subtle, but which it is impossible to escape from. There was only one way to "turn it off" ... pulling the fuse, perhaps!?

Starting the latest version also in yellow was half a mistake that, although it consumed much of our time and energies, at least helped us realise what works and what doesn't.

But what prompted this sudden change of direction?

We were not seeing a true GT, we urgently needed a spark to keep going, whatever,, a line, a shadow ... a ...

... Of course! A COLOUR !!!!!!!

- "we were always talking about it", we reproached ourselves.

We did not need great speculations and convoluted analysis to understand what went wrong, it was enough for us to pause a few minutes and ask us what a GT is for us. Gone were the days when we were satisfied with the red... now we needed the greatest realism.

Because, the Ford GT, the real one, the one thousand times admired and imitated ... "that" GT ... there is only one ... the "LE MANS"! with its incredible combination of light blue with a (single) orange band opening at the nose. Hundreds of combinations have been tested (some very striking and beautiful) but the combination of which we are speaking has been, for us, the best of all, to the point of fully defining the model.

But if there is a qualifier that perfectly defines the Homínidus-AFOLus it is "totally insane" ... "From what magical hole of candy illusion we would be able to draw all the parts we need in "Medium Blue " ???

We were at a crossroads. We either retreated in the most dignified manner, i.e. without saying a word and racing around the skirting board! (we are nice people, huh?) ... or ... we did some "crazy thing" to take us out of this empty argument (we are nice people, huh?).

Testing with the light blue gray was the closest we could get to the desired colours, so we had to go all the way before fainting because of being totally and absolutely fed up. It was not necessary to wait long, with the first parts in gray and orange arranged we realized the wisdom of the decision ... the car already had a "suit" and we only needed to look for the right size.

Apart from size differences between the yellow model and this one, we found many others differences of a conceptual nature. We tried to pay special attention to detail and tried to capture and synthesize its essence of the car as best we could.

We have reproduced, with more or less perfectly, but accurately, the air intakes on the hood, the shape of the headlights and above all, the nose (one of the weaknesses of the previous model), without forgetting the rear, which is as characteristic as the front, or even more!. This final part of the car "goes up" to finish in a sort of mini wing (seen in profile it looks like a meringue), the "bottom" is so high that it leaves a view of the footprint of the tires and the tails are bent to close behind the rear vaults ... it proved difficult to find something that served us, but the slope 4x4 together with the accompanying arc 1x6 is ideal.

Another detail that is essential, and which we ignored in the two previous versions, is the use of wheels of different diameter in the front and rear. It is vital! ... Therefore we don´t hesitate in saying that any attempt to replicate this model omitting this detail ... is far from the image of Ford "Le Mans". We would have liked the rear wheel to fill the gap better, but we are pleased to have managed to at least "suggest" it.

We wanted to reserve the last few lines to comment in some details of the tires. From the first time that we saw similar wheels on BrickShelf (built up, not using standard ones) we have wanted to try to create our own ... we liked the result we got with the Porsche and Citroen tyres so we did not want to go without them in this new model ... in general, they give a unique-extra character to the MOC.

The end result ...it´s at consumer's taste but, for better or for worse, this time we believe that we have reached our ceiling (or touched bottom, depending on how you look at it.!!!). Will there be a fourth version?, Did we say this would be the last? ... Well ... the only thing we can assure is that every night we pray to St. "Medium Blue". Who knows, maybe one day he will hear our prayers.

In any case, it´s very strange that every year and a half we have an unbearable "GT " itch...

... Our mother would blame it on "worms" ...

... we blame it on the "LE MANS Fever"! ■

GBCP

A Pneumatic Excavator as GBC Module

Text and pictures by Jetro

Next to MINDSTORMS, Pneumatics are one of my favourite LEGO® elements. They may not appear to have much in common, at least at first sight, but building this Pneumatic GBC module has taught me that they are more similar than I imagined.

Inspiration

When I first started building GBC modules I looked to the internet for inspiration and started off by rebuilding a couple of Philo's modules [1]. I also scoured Brickshelf for modules and had a good look at the videos available at Steve Hassenplug's GBC website [2]. One of the modules that stuck in my memory was a back hoe [3] that used two pneumatic cylinders to raise/lower the arm and open/close the bucket.

I liked the idea, but the module used an RCX to control the valves and the motor in charge of turning the back hoe. I wanted to add another movement to the arm and therefore needed a way to control four movements (bucket, bend arm, arm up/down and rotate) but an RCX only has three motor ports.

Then I remembered the turning mechanism of the 8868 Claw Rig: two pneumatic cylinders that work in opposition to turn the cabin on the back of the model. That meant I could do all movements using pneumatics and wouldn't need any motors at all. The secondary model of that set uses a closed loop circuit that continuously alternates two actions. After learning a bit more about pneumatic sequences [4] I started working on the sequence I'd need for this particular module.

Pneumatic programming

An RCX (or NXT) is a programmable unit that can switch motors on and off as a result of either timing or inputs [5]. A pneumatic cylinder/ valve combination can do something very similar. It can be used as a timing mechanism. It can respond to the input of another valve. It can even be use to create logic control circuits. And finally, by adding these functions in the right sequence, you can 'program' a pneumatic control circuit.

I started out by creating a type of test board: on a 32x32 baseplate I placed a number of cylinder/valve sets and started building parts of the circuit in order to combine them later. The four movements of the module are the following:

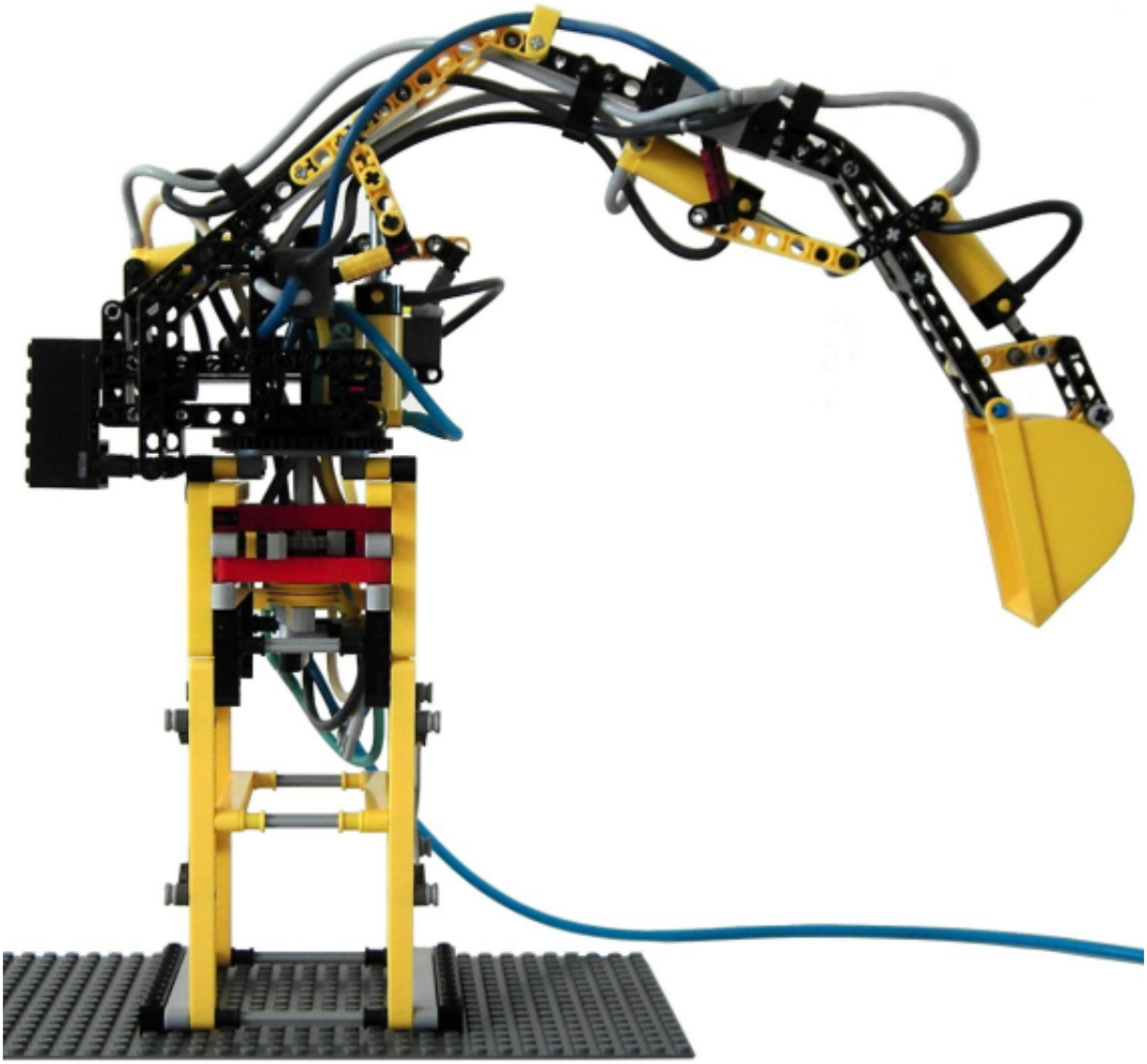
Arm up/down
Arm close/open
Bucket close/open
Turn

In order to describe the movement of the cylinders I'll use the convention proposed in Kevin Clague's article about pneumatic sequences: A^C = close/contract A and A^X = open/expand A. The sequence that is necessary to make the excavator module work is not a straightforward A B C D, but rather the more complex A^C B^C C^C A^X D^X B^X C^X D^C[6]. As can be seen B and C always follow the same order. The other sequences however are not that simple. Both A and D act on B, but they also act on each other. This meant that I had not only to include more valves, but also an extra cylinder order to prevent one of the cylinders receiving pressure on both the bottom and top port at the same time.

My first intention was to have a control circuit on the baseplate and parallel working cylinders inside the excavator. However, I quickly realised that due to the effort this second group of cylinders had to make they could not work in parallel to the cylinders acting on the valves because those moved much faster and the cycle was never correctly executed. This meant I had to include the vales inside the excavator. Finding the right geometries was an interesting challenge that has taught me a lot. In the end I decided that the cylinder acting on the bucket did not need to finish its stroke completely before the arm draws it closer to the base of the module. As a result, this is the only working cylinder that has no valve attached to it and works in parallel to a control cylinder on the cab of the excavator.

Studless design

I started building the module using Technic bricks with the traditional studded building techniques, but I kept running into problems with geometries for the arm and couldn't seem to find a satisfactory design in terms of functionality and aesthetics. Then I



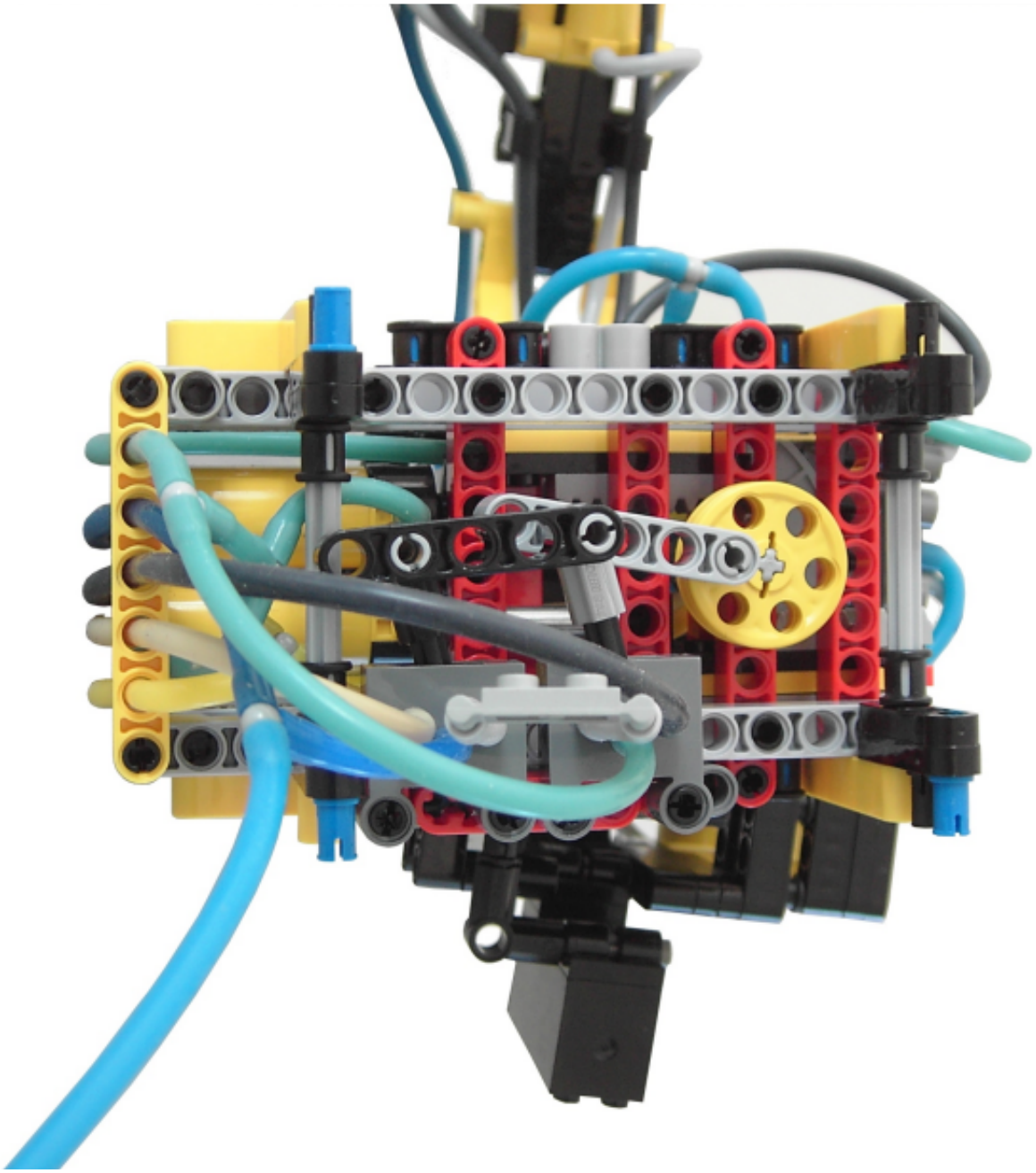
decided to make a radical change and virtually started from scratch again, only this time I used only liftarms. I was surprised to see how easily things fell into place and although I still had to rebuild the model several times the result was quickly both reliable and reasonable good looking. The only studded parts I used in the cabin were the counterweight and some plates to keep it in place.

At first I didn't find a satisfactory solution for the valves controlled by the cylinders in charge of turning so during the first official run of this module at the HispaBrick 2008 the valves were operated by a parallel control cylinder. This worked well for a couple of hours, but after that I started having problems with the synchronicity of the control cylinder and working cylinder.

In the initial design I used a studded base. In the second version this base has been changed for a studless design which is not only more robust but has also allowed me to include two valves in the bottom of the module so the working cylinders act on the valves directly.

If you want to see the model in action there's a video of the first version on YouTube [7], and you can see it live at HispaBrick 2009.

[1] www.philohome.com/
[2] http://www.teamhassenplug.org/GBC/
[3] http://www.brickshelf.com/cgi-bin/gallery.cgi?f=121269
[4] http://www.kclague.net/Sequencer/index.htm – You can find a translation of part of the article at HispaLUG: http://www.hispalug.com/foro/index.php?topic=6763.0 - and the webpage of C.S.Soh's http://www.fifth-r.com/cssoh1/contents.htm
[5] Of course a RCX (or NXT) can do much more than that, but these are the basics tasks that a lot of robots built with MINDSTORMS do
[6] Of course D represents two cylinders that work in opposition, but I have considered just one in order to make the description easier.
[7] http://www.youtube.com/watch?v=4diUt7yXBMs ■



Calypso

If it just could float

Text and pictures by Henrik Hoexbroe

Facts about the MOC:

Length: 115 cm
Width: 19 cm
1:50-scale that is: minifig-scale
Weight: 5900 g
Parts: 25,000 (estimated)
Construction time: 4 weeks, but 2 weeks awaiting the arrival of some parts.
Finished: June 13, 2009
Builder: Henrik Hoexbroe

The highlight of this "MOC" is the hull of the ship, where I have used the technique of combining 1x2 bricks taking advantage of the small tolerance between each brick to shape the curve. After a failed attempt 6 months before, I knew that this technique was only allowed to make the part of the model above the water. I still wanted to make a boat without pixelization in the hull. I would have liked to build a sailboat, but I knew there were no appropriate bricks to build the masts, so I decided to build a research ship, resembling the famous Calypso - although I was sure I didn´t have the pieces to build the Calypso itself - because a research ship gives a lot of play opportunities having laboratories and experimental vehicles on board. I spent the first week building the hull and decks and solving technical problems.

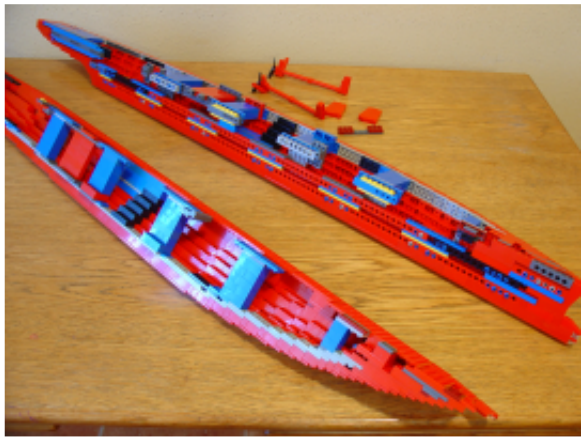
Using my whole collection of parts, I discovered that I could make a scale copy of the ship because I had enough parts due to the favourable combination of hull colours of the Calypso, "half and half" black and white. Also, alternating between 1x2 and 2x2 bricks whenever I could, I saved enough 1x2 bricks to make a boat that is 115cm long! The next step was to build the decks. I wanted to do it in "tan", but I knew, from the previous failed project, that I didn´t have enough tan parts. In the end I opted for inserting gray plates between the tan parts which gave an effect of "wood" on the floor, saving 25% of the tan parts. I think that 90% of my tan parts come from a single Creator set, the 4956. The floors only lean on the hull. Again to save parts, the floors are 1 and 2 "studs" thick. The deck has to fit with the hull, resting on a stud or a tile.

In several places I have placed holes for racks or other attachments. Again with the purpose of saving tan pieces ;-)

In order to stretch and optimize my collection of parts I had to redo each part several times, and as each part depends on others, I didn´t delay in making all the construction modular for easy handling.

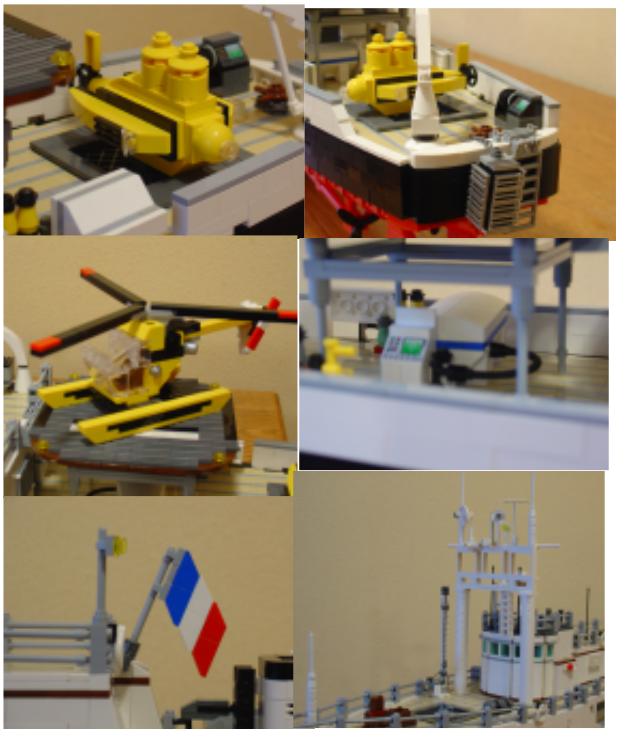
Thanks to this modular construction I could temporarily build up my construction to evaluate the final appearance, and dismantle it in parts to keep building. Although the ship was designed to use only a thin line of red bricks (thickness of a "plate") on the bottom, indicating the colour of the hull below the water, I decided that this MOC deserved to have the entire bottom of the hull. I also decided I could do more tan build a boat inspired by the Calypso, I could make an exact model to scale!

As the hull was without pixelization due to the curved wall of 1x2 bricks, I didn´t want to destroy the "studless" aspect it had, so I began to use a technique using slopes of 45 and 30 degrees, which I used in a previous "MOC" (a German submarine class VIIc). Putting the helmet upside down, I began to "draw" one side of the hull, and then copy (mirror) the other side. The red hull has 3 parts, the two sides and a central structure of Technic-beams.
The boat only leans on the red part, and stays centred by means of guides (so you can take out the rest of the ship to play with, as it is completely smooth at the bottom)
The propellers are from Fabuland line.
In this area of the boat the lack of Slope 30 degrees is especially noticeable and I think it could be improved a lot...



I decided that the construction should be as accurate as I could, and I shouldn’t miss out on certain emblematic details;

- The mini-submarine designed by Jacques Cousteau
- The anti-shark cage
- The helicopter
- The decompression chamber
- "Vive La France"
- The impressive array of antennas



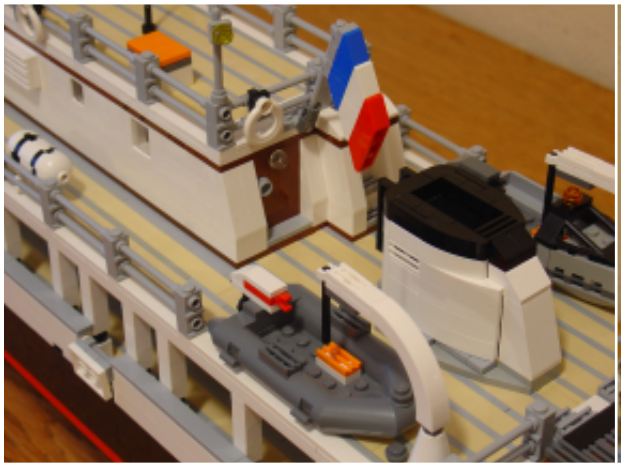
- Other details are: the submerged observation chamber, the platform for the helicopter with the letter "H", all the lifeguards and their positions in the railings...

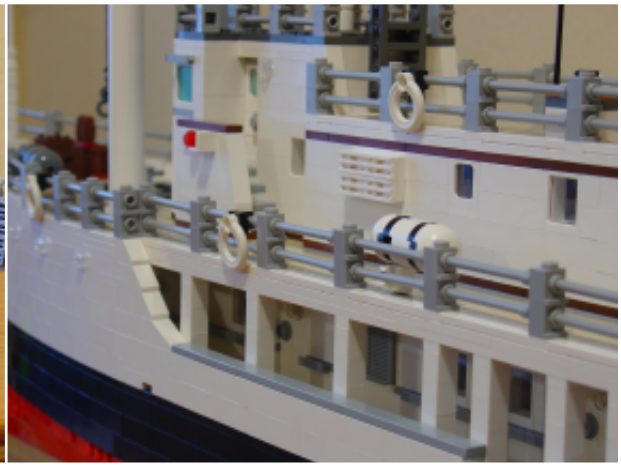
What the MOC does NOT have, is an interior design. Since I needed to use some 2-stud thick parts in the hull, there was no space to reproduce the interior. The hull of the ship also has many support structures inside to maintain its shape which don’t allow interior decoration.

Trivia: The Calypso started out as a BMYS class minesweeper with the hull entirely made of wood. It was build in the USA in 1941 and successively "Lent-Leased" to England, where it served in the Mediterranean Sea in 1943 with the name HMS J-826, until 1947 when it was retired from active duty, and was sold in Malta.
It served as a ferry in Malta for 3 years until 1950. It was there that is was given the name "Calypso".

The Irish millionaire Thomas Loel Guinness bought the boat in 1950, and rented it to the Frenchman Jacques-Yves Cousteau for the symbolic price of 1 franc per year. Cousteau turned the ship into a floating laboratory for oceanographic research.
The ship was equipped with advanced scientific equipment, including submarines. underwater "motorcycles", an observation chamber 3 meters below the surface and a platform for a helicopter.
With the Calypso, Cousteau embarked on a series of journeys that took him all over the planet. Even to the most inhospitable areas. From these travels came many television documentaries about nature at sea. These adventures have been broadcast on television worldwide.

The ship was sunk in an accident at the port of




Singapore in 1996. It was resurfaced after a couple of weeks, and brought to the port of Marseilles, where it was decaying for a couple of years.
Cousteau died in 1997, and was buried in Notre Dame in Paris.

In 1998 the ship was transferred to the Maritime Museum in La Rochelle. The intention was to exhibit it. Unfortunately, there were legal and financial problems, and the restoration could not begin as planed and the ship continued decomposing more and more.
In 2004 Loel Guinness sold the boat, but the Société Cousteau has already succeeded in organizing the restoration which now in 2009 is progressing as planned!
The Calypso is now at the Piriou shipyard in England, and restoration can be followed on YouTube on the Internet.■

Raise the "Drawplate"!!

The history of Castle in Spain

Text by Rick83

Pictures by Rick83 and LEGO® Iberia S.A.

The dark age of history span from the fall of the Western Roman Empire in the year 476 to the capture of Constantinople by the Turks in 1453. It was a period of almost 1000 years when humans struggled daily to survive and overcome the great epidemics and famines that ravaged Europe. But although they were terrible years, their secrecy and darkness have fascinated many, perhaps due to the magnificent castles, siege weapons and armour of warriors that have survived until these days.

The knights, with their purity of soul, their word and valour make recreating this world into something magical. So LEGO® didn´t leave this vein untapped and, as its competitor Playmobil®, it released several medieval sets during the eighties and nineties, reaching the present day with the sets from the "Fantastic era".

Very few people know that the first LEGO castle was not the legendary castle 375 or "yellow castle", but it was a promotional castle launched with the collaboration of Weetabix, a brand of biscuits in the UK, in 1970.

The era of LEGO Castle itself began in 1978 along with the new articulated minifigs, which have given life to our hobby.

Anyway, the era of the LEGO Castle also has its High Middle Age and Early Middle Age, and we can distinguish four main stages of Castle line, dating from:

- 1978 - 1983
- 1984 - 1992
- 1993 - 2000
- 2004 - 2009

The history of this line in Spain has always been tragic. Many sets arrived later than in the rest of Europe or did not arrive at all, leaving some lines

lame and poor in detail and sets.

We will analyze these stages to find the differences and innovations during the 31 years of Castle.

The first stage is characterized by having only three very simple sets. Today we might consider these constructions almost childlike, with horses made of multiple parts and very simple construction techniques. Still they were Best-sellers, and today they are highly prized sets and wanted by those who love collecting.

This series consisted of:

- 375 (6075 U.S.), Castle (yellow) which appeared in 1978
- 383 (6083 U.S.) Knight´s Tournament
- 677 (6077 U.S.) Knight´s Procession

What is the difference between the 1st and 2nd stage?

- The introduction of new parts to shape the castle. The most important one a panel to build walls (Bricklink ref.4444)
- The appearance of LEGO® horses and saddles.
- New war equipment (bows, quivers, spears and axes)
- New additions to the minifigs like hats with mesh, feathers and peaked hats for the princesses.
- New golden patterns in minifigs and shields.
- For the first time gray parts are used in large quantities.

During the 2nd stage we can find 5 castles that correspond to sets of knights with different standards (crossed axes, lions, falcons, etc.) that differentiate between each other and create a game between good and evil at the free choice of the player.

- 6080 King's Castle
- 6074 Black Falcon´s Fortress
- 6081 King´s Mountain Fortress
- 6085 Black Monarch´s Castle
- 6086 Black Knight´s Castle

Series that appeared in this period:

- 1984 Knights of the Lion and Knights of the "crossed axes
- 1986 Black Falcons
- 1988 Forestmen

What are the differences between the 2nd and 3rd stage?

Limited series like the "Forestmen" (Robin Hood-like) saw the light during those years, but only with few sets in order to complete the collection. In 1992 LEGO® introduced the first line with a clear beginning and an end, i.e. with a finite duration in time. These pioneer sets were the "Wolfpacks"

- 6075 Wolfpack Tower
- 6038 Wolfpack renegades

In 1993 we find the first complete series of a specific theme. In this case it was the "Dragon Knights", in which for the first time mythological creatures (the dragon and the wizard) appear. LEGO castle begins its fantastic era, drifting away from the classic sets. Besides LEGO launches "groups" of sets focused on one particular line consisting of a main castle, a tower, some sort of carriage or catapult, a medium set like a fortress and a pack of minifigs.

- More specific castle parts appear, like the corners of the towers
- New helmets with animal features (dragon or bat shaped helmet)
- Chrome parts (crowns and swords)
- Ovoid shields, new spears and new longer arches

The progressive Juniorizatión [1] of the sets starts during this period.

Series that appeared during this time:

- 1992 Werewolves
- 1993 Dragon Masters
- 1995 Royal Knights
- 1996 Dark Forest (not available in Spain)
- 1998 Fright Knights
- 2000 Knights Kingdom I

What are the differences between the 3rd and 4th stage?

After almost 4 years of disappearance, the Castle started to reappear in 2001 with the reissue of 2 mythical sets, included in the now defunct Legends [2] series. The sets that were reissued are 6067 (Guarded Inn) numbered 10000 and 6074 (Black Falcons Fortress) numbered 10039

LEGO realized the potential of collectors and in 2002 launched the first set designed by an AFOL, the 3739 Blasksmith Shop. Currently we have the 10193 Medieval Market Village, another set designed by Lego enthusiasts.

We have to jump to 2004 to find the next stable Castle series, which was intended to be a continuation of Knights Kingdom I (named Knights Kingdom II). This new series introduced very large parts and continued the trend of LEGO in the early years of the new century, using quite infantile elements. As the notable novelty of this new series the knights were dressed in very bright colours, with red, purple, green or blue armours.

In 2007, after several attempts to recapture the classic lines, LEGO once again bet on the traditional series, creating more realistic castles and models. With a theme that may bring to mind the "Lord of the Rings" called "The Fantastic Age" the mythological story with orcs, trolls, dwarves, undead and dragons reappears.

This time the models are more detailed and present a large number of realistic elements. The soldiers and knights have no strange colours and their clothes are more faithful to the medieval armour. Furthermore most of the minifigs have two expressions, a calm face and another one with an expression of terror, giving more opportunity for playing and much more importance to the minifig.

With this new approach to the minifig, packs of 5 minifigs are released, each with a dress and complements of their own (for the moment we can find packs of soldiers and knights, undead, dwarves and trolls)

The year 2008 brought one of the best sets in the recent years as it contains completely new minifigs. This was the Medieval Advent Calendar 7979, a set that lasted barely 2 months and sold out with a breathtaking speed as it contains the coveted harlequin.

But one of the star sets that was desired for years is the Medieval Market Village, set number 10193. This set is a scene with two buildings, a stall and a tree as central elements, something long demanded by all LEGO AFOLs because it is the first large set capturing a normal medieval life scene. Being created by AFOL builders, this set focuses on adults and contains countless details and curiosities, as well as introducing a cow, a new animal which appeared in 2009 and a turkey, a rare element only present in Bellville sets.

During these years we have also seen: A medieval chess, orc queens and kings (very cute), key chains, magnets, a kind of Bionicle Knights, skeletal horses, orc boats etc...

Someone will wonder about the Ninja series and

Vikings, but we will not consider them in the Castle series although they have some similarities to the medieval sets.

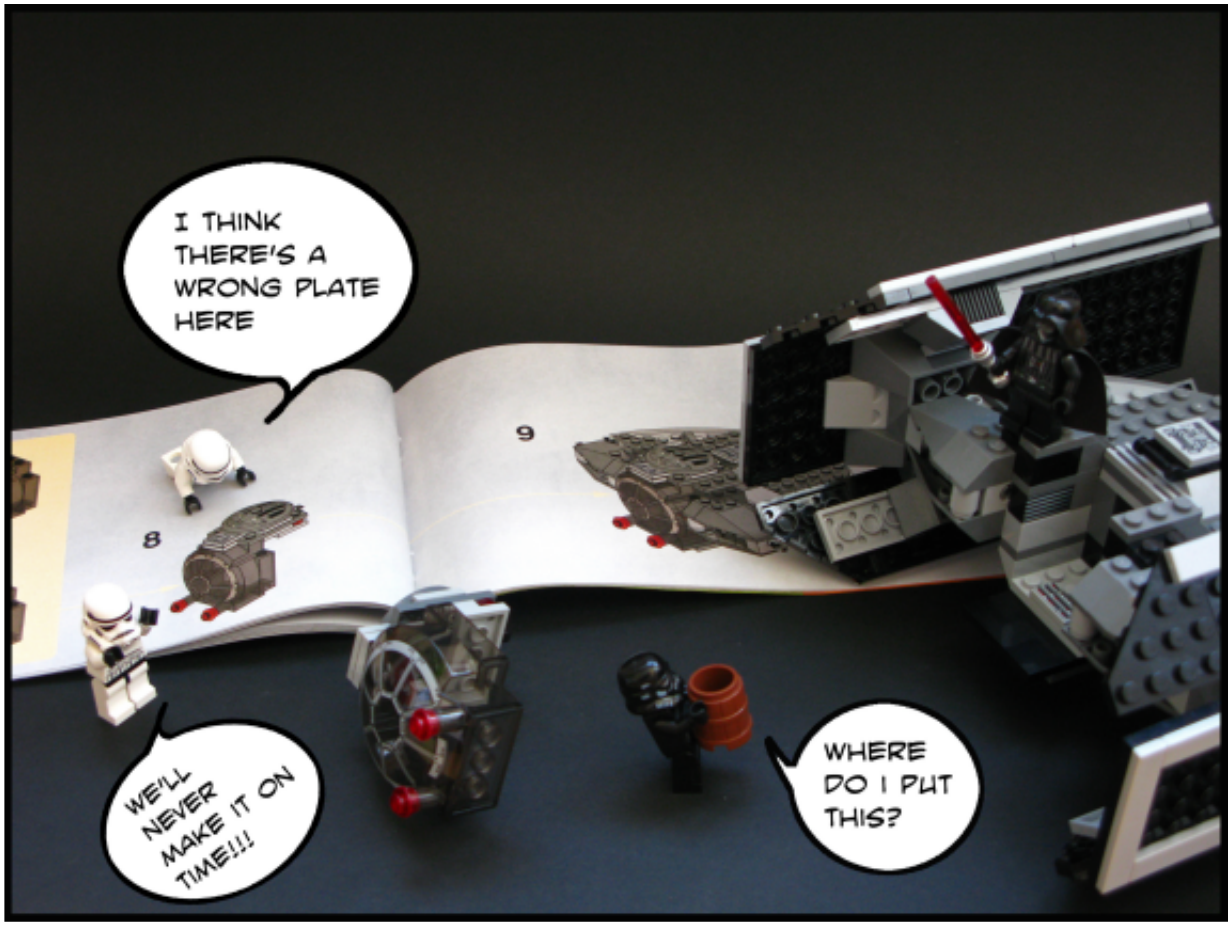
In conclusion, 30 years of castle go far, although LEGO® has practically limited itself to building castles, catapults, battering rams. It forgot about the people who inhabited the Agro, citizens and businesses, while Playmobil® did not forget and knew how to create these accessories, which today are paid in gold. LEGO's new policy is doing much to restore this forgotten part of history and create sets that complement those holes. Let’s hope we will not have to wait another 30 years to see another set like the Medieval Market Village.

And finally some curiosities about Castle

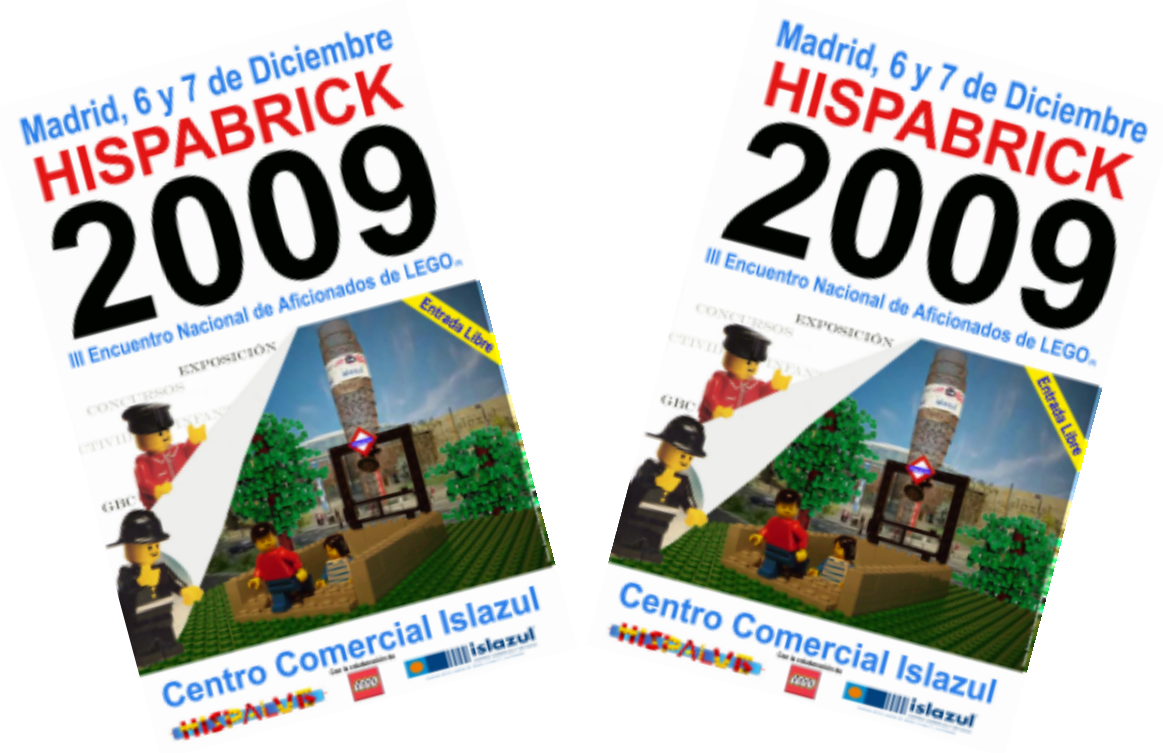
Helmets "without visor" were designed for use in the Castle line to later ad visors. These helmets were later also used for Space and City, but the visors never appeared. The main problem was the fragility and the little grip of these parts.
The 6071 Forestmen's Crossing, which appeared in 1990 exclusively for the USA, has a very rare minifig, known as the forestwoman. It is one of the few female minifigs outside the typical medieval princesses.
In the first edition of the Guarded Inn (Set number 10000) the horse was not white. By mistake it was a green horse with Indian characters. Shipments from Shop At Home included a white animal in a separate bag.
The 1st stage of Castle in Spain runs from 1979 to 1984 (consisting of the yellow castle) and the 2nd stage sets did not come until 1985 while in the rest of the world they came out in 1984.
The first castle sets (1984-1992) were designed to build a great wall and join the sets together. In fact they were the first modular buildings.■

Stupid Studs

by Vrykolakas and W3ird



"After certain incidents, Lord Vader™ took the decision of including a spatial vision test in the Trooper Academy for the Imperial Army"



Building trees (V)

At times, apart from having a beautiful or amazing design, a tree needs to follow certain size restrictions for allowing better transportation or for being able to store it away without taking much space.

Text and pictures by Legotron

The challenge here was to build a tree that fits specific dimensions. Since our goal was being able to take these trees to different events, we needed to design something that was easy to transport and didn't take much space. Most of the trees we built until now were too bulky and fragile, which limited the amount that we could take around, not to mention that they always ended up rather damaged. So the new design had to fit in a 25x15x9 cm boxes, at least 4 of them without taking anything apart.

Going for a walk around the parks in the city was enough to find the ideal tree. The most interesting one for using as a reference in this challenge was a cypress. Tall, tough and with a thin treetop. Limited by the box size, 25 bricks of height was the only reference. The other key point was the treetop. It needed to be really thin, with the branches as close to the trunk as possible. In addition to the usual 'plant leaves 3x4' in green used for the foliage, we used a limited amount of pieces, since we needed to build multiple trees.

The final design uses the following inventory of parts:

List of needed parts.

As with the earlier articles, we used BrickLink[1] as reference for the inventory:

For the base:

- 1x Plate 4x4, in Green

For the tree trunk, supposing the tree is around 25 bricks tall:

- 13~15x Round Brick 2x2, in Brown.
- 2x Cone 1x1 Without Top Groove, in Brown.
- 2x Modified Brick 1x1 with Headlight, for the treetop connections.
- 1x Bar 6.6 with Stop Ring, in Brown for the end of the trunk.
- 4~5x Round Plate 2x2, in Brown for adjusting the height of the trunk.
- 12x Hinge Plate 1x2 Locking with 1 Finger on Side, in Brown for the branch connections.
- 12x Hinge Plate 1x2 Locking with 2 Fingers on End, for the branches.

For the Foliage:

- 30~40x Plant Leaves 4x3, in Green.

How to build.

With such a limited inventory and simplified design, the start is rather easy. On the Plate 4x4, we put a Round Plate 2x2, and up to 6 Round Brick 2x2. We could add a Technic Axle 7L if we want to make the trunk more robust, but then an additional Round Plate 2x2 would be necessary for hiding it.

At this height, slightly taller than a minifig, we can start putting the first pair of hinge plates for the lower branches. This pair of hinges should be the Hinge Plate 1x2 Locking with 1 Finger on Side (for the trunk) connected to the Hinge Plate 1x2 Locking with

2 Fingers on End placed with the studs facing the opposite direction, at the next possible angle after 90 degrees.

Then we add another Round Brick, and again a new pair of hinges, just like before but turned 90 degrees, so all 4 sides of the trunk have their own branch.

After that we increase the trunk size by 2 Round Bricks, followed by another 2 pairs of hinges separated by a Round Brick, just like before, but without any inclination. Then we add a Round Plate 2x2 for making it robust.

Repeat all this again, and with the additional 5 bricks of height, we are done with the thicker bit of the trunk. If a bigger tree is needed, all you have to do is repeat this step a couple more times.

The main branches are built so all that is left is to finish the end of the trunk.
For that we'll need to put a 1x1 Cone on top of the last Round Plate, followed by a Modified Brick 1x1 with Headlight placed sideways, another cone, another Modified Brick 1x1, again sideways but turned 90 degrees in relation to the other one, and a last cone.
Then we put a Bar 6.6L with Stop Ring through the structure to increase its sturdiness, and we are done with the trunk.

The next step is all about adding the foliage. We start with the bottom part, adding 2 Plant Leaves 4x3 on each of the 4 angled hinges, one facing down on the lower stud, and the other facing up on the top one. Since the studs are facing outside, the leaves hide them.

Then we place another one in the inner bit of the hinge, angling the leaves to cover as much of the trunk as possible. After that we move on to the middle of the tree. A couple of leaves per branch should suffice, but be careful with the trunk so it doesn't fall apart.

For the treetop, we add leaves on each Modified Brick 1x1, this time pointing up, and again, we add another one Plant Leave 4x3 to one of the leaves we just placed.

The tree is basically done, but we can have some finishing touches (moving the leaves around, adding a couple more, etc...) if needed. And following these steps we have our finished tree.

Even though we didn't use many parts, it looks rather pretty.

In my case, I was able to put 6 trees in a box, along with some simple cardboard dividers. And the best thing is that not many leaves fall during transportation, so the designs achieve, in a satisfying way, the required premises.

References:
[1]Unofficial site for the sale and purchase of LEGO® pieces on the Internet: http://www.bricklink.com■

LDraw Tutorial (VI)

Publishing instructions

Text and pictures by Jetro

After all the work you've done to document your MOC and get some nice renders you must be asking yourself if there isn't a better and easier way to show the construction process of your model. The answer (obviously) is: Yes! But before we start thinking about publishing let's get back to the MLCad and prepare the file for publication.

Although I mentioned steps in the first part of this tutorial it is quite likely they weren't the first thing on your mind while preparing your virtual model. As a matter of fact, depending on the complexity of the model it isn't always practical to start building the LDraw file in the same way you would build the physical model. So now you have a lengthy list of parts and it is difficult to decide where to start and how to get organised. Let me give you some pointers:

- Identify which part of the model you want to start with in order to organise matters. It doesn't need to be the part the construction should start with. Simply divide the large file into manageable chunks.

- Drag all the parts you want to work with to the beginning or the end of the parts list and add a good number of steps by way of division between those parts and the rest. If you select several parts at once (maintaining Ctrl pressed while you select them) even if they are not contiguous in the parts list, when you drag them to another part they will end up all together.

- Group the parts you are not going to work with (Ctrl+G). This way if you accidentally try to select one of them, the whole group will be selected and you will notice immediately that you are trying to select the wrong part. At the same time, doing this it is easy to hide all those parts in one click so you can work more comfortably with the rest of them.

- Save your work frequently. Since MLCad has no 'undo' option this is the safest way of rolling back if you do make a mistake: simply click on 'open file' (don't save the file you are working on this time!) and open the file you were working with again.

- Remember that in order to check how the steps are coming along you only need to press F2 to enter view mode (and F3 to get back to edit mode). This way you can see your instructions step by step and check if you haven't added parts in a step to fit in with parts you haven't included yet.

- If you notice there <are certain part of your MOC that could be built separately and then added as a single part you can do so in the following way:

  o Insert a comment before and after the set of parts you wish to extract from the construction and turn into separate file and then save the file.
  o Open the LDraw file you are working on in text editor [1].
  o Locate the section you have delimited with the comments, select and cut it (Ctrl+X)
  o Paste the section in a new text file.
  o Copy the first six lines of the original LDraw file and add them to the top of the new file you have created. This is the header every LDraw file should have. You can place the name that will identify the file in the first line and the name you save it with in the second.
  o Save the file with the extension .ldr and also save and closet he original file.
  o Open the original file in MLCad. You will see that the part you have extracted is missing. In order to include it again you can use one of two methods: (Choose the second if you are going to use MPDWizard [2] to create the MPD file and include any unofficial parts.)
    ● Include it as part of an MPD file. Go to Multipart and select "Import model"
    ● Include it as a new part (Edit > Add > New part …)
  o You may have to move/rotate the part top put it back in the right pace, but since you are now working with a relatively large block this should not pose any serious difficulties.

- There are two interesting options in the "Edit > Select" menu that can make the job easier: "same type" and "same color". This reminds us that at times it can be useful to use colour coding in order to identify which parts make up a certain section of a MOC.

The right angle

In addition to having the parts organized in steps, it may be necessary to see your MOC from a specific angle in certain construction steps. For this purpose you can use the “turn step” command. This tool is very similar to the normal steps and as a matter of fact, including a turn step as the same effect as including a normal step. In addition a turn step allows you to set a specific angle from which the MOC will be seen from that point onward.

The window that opens to configure the angle is very easy to use. You can give precise angles for each direction (x, y and z) which by default will be absolute angles. Underneath you will see a preview of the model you are working with. You can also use that preview to drag the model to the right angle using your mouse. If later on you need to change or adjust the angle you can do so by double clicking on the line that was added when you inserted the turn step command.

Unfortunately, using angle steps will result in all four views in the MLCad working area showing you the model in 3D and from the same angle when you try to see the step by step instructions in view mode. However, if you publish the instructions in a different and more accessible format (as you will see below) the turn steps are well worth including.

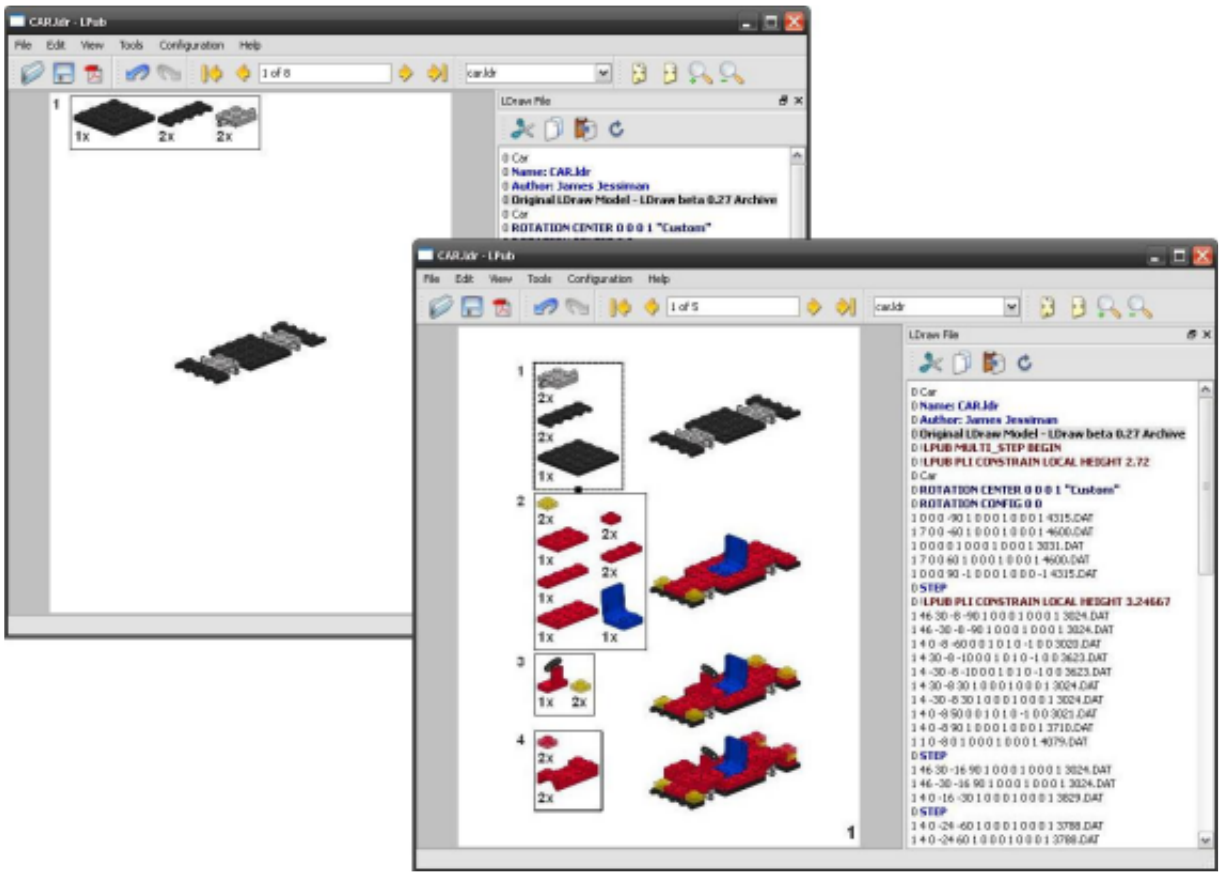
LPub

LPub is LEGO® Publishing software. It uses LDraw tools to create step by step instructions based on LDraw files. The first versions of LPub were quite complicated to use. They relied on Pov-Ray for rendering and although the quality obtained is very good, this is quite a lengthy process. With version 4, LPub has changed in many ways. It no longer uses Pov-RAY but now relies on LDView or LDGLite for rendering. This speeds up the process and renders are still of enough quality for the purpose they are made for. Previous versions of LPub output png images and could generate the necessary html code to create an online instruction set. LPub 4 outputs a PDF file.

Although some may miss the higher quality renders and the ability to easily create the html container files, LPub 4 is a huge step forward because it gives you step by step control over what you generate and because the LPub instructions are included directly into the ldr file they can easily be adapted or changed later on to generate a newer file without having to go through all the configuration steps again.

Installing LPub [4] is pretty straight forward. Since LPub needs either LDView [5] or LDGLite [6] to render the steps make sure you have one of these applications installed. During setup LPub will ask you a few questions about where your LDraw parts library is as well as the location of the LDview and/or LDGLite and if you want to work with cm or inches. You can change these setting later on in the Configuration > Preferences tab.

To test drive the application we will have a look at the CAR.dat file that’s in your LDraw\Models folder. Open it by going to File > Open or clicking on the first icon on the icon bar. You will notice it takes a little while for the file to open. This is because LPub need to get LDView to render the parts for the Parts List and the model before LPub can show you the first page of the instruction manual. Since the LPub



commands will be written directly into the file you may want to save the file with a different name first (File > Save as…).

It would take too much time to show you all the options available in LPub and since this is only a first contact we'll simply try to make a short instruction booklet for the car of the example model.

Take a look at the parts list. If you click on it you will see a black square appears on the bottom line of the black rectangle around it. If you click and drag the square you will see you can very easily change the way the parts are displayed. Now click on the model. Again there is a change. This time there is a square outlining the model which you can drag to any convenient location on the page.

In the icon bar you can see you are on page 1 of 8. 8 pages for such a small car is overdoing it a little so we will put several steps on the same page. Right click on any free part of the page and select "Add Next Step". You will notice the changes you made to the size and position of the elements related to the first step disappear, but we'll worry about that later. Repeat this operation until you have 4 steps on the same page. Unfortunately the steps plus Part Lists are quite wide, so click on the first Part List and reduce it to a single column. Reduce the Part List for the second step to 2 columns. Now the page looks a lot better.

Go to the next page and put the remaining 4 steps on it (5-8). Play with the width of the Part Lists until you like the way the page looks. When you are ready go to File> Print to file (or the 3rd icon on the icon bar) and choose a name of your liking. Click on save and LPub will print the instructions to a PDF file.

In the next part of the LDraw tutorial we will have a closer look at LPub and the many options it presents.

[1] There is a specific text editor for LDraw files called LDDP (LDraw Design Pad) which you can download at http://sourceforge.net/projects/lddp/
[2] MPDWizard is a tool that allows you to combine ldr files. It also allows you to include specific parts in the same file. For more information about this tool read the second part of this tutorial in Hispabrick Magazine 002
[3] http://www.holly-wood.it/ldraw/helpers-en.html
[4] http://www.kclague.net/LPub/
[5] http://ldview.sourceforge.net/Downloads.html
[6] http://ldglite.sourceforge.net/■

An introduction to Robotics with LEGO® Mindstorms (III)

The FLL (FIRST LEGO League)

Text and pictures by Koldo

The educational use of LEGO® is an area many don't know about. In addition to the products aimed at the commercial market, LEGO has developed a product line aimed at the educational market for the full range of ages, from pre-school to secondary education.

On the other hand, LEGO, together with FIRST, promotes one of the most widespread science and technology projects for young people: The LEGO FIRST League.

What is FLL?

The FIRST LEGO League (FLL) is an international program sponsored by LEGO and FIRST, directed at boys and girls between 9 and 16 (9-14 in the USA and Canada) which combines investigation with a series of robotics challenges in an atmosphere of healthy competition.

FIRST doesn't refer to a number, but rather it is the acronym of "**F**or **I**nspiration and **R**ecognition of **S**cience and **T**echnology". It is an organization that aims to promote interest in science and technology. In addition to promoting the FLL, it organizes other robotics competitions in the USA and Canada for different age groups starting with 6-year-olds.

A bit of background

LEGO MINDSTORMS was born in 1998 and in the same year the first FLL trial took place. From 2001 onward this project started to extend outside of the USA and Canada.

The FLL has been celebrated in Spain since in 2006 the Scientia foundation took charge of its organisation and it has grown year by year ever since. This year there are 9 locations for the classification rounds that will lead to the finals in Barcelona.

The challenges that are prepared every year are related to global problems, emerging technologies...

In 2008 the challenge was related to the environment and 13,705 teams from 42 different countries took part, with a total of 137.00 participating children and teenagers and 500,000 volunteers.

The teams

Most teams are organised in secondary schools, although there are also teams that are promoted by different associations or groups of friends. A team consists of a maximum of 10 players who with the help of a coach, work together to face the challenge and find solution using their creativity and logical thinking.

The teams may get help from mentors who provide the team with voluntary support in matters related to technical, scientific or even design issues that will identify the team.

The challenge

The starting point for the FLL is a challenge which is presented to the participating teams in September.

Although at first glance the FLL may seem simply a robotics competition it is much more than that. The challenge isn't restricted to the robots – which are probably the element that generates more motivation. The teams need to investigate and present a scientific project related to the central theme. In addition to the technical and scientific part, the FLL also has a code of conduct which sums up the spirit of the competition:

- We are a team.
- We do the work to find solutions with guidance from our coaches and mentors.
- We honor the spirit of friendly competition.
- What we discover is more important than what we win.
- We share our experiences with others.
- We display Gracious Professionalism in everything we do.

- We have fun.

All of this is reflected in the competition itself in which much more is evaluated than just the effectiveness of a robot in passing a challenge.

How the competition takes place

After a minimum of 8 weeks of teamwork it is time for the first classification round. The teams arrive at the location of the competition with their robot, computer and spare elements in addition to a good dose of nerves. For many teams this is the first time and they have a lot to learn.

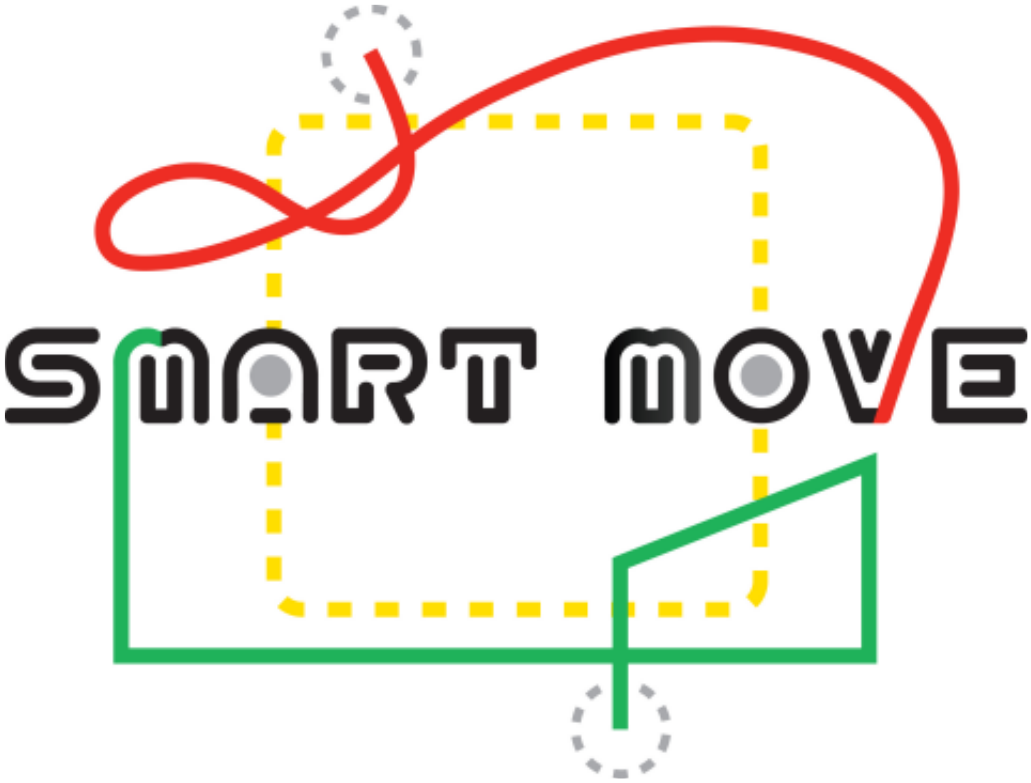
The teams have a reserved area at their disposal where they can do make their last trials and adjustments. From the moment the competition starts a strict time table marks the steps of the teams between presentations and the robotics competition.

The missions

The teams need to carry out several missions with their robots. After three rounds the 8 teams with the best scores pass on to the next phase in which they will compete to reach the finals.

Technical presentation

Each team explains to the jury how they have solved the technical challenges they have encountered while building their robot. In this presentation the applied solutions, the methodology used to solve these challenges, creativity and the organisation of the team work are evaluated.



The scientific project

The teams present their projects which detail proposals for solving real life problems related to the central subject of the year. This presentation may be done using a slide show, a theatre play, a song...

Recognition

Who wins? First off, all teams win although not every team receives the same level of recognition. In the classification round, there are 8 teams that receive a special recognition and no team can win in two different categories (the first four are related to technical matters whereas the rest are related to team work):

- Champions Award
- Project Award
- Robot Performance Award
- Robot Design Award
- Teamwork Award
- Rising Star Award
- Team Spirit Award
- Adult Coach/Mentor Award

At the finals in Barcelona there is an additional prize: the overall winner of FLL Spain. To award this prize, the robotics competition, the scientific project, team work and robot design work are all taken into account.

2009 Challenge: Smart Move

The challenge for 2009 is related to efficient transport. The teams need to propose solutions for current problems related to transport as well as design and program a robot that is capable of dealing with this year's missions.

The competition rules establish a framework that tries to make teams participate in equal conditions. One of the rules is related to the materials that may be used: unmodified LEGO® parts. There is a limit to the number o sensors and motors that can be used and the software needs to be either NXT-G or RoboLab.

On the Spanish FLL website you can find more information about this year's missions as well as the locations and dates for the classification rounds.

FLL España: http:// www.firstlegoleague.es/

FLL: http://www.usfirst.org/firstlegoleague/ ■

Cleaning parts

Our oldest LEGO® parts or the ones we buy secondhand, are not always as clean as we would like

Text and pictures by Gobernador and Blastem

One of the biggest satisfactions for an AFOL is when a friend or a relative mentions that they have a couple of sets at home from their childhood, and that they are willing to give them to you. That excitement of not knowing what you will get is just as big as the dirt layer that usually covers said gifts. Bread crumbs, dust bunnies, hairs, and the usual Playmobile items nobody knows how they ended up there... you name it.

Also, when buying a second hand set, it isn't rare to receive them with lots of dust or dirt.

So, it's time to clean those parts and bring them back to their former glory. As an example, Gobernador will use the set his friend Pucelabricks gave to him. A classic LEGO® relic, the 6680, a set from 1981. The condition when received was good, but it had quite a layer of dirt.

Blastem has also used the 8862 to graphically explain the cleaning process for a Technic set. The focus is different since Technic obviously has a different kind of pert assortment compared to LEGO System, and in a way they need a different treatment.

ABS PLASTIC

Most LEGO parts are made out of a material called Acrylonitrile Butadiene Styrene, an industrial plastic with qualities that make it perfect for the creation of our little bricks.

But what are these qualities we are talking about?

- Sturdiness and rigidity
- Resistant to hits
- Shiny, with the possibility of being coloured
- Resists low temperatures, as well as the high ones (though it isn't recommended to expose it to temperatures above 50°C)

These qualities are important, since they will be the guidelines we will use when applying the cleaning process.

PUTTING THE DUST AWAY

When we are just facing dust, that silent and stubborn enemy of ours, the solution is easy.

First we have the good old duster, basic but effective. We just have to use it lightly between the parts of the different sets, making all the movements in the same direction.

For heavy dust, we can use an air compressor, like the ones we can find in gas stations or car cleaning centers. We can also use a gas duster (canned air) like the ones they sell in hardware stores for cleaning computers and the like, but while they are the most effective ones, they are rather expensive.

GETTING READY

For giving parts a good automatic washing, the first thing you need to get is a big washing net. Using it will prevent the parts from floating around in your washing machine.

You should also get small nets (the ones used for detergent tablets). Many detergents give the nets away when you purche them, but you can probably call their hot-lines ask for a free one as well.

If you don't have any, you can also use a long string, as we will show later on, but it is recommended to at least have one net for those small parts (axles, pins, plates, bricks 1x1, etc...).

The most important thing during this process is selecting what parts we want to wash. We need to have in mind that we can't put pneumatics, electric parts, printed parts, parts with stickers, or transparent parts in the washing machine since they would be ruined. Also

we should be careful with long and thin parts, like the Flex system, flags and minifig accessories, since they could bend, break or go down the drain. But we will take care of them later.

To make a good selection, we have to divide the plates, bricks and other kinds of parts, since they tend to connect and excessive weight in each bag doesn't give a good result. As we can see in the picture, each kind is separated in its own pile, making the washing and selection process easier later on.

A good way to classify parts would be:

- Bricks
- Liftarms
- Technic Bricks (They could go together with the Liftarms depending on the amount)
- Big Plates
- Plates (all the other kinds)
- Axles and Gears
- Pins and Bushes
- Minifigs without any printed parts, with all the parts separated (legs, torso and hair, the head's printing could get erased, so cleaning them with some cloth instead would be recommended)
- Transparent parts

Parts that are excessively big, such as buckets, tires, walls, ship hulls, rocks, etc, should be divided from the rest and washed separately. In case we are using a dishwasher, we could simply put them on the tray.

Some elements we recommend not to wash are the ropes and nets that come in some sets. They are rather delicate and probably wouldn't stand these washing processes.

We also don't recommend washing sails, except in extreme cases. One thing we can do instead is ironing them, as any piece of clothing, once ironed they look as new!

Sorting the bags is pretty easy. In the corners of the big bag we should put some of the biggest parts, or the ones we have the most of (those without individual bags), such as bricks or plates. With a string we should tie each pile so they don't get mixed, but leaving enough space for the parts to move a bit. We should just keep placing the tied piles inside the bag. After that, we should put the small bags filled with the tiny parts in a way so they are all together but with with enough space between them. We should tie these as well.

Finally, we should just add the biggest parts we have left, loose so they don't smash into each other.

If you are patient enough, you can clean these manually, but if you are looking for speed, you won't have any problems with this method. Once ready for washing, it should look like this.

WASHING

Obviously, the main point of all this process. It is really important to consider these points when setting the washing machine or the dish washer:

Washing Machine:

- Set it for delicate clothes, with cold water or at around 30°C temperature. In the LEGO® catalogues 40°C was mentiones, but we only need it that hot if the dirt doesn't go away.

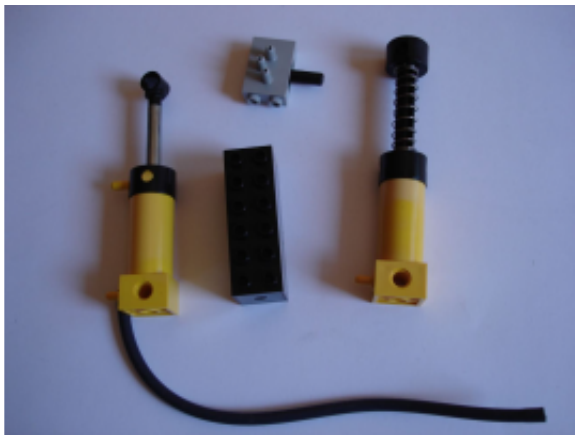
- The lowest possible spin setting. If it is higher than 600rpm, we should avoid it.
- Extra rinsing, if the washing machine has that setting.
- Detergent for delicate clothes. It is the best choice since it isn't as abrasive as the normal kind, and it protects the surface of the plastic better. If your parts have too much dirt, you might need to use bleach, but be careful, use bleach with some protecting agents. It is a bit more expensive, but a squirt of it makes the parts really clean.

Dishwasher:

- There is only one thing we have to take into consideration when using the dishwasher: the water temperature. It should be at around 30°~40°C.
- The advantage of using a dishwasher is that it doesn't spin, thus the parts don't suffer as much. But on the other hand, they come out with more water and we have to pay more attention to the drying process.
- As long as we don't put the parts through too many washing cycles, any detergent is good.

Here is a description for the rest of the parts:

- Elements that are really thin, delicate, printed or plastic parts from electric elements and pneumatics:



First we moisten some cloth with soapy water, and clean the surface until we get the desired result. Delicate parts like those with stickers are better left alone. Printed parts are fine.

With another cloth we rinse them, and they'll look just like new.

- For the transparent parts, which tend to get scratched easily, use some moist towels for cleaning glasses.

- For the metallic parts in the pneumatics first we clean them with some dry cloth and rub them with mineral oil afterwards. You can get the kind used for the razors in hair-cutting machines or electric motors. It usually isn't too expensive, and a small can will last long.

- For the metallic parts within electric elements, first we clean them with a moist cloth and right afterwards with a dry one. We should make sure they are completely dry. If the contacts are rusty, we should use sandpaper with fine grit. Most of the times, a toothbrush is enough though.

- For those parts with lots of nooks, like the pneumatics, or some bricks where the dirt is encrusted, we should use a toothbrush or a cotton swab.

There are many times when the washing machine isn't enough for putting all the dirt away, but it helps a lot.

DRYING

Once we're done with the washing, we'll pull the parts out of the net separately. If you used the dishwasher, you should pull out the big parts first and dry them with some cloth, because stains and marks tend to stay if you don't.

To air dry the parts, we need to put them with enough space between them, or shake them every now and then. A good tip is leaving the big parts (like big plates and bricks) separated and leaning on the studs. They will dry perfectly. Parts like pins, bush axles and gears, can be put on top of some cloth. If we leave them inside the net, they will take a long time to dry.

It isn't a good idea to leave them close to something warm, since the parts might get deformed with the heat. Something to highlight is that you should NEVER put the parts in the sun to dry. It bleaches the parts and might even deform them. One of the main problems linked to this is the yellowing of the parts.

If we are patient enough, we can dry them one by one, using some cloth made of a synthetic material (cotton leaves some rests). Afterwards we leave them so they dry completely.

The big parts will dry without any problem. If we want them completely shiny, we can use some cloth on them.
Now an example of the "before" and "after".■

Brick-Busters

Who you gonna call?

By Hispabrick Magazine

Pictures Brick-Busters

HM: Could you explain what tasks you perform for the community?

BB: Mainly administering a database of screenshots of swiped MOCs, which serves as witness to the problem. It is a place where any LEGO® fan can come and post a MOC that has been swiped, so that the Rightful Owner may be made aware.

HM: How and when did you come up with this idea?

BB: While noticing a very obvious swipe of Nannan's Charon placed onto the LEGO Universe creation lab by someone other than Nannan himself, a look at a few more pages turned up several more suspected swipes. Then, the Pirates 'vs' Ninjas creation challenge had a MOC that was very familiar. Sure enough, it was DARKspawn's Ninja MOC titled, "Mizu Megami Ichidou" that had been swiped! The 13-year-old user who had uploaded it also had an Iron Man MOC and a nice flying craft on his pages. I submitted a Request for Removal in the comments box of the user's page, along with a link to the Flickr page of Darkspawn's Ninja MOC. His MOC was removed from that page by LEGO Mods right away. It took a few more days for it to be removed from the special LU News page about the Pirates 'vs' Ninjas building challenge; apparently the News area of LU is maintained by LEGOUniverseMaster.

So many other swiped MOCs became apparent to me that I had to create a bookmark folder on my computer. Although placing comments with links to the Rightful Owners resulted in removals, it began to feel like sand sifting though my fingers. There is a never-ending supply of wonderful MOCs on the Internet. There needs to be documentation of the problem.

Of course I am not, by any measure, the first to spy swiped MOCs. Many well-known AFOLs have been sending e-mails to LEGO to ask for MOC removals. Yet, that is not documented. It is also not the procedure they wish to have in place; e-mails to LEGO customer support are a burden through that channel, whereas comments placed directly onto the page of the swiper makes it far easier for LEGO.com Moderators to deal with the problem. They can verify and take action without embarrassing the swiper, because they don't make Request for Removal comments with links public on the page.

After sharing my own findings to the web master of BrickBuildr, Mike Huffman, and receiving his replied opinion of this indeed being an issue, I joined Flickr. There I saw a few scattered topics on the problem, along with some screenshots. I decided to create a group -- a database to host these screenshots -- even if only for the swipes I found, because I had found so many! Once the group was formed May 3rd, several FOLs joined to post their screenshots of swiped MOCs in the photo-pool. It was a very busy month!

HM: What steps do you take when you suspect a picture has been 'stolen'?

BB: Screenshot is first and foremost, because it is evidence. Sure, a comment can just be placed onto the page for removal, yet it has born out time after time that most of the swipers do it more than once. Having proof they have swiped helps establish which swipers are repeat offenders.

Then the screenshot of the "suspected" swipe is posted, along with a Link to that specific page online where it

appears. Initially this group was set up to deal with the LU pages, yet it has also helped FOLs get their MOCs removed from swipers' pages on Flickr, MOCpages, Brickshelf, and even a few blogs.

Brick~Busters' photo-pool of screenshots utilizes the eyes of the greater LEGO® community to help identify the Rightful Owner of a swiped MOC. Once a positive match has been made, a link to the "original" MOC photo online gets posted. Then the Rightful Owner is notified -- usually by a comment posted onto their photostream, with a link to the screenshot on the Brick~Busters photo-pool. Ideally it is best for the Rightful Owner to know about the swipe for several reasons: Usually they are not aware of the swipe; it is best for them to request removal; this may prompt him/her to watermark their MOC photos to deter further stealing; and hopefully Brick~Busters gains a new member to help curb this problem.

HM: How many people are involved in this project?

BB: We now have over 200 members. The photo-pool is public, so we do gets tips of MOCs' origins from all the LEGO community online. It is very much a "group effort" at Brick~Busters, and has also served in fans making some new acquaintances.

HM: How much time do you dedicate to this task?

BB: It varies depending on the amount of activity; if someone finds a significant amount of swipes and needs me to screenshot them, then it can be an hour a day. My computer has gotten used to going into "screenshot mode" and I seems to have developed a groove of the process. Anyone is free to add a screenshot to the group; since many of our members don't have Pro accounts and only have 200 slots for their own MOCs on their own streams, I offered up my account space.

HM: How much time passes until the admins of a site act on your information?

BB: My first Request for Removal took only a day. Then, it seemed to take 3-4 days after the group got busy; the increase in volume of submitted comments may be a reason. Now it usually takes less than 24 hours during the work week. We have had a few come down in less than four hours. It really depends on the moderation on the site where the swiper has posted.

HM: What is the usual reaction of the 'victim' when you inform them that someone has stolen their pictures?

BB: The usual reaction is anger buffered by amusement. Many AFOLs seem to be struck with an emotion of flattery, yet at the same time, that of having their intellectual property violated.

HM: How many pictures have you rescued until now?

BB: Oh, gosh ... let me see: Our photo-pool contains 328 screenshots at the moment. No doubt there have been many others never screenshot, yet silently removed from a swiper's page online. That is good too. Although it doesn't really help in building up an accurate snapshot of the problem overall. Certainly the goal is to get MOCs returned to the Rightful Owner, by its image not being claimed by another person -- yet until more is done to prevent, it will continue to be a problem. There is no delusion that we can wipe it out 100% -- stealing is as old as mankind, right? Yet, it is also about helping the younger generation of LEGO fans realize it isn't just about slapping up a "cool" MOC they've "found" on the Internet so they can gain prizes, or admiration, or comments to pump up their ego. LEGO is suppose to inspire creative thought, imagination, mirror the real world, and possibly develop problem-solving ideas. This process needs to be genuine.

Using techniques that other fans have used, or getting an idea from another fan's MOC, to then create your own is absolutely not the same as stealing. That is the way of LEGO building. However, merely "right-clicking" to download a photo of someone else's MOC and uploading it online as your own -- even going so far as to concoct a story about it, and boldly replying to comments about it, without hesitation -- is disturbing to me.

HM: Tell us about a case that has particularly drawn your attention.

BB: We had a repeat swiper from LEGO Universe pages turn up on Flickr, who had also swiped from a LEGO fan there -- even going so far as to enter that MOC in a contest as his own! The sad part is that particular MOC he swiped had already won a contest on a AFOL fan site. He had also swiped images off MOCpages. One MOC he had uploaded to LU pages happened to be a very detailed MOC owned by a former LEGO Ambassador! A Brick~Busters member noticed the swiper in a fan site's chat room and asked him about the swipes, then forwarded the info on to our group. He took down one swipe and concocted a story blaming his cousin for the swipe. Then he joined Brick~Busters -- which is the first time I ever had to ban someone. He continues to swipe on a smaller scale. Although on LEGO.com his age says 19, he said he is 16 in that chat room, yet his actions and writing skills appear to be those on par with an 11-year-old.

Contrary to what many AFOLs think of as the age of swipers to be 8 years old -- statistically, the age is more in the 12-14 range. For me personally, I find that very concerning. Age 13 is old enough to realize ramifications of one's actions. Perhaps it is due to the developmental plateau of that age, or perhaps lack of parental involvement.

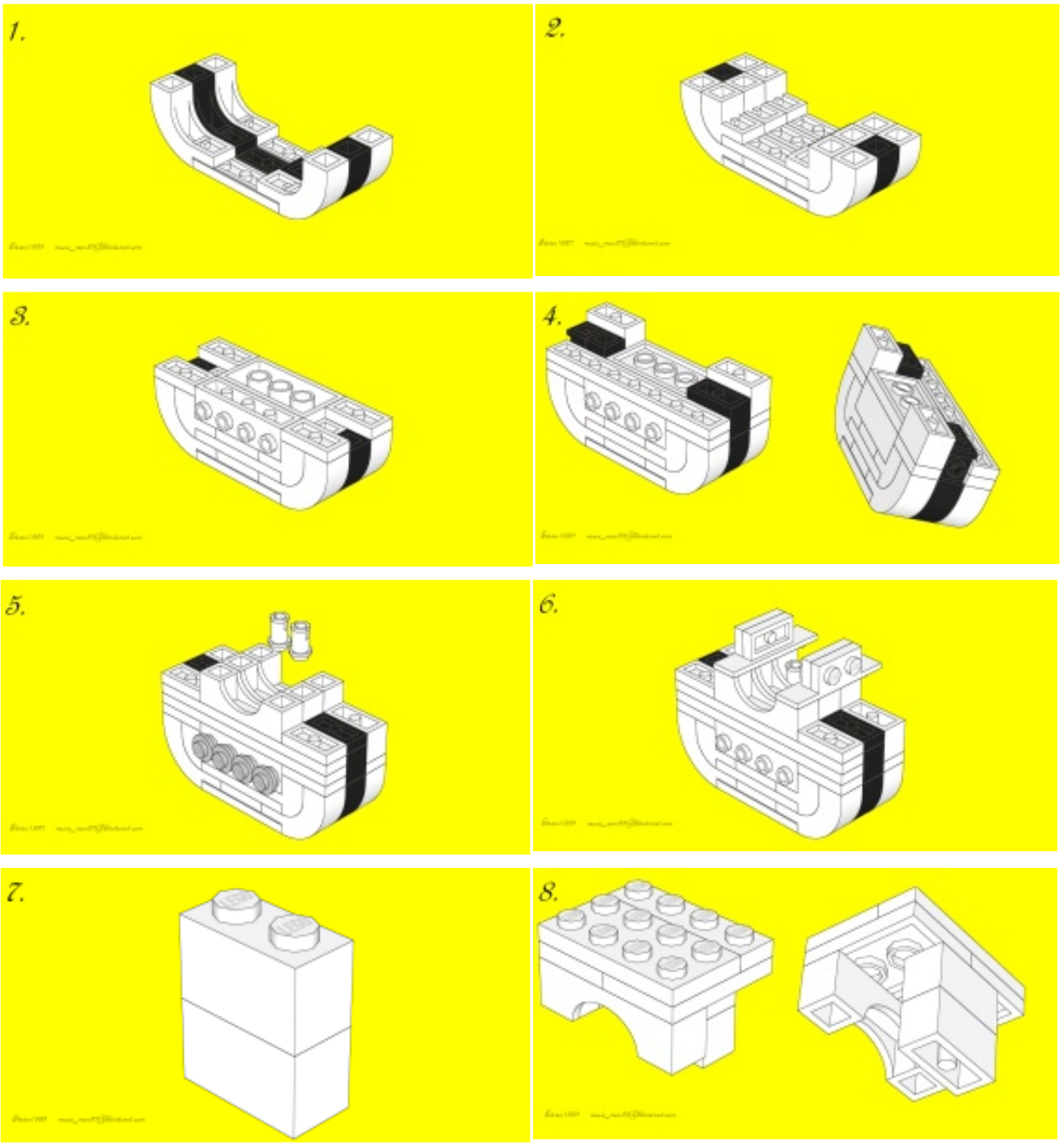
HM: Have you ever had any contact with the 'guilty' party?

BB: Mainly the one repeat swiper I already mentioned as having to be banned from Brick~Busters, whose comments blaming his cousin came through to my account's e-mail via a comment on a screenshot. I did not ever engage in dialogue with him via personal private messages. That is not my intent. That would serve no purpose because it would not be documented publicly. My advice to any FOL would be to not engage a swiper in a personal private conversation -- instead, allow the image-hosting site's admin to deal with their set procedure of removing a stolen image. Also, I don't use the word plagiarism because the meaning of that word really deals more with the written-word-idea, such as a story, a book, a script. Whichever word you use: swiped, stolen, or pirated -- it's good to be aware. I hope the readers of HispaBrick take this information to heart, for the future of LEGO® fan integrity.

~LegoMyMamma■

Bass-Guitar

By Steven Marshall



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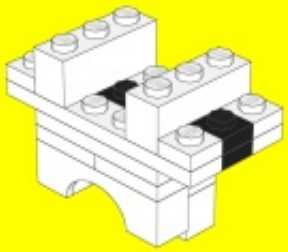

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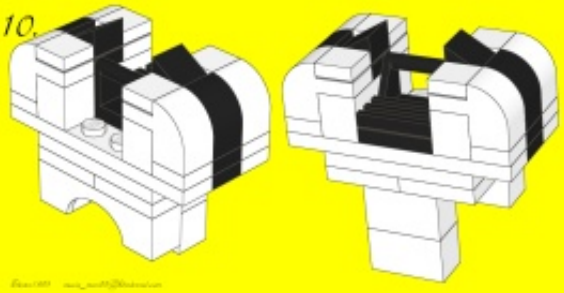

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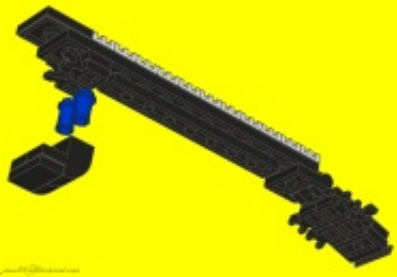

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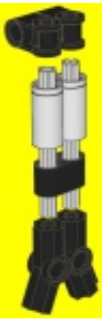

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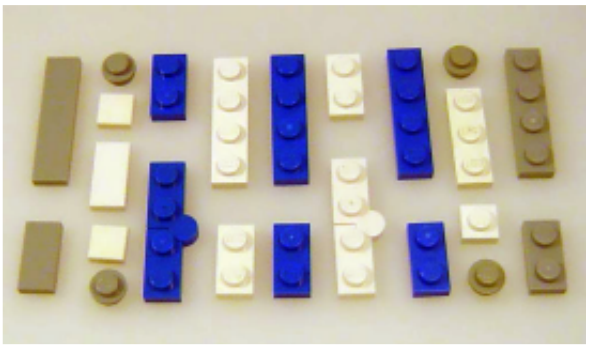
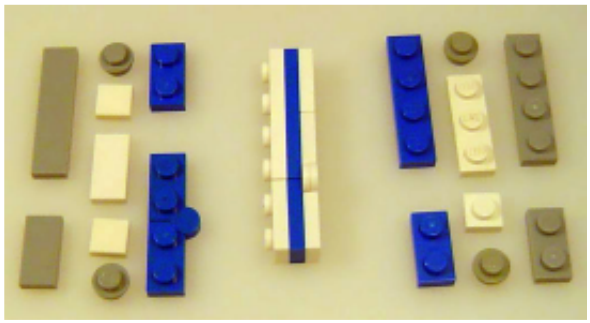
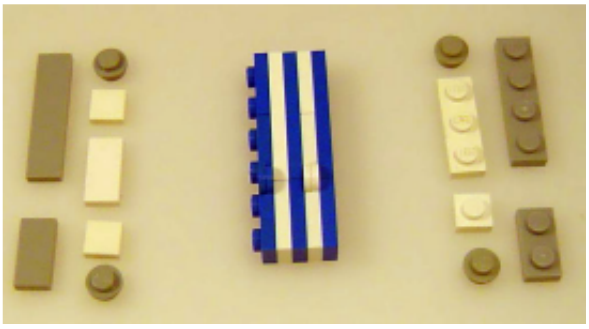
Deck chair

By Lost Afol







Darth Vader™ Contest winners

Name: Alberto
LUG: HispaLUG
Nick: Lost AFOL
Country: España

Name: Luis
LUG: HispaLUG
Nick: Vrykolakas
Country: España

Name: Alberto Luna
Country: España

Name: Noé
Nick: Panda
LUG: HispaLUG
Country: Austria

Name:Adam
Nick name:Anakin
LUG:Kocke klub
Country:Slovenia

Ballabio 2009

Text and pictures by lluisgib

I had heard really good things about this event. Peaceful surroundings (Lake Como, The Alps), good people and lots of bricks. This time my visit was a bit different. I was going to be there during the setting up of the event (perhaps one of the most interesting bits) and during the first hours.

I left Barcelona at 5 in the morning, and arrived in Ballabio at around 12 in the afternoon, after riding a motorbike, a plane, a bus, a train and a car. What a marathon!

Just after entering the building where the event took place (the school of Ballabio), I met Antonella, an Italian AFOL I met last year during LEGOWorld in Zwolle (Holland), and she "commanded" me to go to the reserved room saying we were going to eat Pizza and Focaccia. That was the best way to bond with the Italian community. With my humble Italian I was able to communicate and tell them a bit about the Spanish fans. A bit later Marco Chiappa, the newly re-elected Italian ambassador, arrived and we had a lively conversation. After lunch, I went for a walk to check how the event was organized.

The school of Ballabio has 3 floors; the main floor, where they have the classrooms; the lower floor, with a big hall and a small gym; and the top floor which is a bit smaller than the others.

The hallway of the main floor was completely filled with tables for exhibiting MOCs and displays (Probably around 35~40 meters overall). Apart from that, there was a classroom used for two themed

exhibitions: the complete collection of the Western sets and a showcase of all the castles released by LEGO®. Another classroom was meant for conferences, a third one for selling sets and parts, and a fourth one reserved for the exhibitors. On the lower floor, the hall housed many City displays. In the gym they had big MOCs, more displays, and all the robotics stuff.

On the top floor, there was a gaming area for visitors. I'd like to go into detail with this point because there were many interesting initiatives promoted by Antonella. For a start, there were some tabletop games created by this active AFFOL, some inspired by classic games like Domino, and some thought up Antonella. With a small instructions book, the kids were ready to play. Then there was this really original initiative, perfect for events as well as for working with disabled kids and similar. It was a series of plastic boxes filled with LEGO sets, instruction booklets and playmats. A catalog showing all the available sets was given to the kids so they could pick their favourite. Once chosen, they gave him/her the set for building it. There were different

levels of difficulty, depending on the kid's ability or progress.

This system was used with kids that were victims of the Abruzzo earthquake, and the results were really satisfactory.

On Friday night, there was dinner and a couple of activities meant for AFOLs, like the auction of new sets Jan Beyer brought with him. The Pick-a-Brick was postponed to the next morning since there was no time left after everyone got all crazy building the novelty sets.

The Italian fans are great builders and showed a big amount of original and amazing creations. It's hard to highlight only a few, but I'll just mention my favourite ones. The completely functional reproduction of the gondola lift of the city of Bolzano really amazed me. It was made with Technic and Mindstorms and it was working during the whole event. Really spectacular.

Continuing with Mindstorms/Technic, I must mention the plotter that was able to draw your face based on a picture taken with a web cam and processed through some special software.

The classic Formula 1 cars exhibition was another big point in the event.

As for displays, there was Classic Space, Castle, World War II... but the spotlight goes to the City displays. There was a great amount (and quality) of them in every corner of the event, showing us the beach of Rimini with all the parasols lined up, or a city with a harbor filled with water where ships could just float and move around. And of course there were many with trains as the main thing.

As an example of international contribution to the event, the Beijert family from Rotterdam (Netherlands) travelled to Ballabio for the first time to build and exhibit a city and train display of about 8 meters. They have quite a lot of experience with this, since they've been attending events in Belgium, Holland and Germany for 10 years. While the father and the two sons were working hard setting up their display, the mother stayed in Lecco since she isn't that much into LEGO®... I suppose this is something common in many families. From this display I really liked the simple yet ingenious system for making an articulated bus.

There were many countries represented, and everyone managed to make this a great event. The people, as always, were really kind and always ready to chat about anything brick related. Luckily Spanish and Italian are rather similar, so there wasn't much of a language barrier.

Grazie a tutti e ci vediamo presto!■

The LEGO® Factory

The place where the parts, our dreams are made of, are manufactured.

Text by lluisgib

Pictures © The LEGO® Company

Moulding - Kornmarken

I find myself at the gate of a factory. It could be any factory anywhere in the world. There is nothing (or almost nothing) to indicate that inside these walls there are some people and machines that make the dreams of thousands of children come true… and not only those of children.

I came here with Jan Beyer, LEGO® Community Development Manager, who offered to guide me on this particular trip. The first step is to put on the reflective vests, which indicate that we are visitors. Yellow for me, orange for Jan.

We start in a hallway. There's an old manual plastic-injector machine, used to show visitors the process of creating a LEGO brick. Although the machine is more than 50 years old, the method is basically the same. Below it is a container where the plastic grain used for injection is stored, which is milky white. Formerly, coloured grain was used to cast the parts, having as many kinds of grain as there were colours in the elements palette. But due to the ever growing amount of colours it was difficult to maintain this production system, so they opted for a neutral grain colour, to which colour is given during injection. Another advantage of this system is that the company can receive raw materials from different suppliers, maintaining quality and final product properties (no matter how carefully it is done, plastic from different suppliers could have different tones for the same colour).

Before entering the rooms where the injection machines are, we must bear in mind some warnings:

- Wear suitable footwear.
- Always follow the marked paths.
- Do not touch anything without permission.
- Do not touch items in boxes or equipment.
- Do not pick up anything from the floor.
- Do not take photographs of the production area.

In the factory there are about 800 injection machines working 24 hours a day. A total of 800 pieces are produced every second, 48,000 per minute, 2,880,000 per hour. Today, about 80% of the total amount of bricks is produced in Billund. The rest is manufactured in the Czech Republic and Mexico,

and only special elements such as electrical elements or fabrics are made in China.

The plastic grain arrives at the factory and is stored in silos of 24 tons each. Some pipes come out of these silos that go directly into the rooms where the injection machines are placed. Once the plastic is inside the machine, it is heated to about 220 º C, and mixed with the dye that will give colour to the piece. The mould is closed and the plastic injected. After 10 seconds, the mould is opened and the bricks come out as we know them. Although the most widely used plastic is ABS, about 27 different types of plastic are used, each one with its features and uses. For example, there is a room where only transparent parts are moulded.

Once the brick is shaped, it is dropped to a bucket in the same machine and then the bucket is weighed. Once the pre established weight is reached, the machine stops and calls some electric carts, which replace the filled bucket with an empty one. Then the machine is ready to continue producing bricks.

The spare plastic from moulding is turned to grain and reintroduced into the production process. In this way only 0,4% of plastic waste is generated, which is incinerated.

The cart carries the bucket to a chaotic warehouse, that is to say, a warehouse where only a computer knows where each piece is stored. The warehouse has about 170km of linear storage capacity, with room for about 400,000 boxes, at a rate of 660 entries and departures per hour. When parts are needed for packing, printing or just sending to another store, the request is made and the system automatically collects and prepares the boxes for shipment.

It is a fully automatic system which requires a small number of employees to operate. The total number of workers is 450, working 24 hours in 3 shifts, 50 weeks a year. As a curiosity, the factory is built on a foundation made partly of old moulds. This is standard practice in some companies and is done to prevent such moulds from falling into the hands of other companies, which may copy or use these moulds.

After watching the whole manufacturing system of our beloved bricks, and impressed by everything I've seen, we leave the manufacturing building and head for processing and packaging.

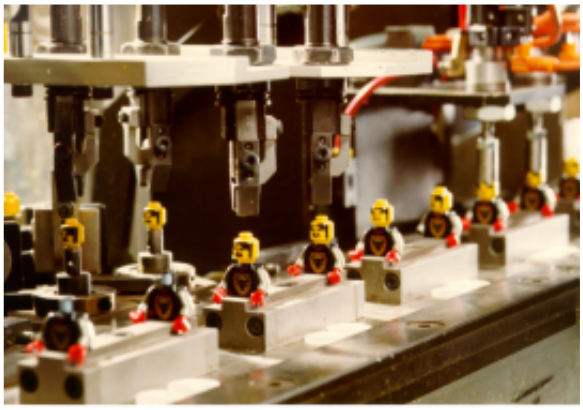
Processing and packaging – Højmarksvej

We repeat the procedure: we put on the vest and again are reminded of the rules to be followed within the factory.

The building is divided into two parts, the processing area, where the pieces from the manufacturing process are assembled and decorated, and the final packaging area, where all the pieces are packed, placed in their corresponding box (with instructions and stickers), and closed for shipment to the warehouse.

The visit begins in the processing zone. There are 35 machines dedicated to assembling different parts and decorating bricks by pad printing.

Parts that need to be decorated pass through these machines to get the picture that will define them. A pad printing machine is able to apply up to 12 different colours on the same piece, which actually lets you print really complex designs. The machine performs as many operations as different colours are applied, plus the placement and removal of the piece. For example, 4.2 million minifig torsos are printed per week, to reach 200 million of these little people a year. At the time of the visit, they were decorating the CITY minifig heads, at the same time as torsos and helmets for Star Wars ™ clones. Although I was tempted to stretch my arm to grab a few parts, the rules were very strict and I respected them 100%.



The clearest example of the assembly process is the minifig body or legs assembly. Each minifig body is made up of 5 parts that must be assembled: 1 torso, 2 arms and 2 hands. The process is very laborious in machine time terms as it requires several steps:

We begin by putting the torso in the machine. In case it is decorated, the machine has to place it correctly to avoid attaching the arms backwards. To do so, it uses a small ink mark that is in the head´s stud: this is the answer for many of us who have wondered what that little mark is for. Once oriented, one arm is inserted and then the other, arms are rotated so that they point upwards. The hands are inserted and the arms are rotated downwards again to reach the position we see when we open a box.

Once our tour through the assembly and decoration area is finished, Jan tells me to go to a kind of tray where I find a bunch of minifig parts. It's a small detail given to you when you visit the factory, and it consists in mounting a minifig-souvenir of the visit. A great little souvenir!

We cross a hallway and enter into the area of box packaging. There are two main tasks performed in this section: one is to put the bricks in bags and the other is to put all bags together in their respective boxes. Every day, 645,000 bags are packed to fill 89,000 boxes. 330 employees take part in this operation.

In the packing section there are three different types of machines:

- Single-string: 18 different elements packaging capacity.
- Double-string: 38 different elements packaging capacity.
- PP99: 42 different elements packaging capacity.

In each machine there are some conveyor belts that collect the pieces (one by one) from the different boxes that come from the manufacturing or decoration process. On the conveyor, the pieces are counted to put the exact number in the bag, and the volume of each piece is controlled to determine if it is correct or not. If not, that piece is rejected from the production chain.

There is another big conveyor belt that collects all the parts that go in each bag in a bucket. Once the bucket reaches the end of the machine, it dumps the pieces in the bag and the bag is sealed.

The bags are weighed to control that they contain the correct number of pieces. Many of the bags contain a small extra piece, this is intentionally done to avoid packing less than required which could pass undetected due to heir light weight.

At the box packaging section, we start with completely disassembled boxes. The packaging machine folds the box, applies glue where necessary, puts the bags into the boxes, adds any large pieces, the instructions manual and decal sheet (if applicable) and finally closes it.

There are 4 packaging lines:

- Combi line: up to 1600 units / hour
- Small Multibox: up to 1300 units / hour
- Large Multibox: up to 1450 units / hour
- Top Box: up to 700 units / hour

Once the boxes are closed, they are piled and packed into larger boxes that contain a specific number of units of this model (packing unit) and sent to the central warehouse in the Czech Republic.

During the visit, models of Star Wars ™ and Technic for the last quarter of 2009 were being packed.

And here ends the visit to the The LEGO® Group, Billund plant, which has been a beautiful experience for me. After so many years acquiring and opening LEGO sets I have seen how, starting from some small grains of plastic, the final product is made. I hope that from now on, you will have a clear vision of how a box is born and how it will end up being bought in a store.

I would like to express my most sincere gratitude and thanks to Jan Beyer for offering me the opportunity and all the help to write this article.■

LEGO® Idea House

The LEGO Museum, a walk through the history of the company

Text and pictures by lluisgib

Behind this evocative name we can find what is considered the Museum of the LEGO® Company. Situated in the middle of Billund, this building reflects the company's history, and also you can find inside some rooms where different creative activities are taking place. This museum is reserved for visitors to the company, so it is not open to the general public.

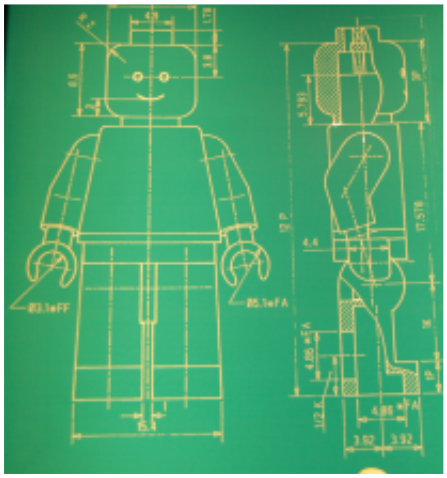
We enter a series of rooms which offer, in a retrospective way, an overview of the evolution of the company. The explanations are shown on information panels that make up the walls of museum, as well as audiovisual media and LEGO products.

There are three main areas, one for each of the three owners the company has had until today.

Ole Kirk Kristiansen - Founder of the LEGO ® Company.
Godtfred Kirk Christiansen - The visionary who bet for plastic bricks.
Kjeld Kirk Kristiansen - Current owner and who has led the company to modern times.

The Kjeld Kirk area is the most recent one and it is where I could recognize more sets. The lighting comes from many backlit panels that offer a cosy atmosphere. In this great hall you can find a description of the evolution of the toy and the different lines, like City, Castle, Star Wars ... As important facts in this period, some drawings are shown with the Minifig design or different models of the MINDSTORMS world. There is also information about the Community of LEGO Fans in the world. It is filled with artwork, shelves and tables full of models and displays. Someone might have palpitations seeing a MISB Monorail 6399 ... There are some walls with a “secret". You can open them and find some outstanding sculptures that artists have made especially for the company. The audiovisual media shows production processes, images of events or TV ads from different eras.

We leave the "Today" and enter the time tunnel to

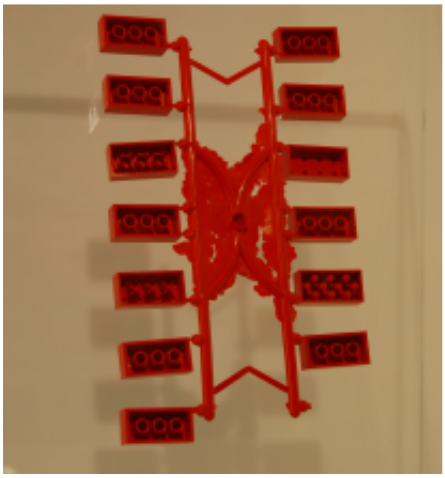


get to the Godtfred area. Here you can find the models with which the brick was born and raised. For example, there is a city fitted with 50´s and 60´s models, with the typical one piece car and flat trees. Also, we can see the evolution from these models to constructions made with bricks, the arrival of the first figures (from the Homemaker line), the first trains, ships ... Some photographs show the production processes from that time. In a glass display case you can see the famous patent for the Brick, which celebrated its 50th anniversary last year and was the corner stone of the expansion and consolidation of the company.

At the end of Godtfred area, you can find one of the first injection machines that were used by the company, along with an old cast and some "recent" demoulded parts. It is a clear example of the inflection point of the company, which before this time produced mainly wooden toys. That is the time we will dive into next.

We are now in the early 30s, in the house where Ole Kirk founded the company. Yes, the Idea House includes a modern building, which connects to the birthplace of LEGO®. We find an office, where Ole Kirk founded and took the reins of the company in the early years. Just in front of it, a showcase which displays some of the wooden LEGO toys manufactured in the companies early stages and also other types of toys like a precursor of a GBC made of wood. We find, of course, the famous duck which, although it is not the first toy LEGO launched, has become a symbol of that period. Some of the tools used to make those old toys are exhibited as well.

After this tour through the history of LEGO, there are



still some interesting things to visit.
First we entered into a small room where imitation models that other brands have made are exhibited. It's funny to find very old reproductions as well as boxes that really are the original ones with just a different logo and reference, although the contents are not quite the same...

After this room there is a small area with some sculptures and a guestbook, which I was honoured to sign as a witness to my visit.

Finally, when I think the visit is over, another door opens and I see some stairs that descend into a basement, where there is a door with an encrypted security lock. Behind that door you can find a room full of sliding shelves. At the top of each shelf there is a figure showing one or more years. By moving one of the shelves, the world opens before my eyes. It´s the Vault! The famous warehouse which contains one unit of each LEGO® set that has come on the market (actually it contains 98% of the sets). I'm fascinated with everything that I find there; sets that I have never known, sets of my childhood which I had and played with when I was a boy of 7 or 8, promotions, special boxes, posters ... Paradise. No more, no less.

Unfortunately we have to leave the Vault, but my retina (and in my camera) retain the impressive image of all those mythical sets together.

Now the visit ends. We walk through the museum in the opposite direction (chronologically this time), leaving behind this building full of history. In just over half an hour, we have travelled through 76-year history. The story of perhaps the most famous, and for sure, the most creative toy in the world. ■

Alternative models: 8960

By car_mp

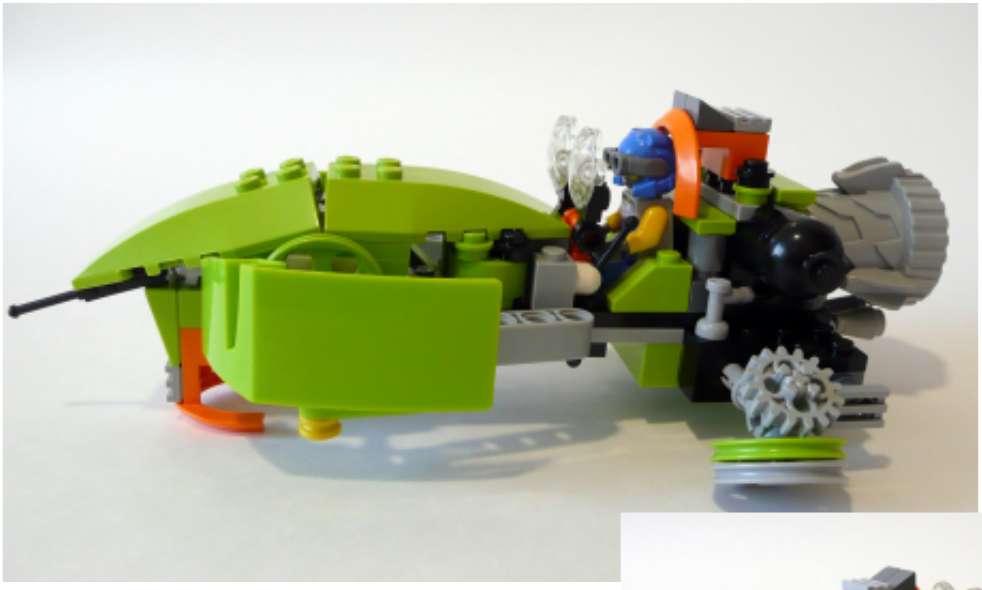
Set courtesy LEGO® Iberia S.A.

I have to admit that this model was the one I liked most from the new "Power Miners" theme. Besides, the detail that the drilling system is divided into two parts that rotate in opposite directions and is connected to the wheels, makes it a playable and fun model.

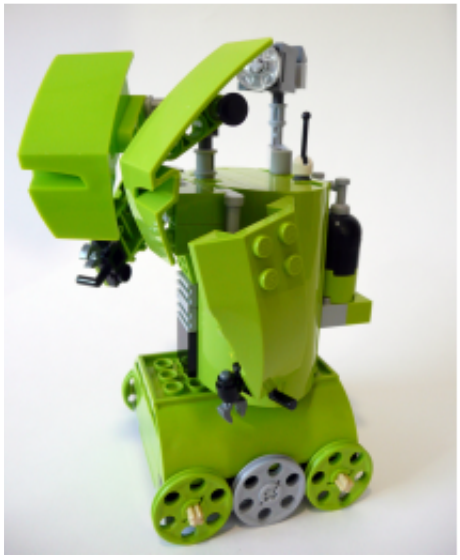
But when I began to think of alternative models I found that the set has a very limited assortment of parts with little variety of colours and some quite large parts. Big wheels don´t allow you to create vehicles at minifig scale and the small number of classical pieces makes "building in the old style" harder as there are only 235 pieces for a model of considerable size.

Anyway, continuing with our policy of providing alternative uses for parts, I designed these three models.

The first is a kind of "speeder" in which I managed to use the end of the drill as a propellant. The nearly complete absence of transparent parts has forced me to design a slightly unusual windshield, and I used the Technic panels to give the ship a bit of "body".



The second model is a small robot, in which I used the Technic panels to simulate something like a face. I've put it on wheels due to the lack of parts that allow joints to all the limbs.



The latest model is an attempt to find another use to the big wheels, using them as a column on which an "Observation base" is placed. I hope you enjoy the alternative models. ■

Fire Brigade

Modularity and romance together

By lluisgib

Pictures by lluisgib and LEGO® System A/S

Set: Fire Brigade
Set Number: 10197
Number of parts: 2231
Includes: Building, Fire Truck, 3 firefighters, 1 civilian, bell, water tank, furniture.
Recommended Price: € 149.95, $ 149.99

Every time I start to build a new modular building, I prepare to enjoy the many details included in it. The Fire Brigade is no exception.

The Fire Brigade is the fourth modular building in the series, after the Corner Cafe, Market Street (both discontinued) and the Green Grocer.

The first time I heard the name I was a little surprised about the launch of a new fire station. Throughout the history of LEGO® CITY there have been many and varied fire stations. I knew that a modular building didn't have to look the same, but I expected more "red". When I saw the pictures I was surprised about the building style. It reminds me the typical fire stations of the USA. Complemented with a truck with an "old fashioned" look, the building is a good addition to the existing ones, and shows some very interesting construction techniques.

Construction

Like other modular buildings, we start by assembling the minifigures and in this case the truck. As is also becoming customary, the minifigures have the "classic" face. There are three fire-fighters and a civilian woman with a handbag.

The truck is in the same style as the building. It has rounded shapes and lots of accessories like hoses, ladder (made from parts) and some tools. Although the truck is 6 studs wide, the designers have managed to seat two minifigs with a stud between the two seats. As the only flaw, the front bumper is a bit fragile. It is made with two bars and two binoculars, and is connected to the truck only through the top bar. The grip of the bars with the binoculars is not very strong, so with any slight blow, it dismantles.

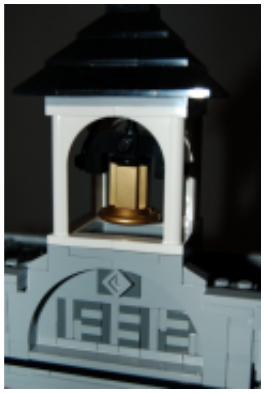
We begin building the front and back pavements. At the front there is a "3" built with tiles, which is the symbol that indicates an emergency exit of vehicles. There are two manholes, one tree (finally!) and a lamppost. At the rear some plates are used to simulate irregular green grass.

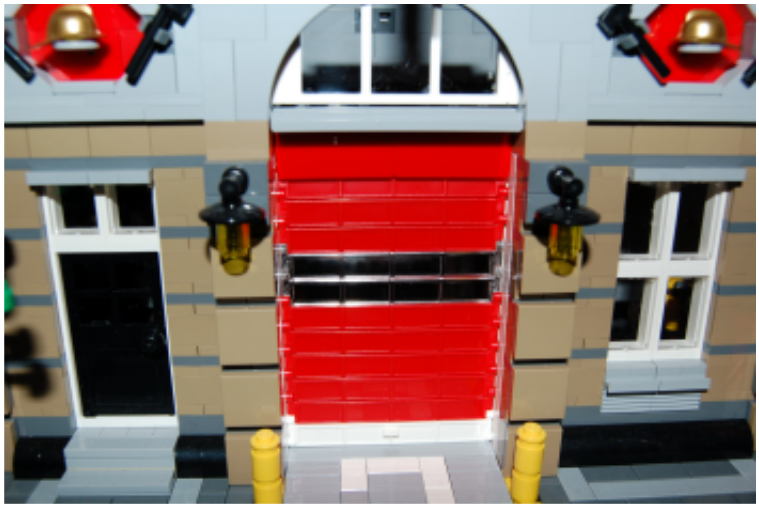
When I start building, I start noticing the details that turn building a modular building a special experience. On the ground floor, apart from the area where the truck parks, there are some trash cans (one brown square and a cube), a chest to place the oxygen bottles, a bank, a rack for the fire fighters' helmets and fixing points for fire extinguishers and other tools. It is very curious and fun to watch how dark grey frogs have been used to make the rack of helmets. As in the rest of modular buildings, there are of course also the stairs leading to the next floor.

The front facade is decorated with light brown tiles (2x2 tiles). The mailbox, although it is not functional, is very striking in contrast with the colour of the building. On one side we set the access door to the building, on the other side, a window, and in the access door of the truck, the garage door with a small transparent section. In the back there is another access door, two large windows and a large gate (made with the gates used in Castle sets), which is the rear access to the garage.

Upon completion of the ground floor I start to see some of the construction techniques that I like so much to see during the assembly of these models. To make the window that is above the garage access, designers have used a vertical window, which is rotated 90 ° with Bricks 1 x 1 with Studs on Two Opposite Sides and Bricks 1 x 1 with Headlight. A very clean and fast way to make that turn. The method of securing the top of the garage door is also curious. Instead of connecting it directly to the main structure with a plate, the designer have opted for using two plates 1 x 4 with Arm along with two Plate 1 x 1 with Clip Vertical. Although it is a bit more fragile than the typical solution, its placement is cleaner and allows the top to be independent of the main structure. In the centre of the building, there is an American flag. In my opinion it is a bit ugly that the flag is made of plates, since the thickness is disproportionate. Perhaps it would have been better to use a white flag part and stickers to customize it (you know I usually criticize stickers, except when justified).

The finishing touch of the ground floor, which deserves a small paragraph, is done with two gold





fire-fighter helmets that complete the facade. These two helmets, on either side of the driveway and on a red background are spectacular. It shows the quality of the design, although some of its force is lost due to the fact that the union between these pieces is quite weak and any slight touch makes it move or become detached.

We build the upper floor starting with its base, and thereafter we build some items of furniture which are one of the highlights of the set. For example, there is a refrigerator, a ping-pong table, a complete kitchen, in which the sink even has a drain, a wardrobe and a sofa. All this furniture makes this plant look very complete. Since it could not be missed at any fire station, there is also the hole on the floor along with a yellow bar to slide down to the fire truck during an emergency. There are also some "gadgets" interesting like the sausages.

The way the walls are made is very original, while simple. The tiles in dark red and gray with different depth provide a completely "real look" to the facade. You can also see a large window in the centre, accompanied by two windows, one on each side. These windows have a small finishing at the top made of a car radiator placed upside down.

The roof deserves a chapter of its own. It isn´t just a simple roof because it incorporates a parapet, a golden bell and a water tank. The tower is beautiful, with white arches that surround the space for the bell, and a black tile roof. The colour combination is very attractive. The water tank, though simple, is very well designed. Apart from the parts of the shell and the securing structure, the designers have also added a pipe that allows the extraction of water from the reservoir. To access the roof, they have again used 1x1 headlight bricks to place a door horizontally.

The parapet is well built, with shapes that mimic the typical decoration in plaster or stone. In the middle there is a date, referring to the construction date of the building: 1932. Do you remember anything about this date? 1932 was the year of the founding of the LEGO® Company by Ole Kirk Kristiansen. A good reference, incorporating this date. Besides this fact, this 1932 building is very curious because it is based on a structure of 1x1 plates with clip light that which are connected to clip join 1x2 plates with handle by means of Bar 1.5L, and form a whole together with plates and 1x1 tiles, to form the date 1932. Very original and very well done.

The Set

When you see the finished building, with all the floors together, it gains a lot of points. The combination of colours between the different plants

is very good. Modular buildings tend to use more realistic colours than the basic sets which can increase their imitation of reality. If I look at the building from the bottom up, I see each plant as a "whole" which does not need any supplement. On the ground floor, the decoration of the facade. On the first floor, all the furniture. The parapet is very elaborate in many shapes and on the roof we can find the bell and the water tank.

A small detail that I will not let go unnoticed, is that we have reached parity: two male and two female minifigs. We are not accustomed to see women as fire-fighters and police officers, just as civilian women. I think it's a small step forward for girls to feel more identified with this toy, which is traditionally “for boys”.

Conclusions

Unlike other previously released modular buildings, this is the first one that has only one elevated floor. Both the ground floor and first floor are higher and together they equal the height of the Cafe Corner and Green Grocer. Even though it is a building with a "classic look", it matches with the rest, which are already a bit classical. The designers have made a lot of effort with the details. No area lacks an important detail or just a small touch of decoration. The tree, though simple, is a new addition that I hope will be repeated in the next building, if possible more elaborate. The finishing of the façades on both floors is very realistic and pretty. Details like the golden helmets, the date or the parapet are of high quality.

The truck is simpler but it does the trick, and the rounded design is consistent with the date of the building. When the designers decided to mount the stairs with tiles and Minifig Tool Light Saber Hilt they made it very appealing and more beautiful than the typical stairs part. Nothing to add regarding the minifigs.

In the design some interesting techniques have been implemented that will inspire more than one AFOL for future MOCs (like me for example), so I recommend the set, not only because of how pretty it is, or as a part of the collection of modular buildings, but as a "school" of building techniques.

What will be the next surprise in the line of modular buildings? The level is now very high ....

Acknowledgments

Jan Beyer for providing this LEGO® set, and LEGO Iberia for the official pictures.■

Great creators of the world: Peter Reid

Today we present you one of the leading exponents of Neo-Classic Space and a master detailing his MOCS.

By Hispabrick Magazine

Pictures by Peter Reid

Hispabrick Magazine: Name?

Peter Reid (Legoloverman)

HM: Age?

PR: 35

HM: Nationality?

PR: English

HM: What do you do normally?

PR: Postman

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

PR: When I was around six or seven, I think.

HM: Your first set?

PR: It was a Town set (1592). Back then they still had brick built horses. Good times.

HM: And your last set?

PR: The last set I got was Star Wars - Home One (7754). I really love the figs in that set. They have so much detail. The Mon Calamari heads are wonderful.

HM: ¿Your favorite commercial LEGO building theme?

PR: It would have to be Star Wars. I've been sucked into the minifig collecting mania. I've been buying the range since it started ten years ago and have a near complete set.

HM: ¿And your favorite non-official building theme?

PR: Neo-Classic Space, without a doubt. I have devoted a great deal of time and love to the classic grey, blue and trans-yellow era.

HM: What is your favorite LEGO® element and why?

PR: The 1x1 brick modified with 4 studs – part number 4733 - is a definite favourite. There are so many connection points to build from in a small space – I've had lots of cool models grow out from those bricks.

HM: Which part would you like LEGO to produce?

PR: There are so many gaps in the parts library. I'd really love more of the small, intricate parts. I find working with 3.18 wands and clips to be a fascinating part of LEGO building, and I'd love to see that family of elements extended, to include more clips and different lengths of wand.

HM: How many hours do you spend building with LEGO?

PR: Sadly not enough, these days. I am working weekends because of my job, and it keeps me away from the bricks. If I can manage a couple of hours building in a weekend, that's pretty good.

HM: What does your family/friends think about this hobby?

PR: I am very fortunate. My mum was extremely supportive during those awkward teenage years, and never pressured me to put away my toys for good. My friends are cool about it, too.

HM: Do you draw or pre-designs before you start building?

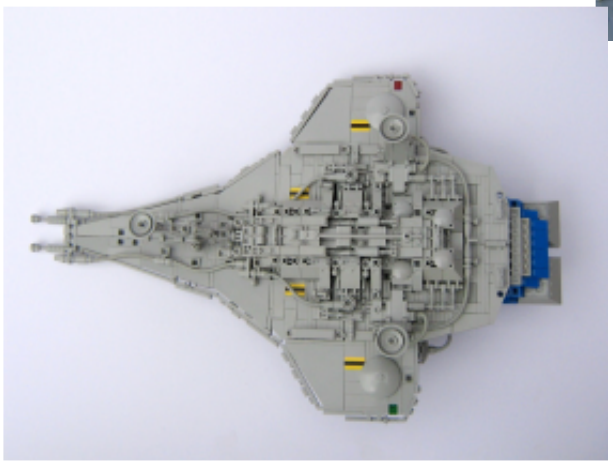
PR: Very rarely. I have worked from sketches before, though. LL-989 Wildfire was built from a sketch by Nnenn (one of my favourite builders). It was a good way for us to collaborate.

HM: How long does take you to get from the idea to the finished model?

PR: It varies. For a small piece, perhaps four hours. I am not a fast builder, and I carefully consider each move during the build process. Everything has to be perfect for me to build successfully. No disruptions, calm state of mind...and the bricks must flow, of course! Sometimes projects fail because I just can't find what I'm looking for, even though I know I have a box full of them somewhere.

It took over a year to get from initial concept to finishing my tribute to the Galaxy Explorer, LL-497. I took it very slowly during the build, because the original LL928 is an iconic ship and I didn't want to lose sight of the vision, or make any mistakes.

HM: You build both in micro scale and minifig scale.



Which scale is most comfortable for you and why?

PR: I think my best work has been in minifig scale, but I'm really getting a lot of enjoyment out of microscale right now.

It opens up a whole new world when you don't have to worry about fitting pilots inside cockpits.

Building in different scales makes you consider elements in new ways, and can lead to some very interesting results.

HM: Your constructions often have a certain amount of greeble which gives them a very realistic look. What advice would you give someone who would like to start using this technique?

PR: First, you need to get hold of the really useful pieces. I've been collecting LEGO® for a long time, and I've spent a fortune and amassed some excellent supplies for doing greebles. My models are fairly parts intensive – I like to maximise detail wherever possible.

I also rework many of my models until I am satisfied everything looks perfect. For me, LEGO is not about instant gratification. Building is a painful, frustrating process. If construction is too easy, I don't feel like I've put the effort in.

I try to finish my Neo-Classic Space models to a point where I can't make them any better. It takes a long time and it's difficult - but the results can be awesome.

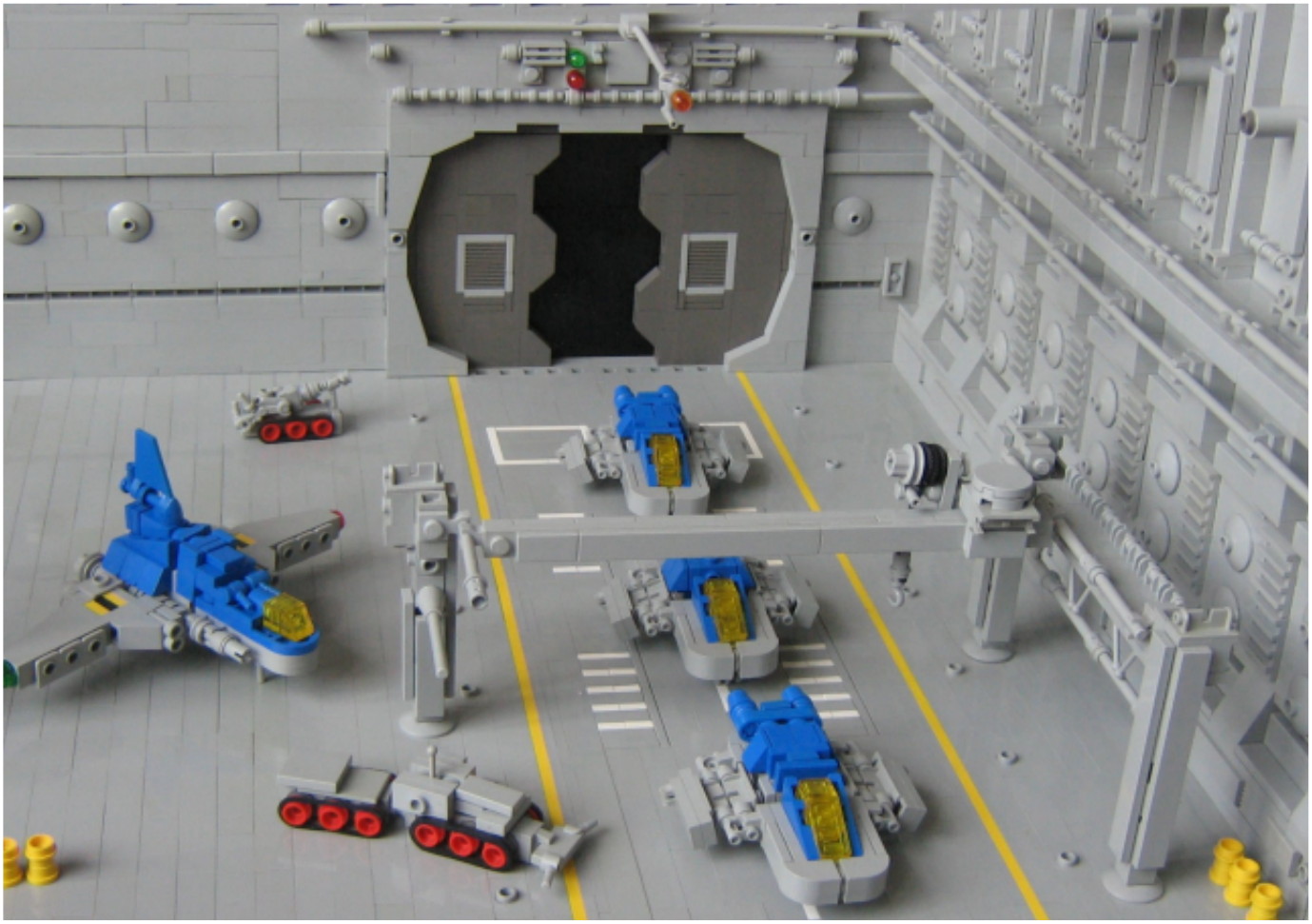
HM: Why do you think the space themes of the last couple of years haven't been as successful as Classic Space?

PR: The original LEGO Space range was a tough act to follow. The 80s and early 90s set designers did a marvellous job shaping my childhood. I loved Futuron and Blacktron, and managed to stay true to Space LEGO through to the late 90s. I still have a soft spot for less popular ranges like Spyrius (they had a cool colour scheme).

HM: What do you think of the new Space Police line?

PR: I'm very impressed. I am friends with two of the designers of Space Police III - Mark Stafford and Adam Grabowski. They have produced some strong designs, and I think it will revitalise space for a new generation. I love the little nods to classic themes put in by the designers. There is a new Blacktron alien minifig due out in 2010, and his torso design is a work of genius.

HM: Aside from space ships and vehicles, what other things do you like building?



PR: I like building robots, of course. I am also into background wall and floor design (which uses vast quantities of brick but gives such cool results.

I also enjoy collaborating with my fiancé, the lovely Yvonne Doyle (also an AFOL). She mostly builds town stuff, and I occasionally contribute ideas or models for those projects. We each have our particular LEGO® interests, but we do build together, which is always fun.

I've build in the post-apocalyptic theme (I've only made a single diorama so far – but I have plans for a sequel some day).

HM: The increase of AFOLs and lines like Star Wars create new possibilities not imagined before by LEGO. What do you think about the old school LEGO and the new LEGO?

PR: LEGO had a strong product range in the 1980s. I base a lot of my models on those old ideas from the Space range. I'm not against change, though – the evolution of the product through the years is fascinating. Star Wars has brought new life to hobby, and has brought many AFOLs into the community. It has also given us new parts which are eternally useful, such as lightsaber handles and cool weapons.

I've been very impressed with the Star Wars minifigs recently. They've really taken the detail to the next level, which is something I appreciate. We are modelmakers, and any option for greater realism is something to be embraced.

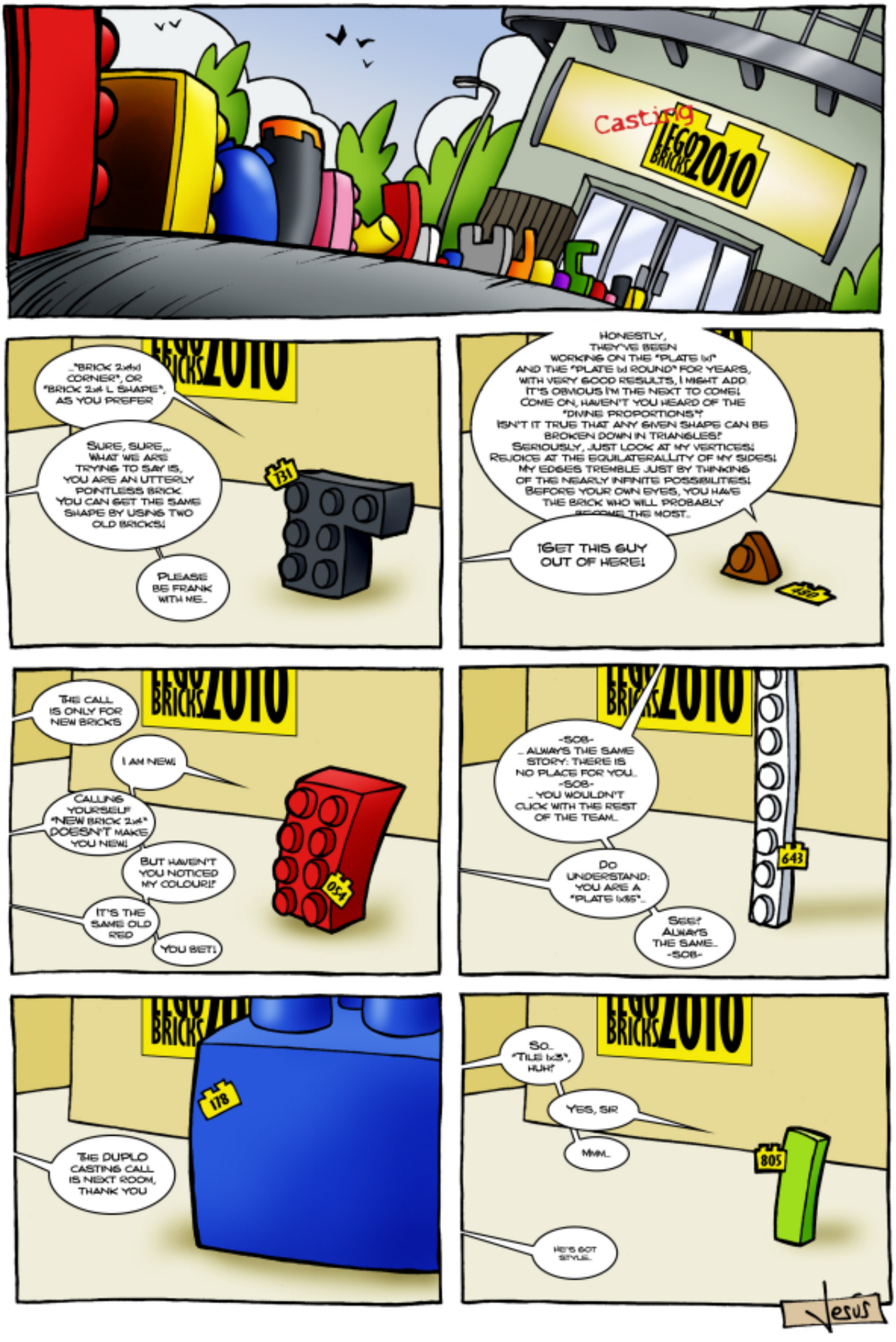
I look forward to seeing the new directions LEGO take their products in future years.

HM: Thank you very much Peter.

PR: You're welcome. ■

Desmontados

By Arqu medes



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If your language is not Spanish, don´t worry, we will find a solution. Contact us now! ■

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car_mp	http://www.brickshelf.com/cgi-bin/gallery.cgi?m=carmp
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In the next issue

In the next issue you will find everything about the AFOL event in Spain and a visit to Legoland Park in Billund

Do not forget that now you can find the latest on the magazine and a few more surprises on the Internet at www.hispabrickmagazine.com

Happy Holidays to all and a great 2010 for all.■

hispabrick
magazine

006

Madrid, 6 y 7 de Diciembre

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