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# Brick Journal

Issue 18 • March 2012

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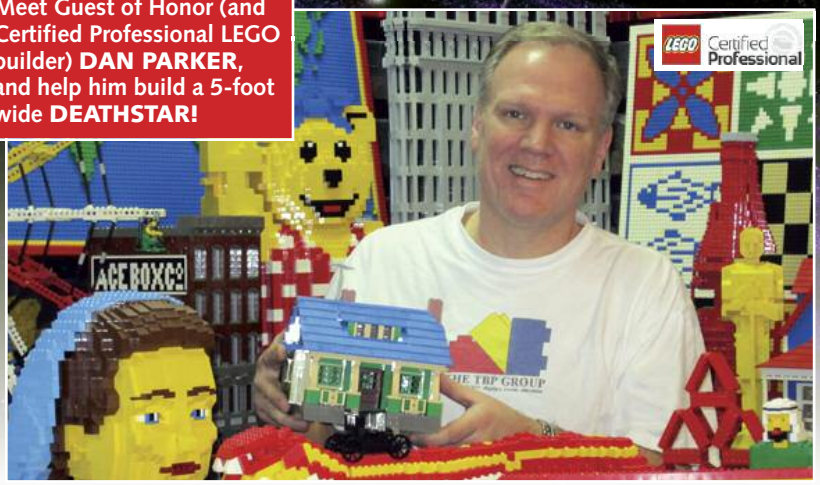


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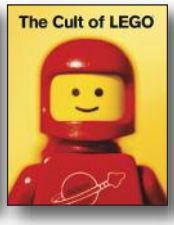


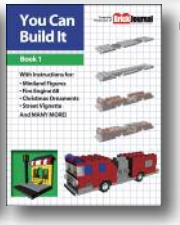


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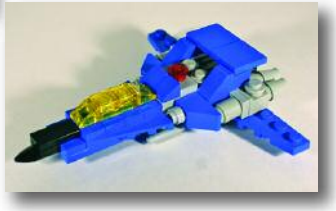

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Issue 18 • March 2012

# BrickJournal

people • building • community

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BrickJournal
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**March 2012**
**Issue 18**

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**Many thanks to the websites who have served as mirrors for *BrickJournal*:**
www.LUGNET.com, www.Brickshelf.com, www.peeron.com, www.brickmodder.net www.rustyclank.com

**About the Cover:**
*Japanese Mountain Temple. Built by Takuya Taxon. Photo by Takuya Harajo.*

**About the Contents:**
*Closeup of Brick Fan Town. Photo provided by Yoshikazu Saito.*

# From the Editor(s):

Well....This issue came from the idea of showcasing builders that haven't been seen very often. Japan is a place with incredible builders, but compared to Europe and the US, they have a low profile. Part of why this happens is the language barrier, but another part is that what is seen is only online, where a good build or layout is quickly glanced at, only to be put aside for the next hot MOC.

I have wanted to go beyond the borders of the builders I have met and seen, and this issue is a major step to the horizon. Thanks to Nathan Bryan, who wrote, met AFOLs and photographed for this issue. He also has some thoughts too...

> *It has been a pleasure traveling around Japan, meeting other people involved with and enthusiastic about building with LEGO bricks. Everyone was so helpful, from doing research, providing information and contacts, to helping with or actually writing articles. I hope that through these articles, the many wonderful things being done with LEGO here in Japan shines through. I would like to say a big Domo Arigato Gozaimashita to everyone for their support in putting this issue together!*
>
> *2012 is the 50th year since LEGO products became available in Japan, and their popularity, with both kids and adults, continues to expand tremendously. This year a LEGO Discovery Center opens in Tokyo, and in 2015 a LEGOLAND in Nagoya. The popularity will just build and build and build!*
>
> *Nathan Bryan - Japanese Bureau Editor*

Comments on this issue are welcome! Are there other places to spotlight? I'm sure there are!

Joe Meno, Editor

P.S. Have ideas or comments? Drop me a line at admin@brickjournal.com. I'm open to suggestions and comments and will do my best to reply.

P.P.S. Yes, *Brickjournal* has a website — www.brickjournal.com! Twitter? Yep, there too — http://twitter.com/brickjournal. Facebook? Yup — http://www.facebook.com/group.php?gid=58728699914&ref=mf.

P.P.P.S. If you want info on a subscription, you can go to www.twomorrows.com or scan the code at right!

## Glossary

**AFOL** (Adult Fan of LEGO)
**NLSO** (Non-LEGO Significant Other)
**MOC** (My Own Creation)
**TLG** (The LEGO Group)
**BURP** (Big Ugly Rock Piece)
**LURP** (Little Ugly Rock Piece)
**POOP** (Pieces—that can be or should be made—Of Other Pieces)
**SNOT** (Studs Not on Top)
**LUG** (LEGO Users Group)
**LTC** (LEGO Train Club)



BrickJournal *and its staff would like to thank the LDraw community for the software it makes available to the community, which we use for making all of the instructions and renderings in this magazine. We would especially like to thank Kevin Clague for his continued upgrades of the LPub tool that is a part of the LDraw suite. For more information, please visit http://www.ldraw.org.*


# Powered by LEGO® Fans!

*Article by Megan Rothrock*
*Images provided by the LEGO Group*

*You know ReBrick.com is a new website from the LEGO Group, but did you know that this innovative social media hub which highlights what AFOLs create with the LEGO Brick was created with help from members of the AFOL Community?*

BrickJournal *met recently with Tormod Askildsen, Senior Director of Community Engagement & Events; Peter Espersen, Online Community Lead; and Signe Lønholdt, Community Editor Online Community from the LEGO Community Engagement and Events team at their headquarters in Billund, Denmark.*


*Peter Espersen*


*Tormod Askildsen*


*Signe Lønholdt*


*Mads Mommsen*

***BrickJournal:* How long has LEGO ReBrick been in development?**
**Tormod Askildsen (TA):** We started the ReBrick project about three-and-a-half years ago. An external agency, Naked Communications, pitched an idea to us. The idea was pretty close to the LEGO Fan concept (a web portal for both new and experienced LEGO fans and the community) which was born back in 2004 and established by a group of fans. In September 2008, there was a meeting near London with three LEGO Ambassadors and a group of LEGO employees. From the feedback during this meeting, the initial concept of ReBrick was formed. One of the "ground rules" established early on was that ReBrick should highlight content already available on community sites, thus drive traffic to fan sites rather than be an alternative destination. Also, ReBrick should have a global scope and be developed with members of the LEGO community while seeking to add features different from those of the major fan sites.

**Peter Espersen:** When I joined the LEGO Community team a little over two years ago the project was still in the concept phase. Over the last two years we moved from the many early sketches, business model discussions and power point slides to a closed beta in late 2010 and open beta a year later. We had many challenges getting it off the ground, as internally we needed to prove it was a solid business case in order to get funding for the project, and involving the LEGO Fan Community from the beginning was an important part of this.

We invited quite a number of people from Community sites, LEGO Ambassadors, and others who we felt could contribute to the project—gathering their opinions and creating surveys around it, for example what colors to use, blue or yellow, themes to have and so forth, and everyone involved could vote on this.

***BrickJournal:* What is the basic idea behind ReBrick?**
**PE:** In the area of LEGO user-developed content, the LEGO Community is a juggernaut; they create some of the most amazing social objects in the world!

We wanted to celebrate and facilitate even more action around this, but it was essential with ReBrick to communicate that The LEGO Group should not

*The first internal LEGO training session for Rebrick.*

be the focus of the attention; it is the LEGO Fan Community and what they can do with LEGO Bricks that is important. The basic idea is to display all of this interesting stuff that is out there and show off how powerful LEGO is as a storytelling medium while bringing this excitement to a broader mass of people who then might get more excited, be inspired, and maybe even buy some LEGO sets and start building their own things.

***BrickJournal:* Oh definitely, just by going to LEGO events you can see how the visitors get very inspired by what is possible to create with LEGO bricks!**

**PE:** With thousands of websites out there dedicated to the LEGO hobby, hundreds of blogs and millions of articles, videos and images of inspiring creations, which in one way or another focus on the LEGO brick, it can be a challenge for AFOLs to share their models with the masses. For example an early member of the Community who has been building models for many years and sharing them on sites like LUGNET, BrickShelf, and MOC pages can reach most of the community, but if they wanted to gain a broader reach for their creations, then we can help by sharing it on ReBrick and other social media tools like Facebook, Twitter and other LEGO sites, of course crediting the original owner.

For a 'newcomer' to the LEGO hobby it is a challenge figuring out where to go. If you are interested in, say, Trains or Space, where should you go? So that is something we have tried to do with LEGO ReBrick: create a hub. We don't host any content; we just highlight and direct users to those places where the content is. It is not interesting for us to have a lot of traffic only to our site; we want the **whole** of the LEGO Fan Community to have the traffic.

I also feel that the LEGO Community deserves that we give some of the love back, it is something that we really wanted to do for them. People inside the company are very excited by what is going on with the Community. But it is very important that ReBrick is a benefit to the Community sites and that AFOLs don't feel that we are trying to 'take over'. We are not managing anything, we are trying to amplify what goes on out there. If the Community sites get more traffic then we are very, very happy.

***BrickJournal:* Are there any plans for the future of ReBrick?**
**PE:** Yes, LEGO ReBrick is ever evolving and changing. It isn't like we have launched our site and now it is done. That was just the first step, and now we will continue working with the LEGO Fan Community to help us further with new features. We don't want to do it if the Community is not with us. So yes, we will keep evolving!

Some of the AFOLs have been quite specific and challenging with feedback; we had one fan say, "Hey, isn't this code a bit messy?" Others have said, "It doesn't work in these browsers, and what about the iPhone, iPad, other tablets and devices?" They were so smart; it gave us excellent leverage to stress the development team even more!

***BrickJournal:* How many members does the LEGO ReBrick Team have?**
**PE:** The core team is myself (Peter Espersen), Signe Lønholdt, Mads Mommsen, and Tormod Askildsen. However we work with hundreds of people across the LEGO Company including LEGO Designers and also a wide range of external companies and partners—first of all Community Partners like *BrickJournal*, MOC pages, Brickshelf, Brothers Brick, and so on and then with technology partners like Microsoft, Google, Facebook and Flickr.

**So Flickr is also on board with ReBrick?**
**PE:**Yes, they are; we have been very fortunate that we have been able to meet the right people. When we have contacted these companies, it has been endless excitement for all involved. For our meeting with Google, we thought there would be one or two people there, and there were thirty who were all excited about the idea! I hope some of the interesting things that could develop over time would be that people in Google, Flickr or another similar company getting inspired from someone in the community or vise versa; I think that would be very cool.

***BrickJournal*:: Absolutely, there is a huge potential for cross involvement with those companies.**
**PE:** Yes, these companies have huge groups of LEGO fans among their employees!

***BrickJournal*:: That is brilliant! I think it is a great service to give to the LEGO Fan Community and has huge potential to expand, grow and bring people together.**


*The Hayabusa set.*

# LEGO® CUUSOO Goes to Space!

*Article by Joe Meno*
*Photography provided by the LEGO Group*

*Cuusoo* means "wish" in Japanese. It's also a firm that joined with the LEGO Group in 2009 to create a online platform to submit proposals for LEGO sets and other ideas. Initially started in Japan, the partnership has yielded two LEGO sets: The Shinkai 6500 research submarine, and now the Hayabusa space probe.

## Inspiration

Hayabusa ("Falcon" in Japanese) was a space probe that was launched in 2003 to land on an asteroid, retrieve surface samples and return to Earth. This was a pioneering mission in that it was the first space probe to accomplish a sample return from an asteroid. The mission is what inspired Daisuke Okubo, a Japanese graphic designer of user interfaces and web design, among other things, to submit Hayabusa to the LEGO CUUSOO website.

Daisuke was not the builder of the model he submitted, though. When asked about his building skills and if he is a LEGO builder, he replies, " I am, but I am not a good builder. I submitted a model built by in81212 (who collaborated with Daisuke)." He continues,"I was inspired by the mission of Hayabusa and the success of the Shinkai 6500 as a LEGO CUUSOO set."

LEGO CUUSOO's Japanese platform allows an idea to be considered for production when 1000 people vote to support the idea. Naturally, the challenge is to find those supporters. Daisuke used Twitter—he searched for people who were fans of Hayabusa, fans of space, and fans of LEGO. He also added

links to his CUUSOO project webpage and his profile to his Twitter profile. With those in place, anyone who saw these could go and become a supporter.

Daisuke didn't have any doubts about reaching 1000 supporters. He says, " I believed that I would gather the needed supporters. Since Hayabusa was very popular (in Japan), once I announce my project, I thought that many supporters would come. It was also publicized on Twitter by my tweets and many other retweets."

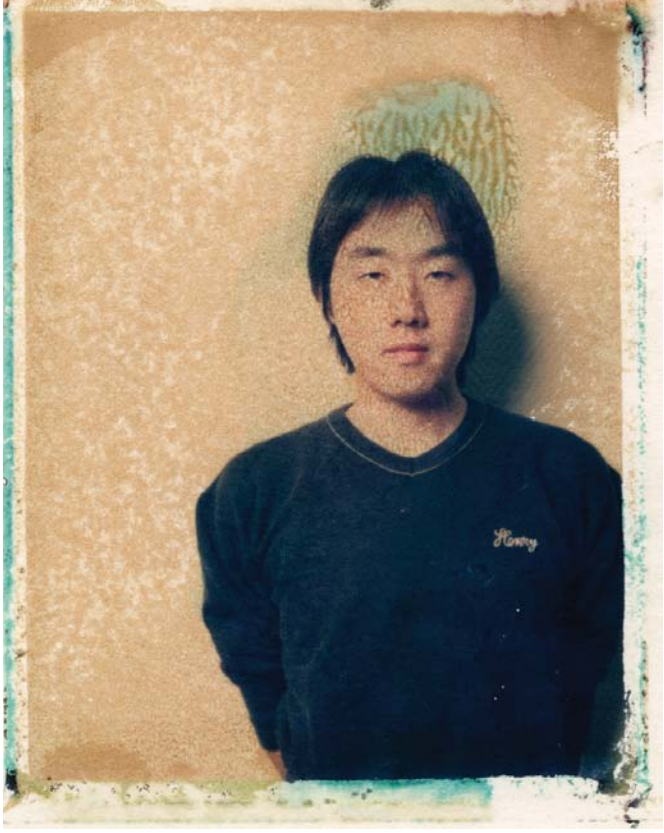
The Hayabusa project was first posted on LEGO CUUSOO in January 2011. By April, thanks to the efforts of Daisuke and many Japanese websites and blogs, the 1000 supporter threshold was achieved. The LEGO Group sent a congratulatory message to Daisuke:

> "Congratulations Daisuke on reaching 1,000 votes on your product idea: The Hayabusa!
>
> "We are very encouraged by the strong support this model has from the voters, and I hope that we will be able to reward your support with a new Hayabusa LEGO product. We wish to thank all voters for their great interest and enthusiastic engagement."
>
> Here at LEGO we are amazed at how fast it reached the threshold and we are now really looking forward to evaluate the model. We will now do some serious analysis on the business case and other decision parameters. We will therefore get back to you in 4 weeks time with a decision on whether it will be produced and if so, when we will launch it. We are looking forward to working with the model. "

By July, the decision was made to produce a Hayabusa set. Daisuke was able to meet with staff from LEGO Japan, JAXA (the Japanese Space Agency), and LEGO CUUSOO. At the meeting, the Hayabusa concept model was shown and reviewed. Daisuke also discussed the possibility of including a minifigure of Junuchiro Kawaguchi, Project Manager of Hayabusa. From there, the project proceeded under the guidance of LEGO CUUSOO.

Reflecting on the process, Daisuke most enjoyed the online engagement he received from the project. He tells, "I was able to meet many people through Twitter. I first met people who wanted to support LEGO Hayabusa, but after that, I chatted on Twitter, and got to meet several people. I was happiest about meeting many people who share the same hobby as I do in this project."

Daisuke isn't standing still either. He's proposed another CUUSOO project, this time the Japanese Venus Climate Orbiter, Akasuki *(http://lego.cuusoo.com/ideas/view/486)*. As he puts it, "Akatsuki is the younger brother of Hayabusa." He's also created a LEGO fan page on Facebook, LEGO FAN *(http://www.facebook.com/LEGOFAN.jp)*. With these, his projects continue to engage the community.



*Daisuke Okubo*

*The first model, built by in81212, and posted online by Daisuke.*

*Set designer for the Hayabusa set, Melody Caddick.*

## The LEGO Group

# Kazuyoshi Naoe: Building in Japan!

*Article by Nathan Bryan of Brickzen.com*
*Photography by Nathan Bryan and Kazuyoshi Naoe*

*Kazuyoshi Naoe is the Official LEGO Japan Certified Model Builder. He builds many of the LEGO models that are used for LEGO Store displays as well as big dioramas and large scale LEGO models for special events.* BrickJournal *got a chance to sit down with him at the LEGO Japan Head Office in Tokyo to talk brick.*


*Kazuyoshi Naoe with his favorite magazine.*

***BrickJournal:* How did you become a model builder at LEGO Japan?**

**Kazuyoshi Naoe:** In high school I worked part-time in a small toy store, then I worked for a large company with LEGO Japan as one of the clients. In 2000, I started with LEGO Japan in the Marketing section which is where I still work now. I was asked to help with some building for an event and I found out that I really have a knack for it.

LEGO Japan used to have most of the large models sent from the LEGO head office, but the shipping cost was very high and sometimes the models got damaged and needed to be repaired. It made more sense to build them here in Japan, so that became one of the things I do.

***BrickJournal:* Do you just build models every day at LEGO Japan?**

**KN:** I am still part of the marketing department, so the majority of my time is spent working on setting up LEGO events in Japan, not building, unfortunately. I need to write up proposals, find venues, sponsors and put together the events. I then will build special models for display at the events.

*Naoe's model of Times Square for Nasu's LEGO Stadium.*

*Matsue Castle LEGO model. Inset: The real present-day castle.*

## Set Reviews

# LEGO Employees' Choice

I was thinking one day about the set I should review for this issue of *BrickJournal* when I got an idea of something a bit different to do. I contacted some employees of The LEGO Group and asked them what sets they would like to see me review. I also asked them to tell me why they liked the sets.

As a bonus, I like the set I got for Christmas so much that I decided to review it as well. Below is the list of people that contributed, and their position within the company.

*Article and Photography by Geoff Gray.*
*Official set photos provided by The LEGO Group.*

### Jørgen Vig Knudstorp
**Chief Executive Officer**

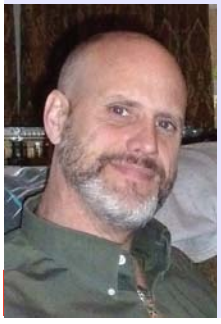
Lighthouse Island (#5770)
*"This one is special to me as it was given to me by the executive assistants in my office."*


### Tormod Askildsen
**Senior Director, Community Engagement & Communications**

Life of George (#21200)
*"There is a lot of humor involved, and the way people contribute to build and expand the story is wonderful."*


### Jamie Philip Berard
**Senior Designer, Creator Design Team**

Bounty Hunter™ Assault Gunship (#7930)
*"I even make my own sound effects when tilting the engines back and forth during take-off and landing!"*

### Geoff Gray
**Photo Editor, *BrickJournal* Magazine**

Queen Anne's Revenge (#4195)
*"I love the use of skeletons and bones to make some of the detail unique and appropriate for the model."*

# Lighthouse Island

## Chosen by Jørgen

### *Jørgen's Thoughts:*

My pick would be the Creator set with the light tower (sorry, on a plane I cannot remember the set number). I love building all our creator sets because it is such a classic and versatile building experience and there are many good elements that can be used for later play experiences. This one is special to me as it was given to me by the executive assistants in my office, when I celebrated my ten years of service anniversary earlier this summer. I built it with my son Zacharias (7) and he had many hours of play with it afterwards. The functionality (the side of the tower opens, there is real light in the tower) was much appreciated by Zachy.

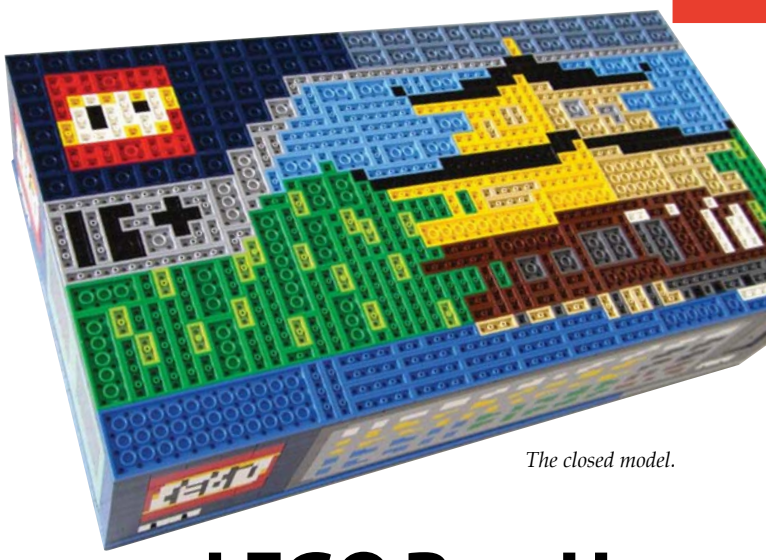
**I wanted to have a "night-time" shot of the set where the light could be seen. I grabbed a fog machine we use during Halloween and set up this scene. I love the way the light, reflecting off the silver sticker, pierces the fog and mist.**

### *Geoff's Review:*

The lighthouse set is one that I have looked at many times and almost purchased each time. When I found out that Jørgen picked this set, I was very excited. Being a Creator set, there are instructions included for three different builds. I chose to go straight to the main model when I started the build. The things I really like about the set are the small details throughout, including the interior of the light-keeper's living quarters, which are seen by opening the side wall of the structure. However, my favorite two things are the functionality of the light itself, and the seagull carrying a fish.

The light element is the standard Power Functions light brick with a push button on the back side. One of the big advantages of this light is the fact that it contains a replaceable battery. The light is at the very top of the lantern house and shines straight dome onto two slopes that have a silver sticker. This acts as the mirror. The slopes are different angles so the light will reflect in two beams (see the photo of the light in the fog). The mirror is hooked to a gear set that has a crank on the back of the lighthouse, allowing the mirror to spin. The light is illuminated by pressing down on the black roof of the lantern house.

The Creator theme is one of my most favorite because the models show how to "get back to the basics" and be creative with building models. It is designed to be built, torn apart and built again differently. With other sets (such as Queen Anne's Revenge, reviewed later in this article) I hesitate to take it apart because the kit was designed for a specific model and the pieces are geared toward that model, but I rarely leave a Creator set built because I want to see what else I can build with it.



*The closed model.*

# LEGO Pop-Up: Kinkaku-ji of Takayuki Kawahara

*Article by Nathan Bryan of BrickZen.com*

If you have yet to see Takayuki Kawahara's "LEGO Pop-Up Kinkaku-ji" then first put down this article, fire up your computer and check out:
*http://www.youtube.com/watch?v=uYlA3NV0rFA*

Pretty amazing, yes?

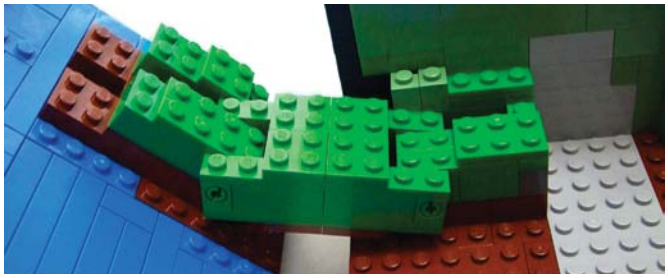
The 3-minute and 40-second video put on YouTube in 2009 has received over 1 million views and been featured on quite a few LEGO and web blogs. The model consists of over 4,500 pieces, weighs more than four kilograms and took about 200 hours over a two-month span to build.

The creator of this ingenious model, Takayuki Kawahara, first started playing with his older brother's LEGO "London Bus" when he was a little child. He switched to video games but four years ago when building a simple LEGO car for a relative's kid, he got hooked again.

Takayuki is quite an avid fan of puzzles, having once run a site for puzzlers, and was looking to try something that no one else had ever done. Being a fan of mathematical and three-dimensional puzzles, he originally tried to create an origami crane out of LEGO elements. He gathered a number of LEGO airplane wings and plates, but the plate thickness of the LEGO pieces made things too difficult. Then he hit upon the idea of trying a "Pop-Up" something. He did some online searches and could not find any examples of other people doing this and so he made it as a puzzle challenge for himself to figure out.

At first Takayuki could not decide if he wanted to do Kinkaku-Ji (Temple of the Golden Pavilion) in Kyoto or a five-story pagoda such as those found throughout Japan. While the folding mechanism for a pagoda might have been easier, since it has five stories, he felt the weight would be too much, and focused on Kinkaku-ji, a three-story structure.

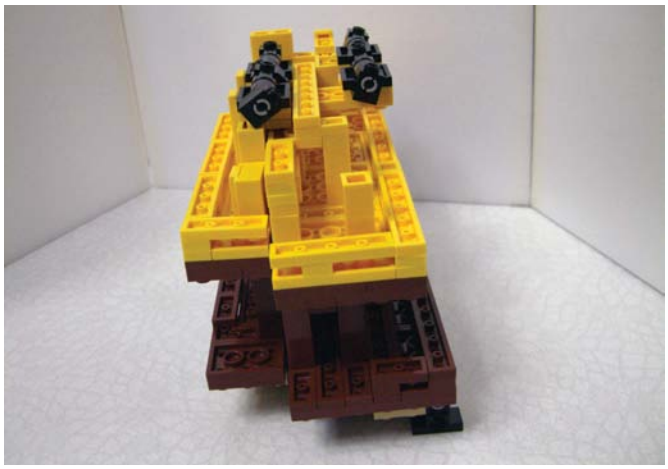
*The open model.*



*One of the box hinges used in the model.*

*A look at one of the building hinges: Turn around...*

*...and as the box closes....*

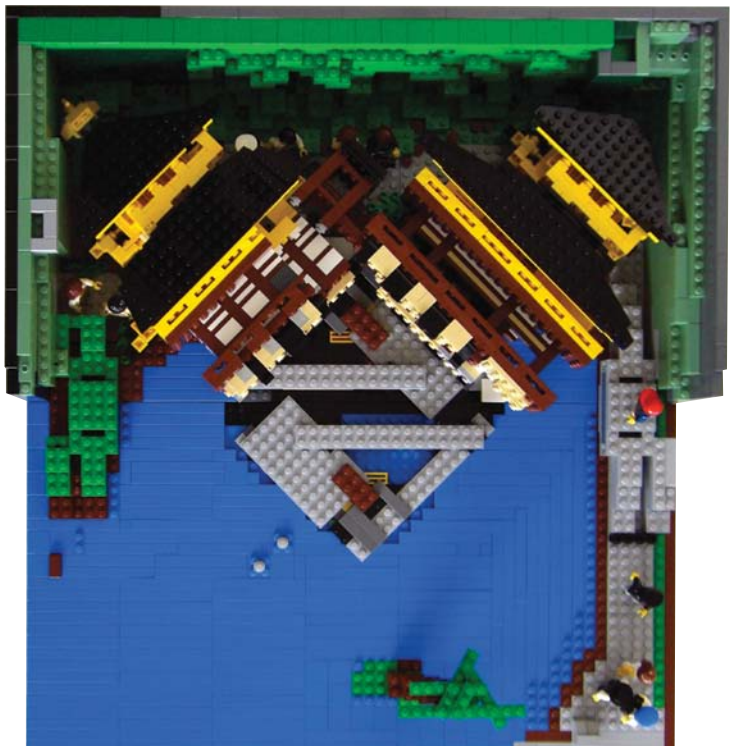


*...the wall folds together to fit in the box.*

If one was to make a Pop-Up Kinkaku-Ji out of paper, one would need to make the walls, floor and roof all fold flat. Since it is not possible to really "fold" LEGO pieces flat, he figured that he wouldn't worry about the floor and just concentrate on getting the walls and roof to fold a reasonable amount. The most difficult part was getting the small "partial roof" on the first floor to fold. He was able to do this by separating the small roof from the wall a bit and getting it to "store" itself next to the wall when folded. By using this technique he was able to get things to fold flat with a relatively small amount of thickness. Since he was going to end up with some thickness anyway, he figured out that instead of trying to have the entire model fold flat, he would have it fold into a "box" and that he would make it look like a standard LEGO box. This was the main breakthrough that enabled the model to be built.

Another challenge was getting the entire model to hold together when opening or closing. He had never really used Technic parts and so in the build, he tried to use as many standard bricks as possible. Since he did not want to use any glue, he needed to rely solely on the clutch power of the LEGO bricks to keep the model together when being opened or closed. In the beginning, there were many times that the model came apart, falling into many pieces as he tested the opening and closing. While this was one of the most challenging parts of building the model, in liking puzzles, figuring out what would be needed to hold it together was also one of the most enjoyable parts. In its final form, each quarter of the folding pieces of the temple is held by around 10 studs at any given angle. For the pattern of the box he created a mosaic plan, but for the rest of the model he just used trial and error.

After he had the model almost completely finished, he really wanted to try to create a "mirror pond" that reflects a "Reverse Kinkaku-Ji" similar to what is at the real temple. He managed to do it with polished blue tile pieces, but still isn't as happy with the result as he would like to be. Due to the weight he has never displayed the model anywhere; in fact, it hasn't left his house.



*Right: The model folded in the box.*

*Figure 1: EL wire TRON Light Cycle, illuminated with 1.5 ft of EL wire and a 1 AA battery box/inverter.*

## Minifig Customization 101:

# Introduction to Lighting Custom Minifigures and LEGO Elements

*Article and Art by Jared K. Burks*

*You can go to Jared's webpage by scanning this QR code!*

It's an area of customizing all its own: it has the ability to completely transform an awesome figure into a completely unforgettable figure. The LEGO Group has even tried to accomplish this area of customization. This area of customizing can be a bit overwhelming as it involves electricity and batteries, which means caution must be used. Well, the title has already given it away — it is lighting the figure. Hopefully after reading this article you will feel more comfortable attempting a lighting project on your favorite figure. Lighting projects are typically done by one of two sources, LED or EL wire. This is a very complicated set of modifications; as such, this article will cover the basics and give one example with some photos of what can be done. Later an additional, more advanced article will cover a more involved project. Please note, unless kits are used, soldering is required for many of these projects. This is an advanced skill and beyond the scope of this article. There are many great tutorials online (one is noted in the reference section), so please review a tutorial before attempting this yourself.

### Lighting: LED and EL

LEDs, or **L**ight **E**mitting **D**iodes, have been around since the early '60s and have recently become very small and very inexpensive. You will find them everywhere from flashlights to light bulbs to TVs and even in stores like IKEA. They come in a wide array of colors and sizes. These little lights practically never burn out and use very little power, which make them perfect for LEGO lighting projects. Most often LEGO projects use small surface mount (SMT) LEDs (common size for minifigure projects are 1.25 mm x 2 mm). These can be found very economically on

# Japanese Stone Lantern (Ishidoro)

*Design by Kunie DeVorkin*
*Instructions by Joe Meno*

Kunie DeVorkin is a LEGO builder who resides in the DC area. This model is one of her many works that have been seen at LEGO fan events, such as Brickfair and BrickMagic. She talks about this model here:

> A few years ago, I was asked to come up with something simple and Japanese for the Cherry Blossom Festival in DC. "Simple" was a challenge since there are lots of Japanese things one could build but they often involve lots of bricks. Then I thought about a stone lantern.
>
> The house I grew up in Japan had a small but formal garden. And it had a stone lantern like a lot of gardens that other houses had. It was in the center of the garden behind a pine tree and had lots of moss growing on it.
>
> I don't think I ever touched it since I would have had to go around some bushes that had prickly leaves. Stone lanterns are everywhere in Japan; in private gardens, formal gardens, temples and the like; and they come in many different shapes. But I never saw it with any lights or fire in it.

Stone lanterns came to Japan from Korea and China in the sixth century and were used as votive lights at temples and shrines. In the 16th century, stone lanterns were adopted by the secular community and placed in the gardens of tea houses and residences.

## Parts List

*(Parts can be ordered through Bricklink.com by searching by part number and color)*

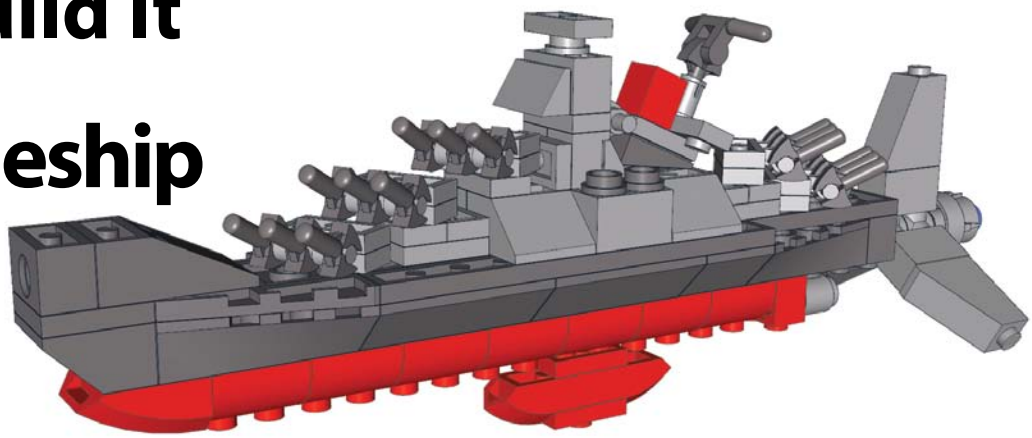
| Qty | Part | Description | Color |
|---|---|---|---|
| 4 | 30039.dat | Tile 1 x 1 with Groove | Dark Bluish Gray |
| 8 | 3010.dat | Brick 1 x 4 | Dark Bluish Gray |
| 1 | 4201.dat | Brick 8 x 8 | Dark Bluish Gray |
| 8 | 3005.dat | Brick 1 x 1 | Dark Bluish Gray |
| 4 | 3069b.dat | Tile 1 x 2 with Groove | Dark Bluish Gray |
| 14 | 3001.dat | Brick 2 x 4 | Dark Bluish Gray |
| 1 | 3958.dat | Plate 6 x 6 | Dark Bluish Gray |
| 12 | 3068b.dat | Tile 2 x 2 with Groove | Dark Bluish Gray |
| 8 | 2357.dat | Brick 2 x 2 Corner | Dark Bluish Gray |

# You Can Build It

*MINI Model*

# Space Battleship *Yamato*

*Design and Instructions by Christopher Deck*



Hello everybody! I am glad to join you again for the newest issue of *BrickJournal*. For this issue, themed around Japan, we want to build a mini model from the Japanese anime series *Space Battleship Yamato* which was first aired in 1974. In fact, we want to miniaturize the gargantuan space battleship itself.

The Space Battleship *Yamato* is based on a real naval battleship, modified for space operations. No longer afloat in water, this means that we now see the entire boat hull, especially the bottom of the vessel which is difficult to construct. In order to get the rounded shapes for the hull and keel right, the entire ship was constructed studs-down. This way it was possible to use sloped wedges for the hull and curved bricks for the keel. The bricked miniaturization also comes complete with command tower, signal mast, space engines, maneuvering fins and bristles with cannon turrets.

Enjoy building and see you next time!

## Parts List *(Parts can be ordered through Bricklink.com by searching by part number and color)*

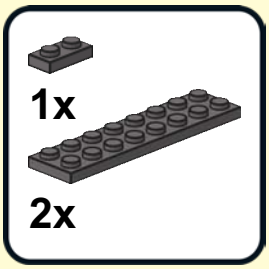
**Main Hull**

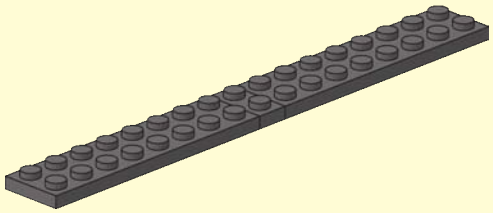
| Qty | Color | Part | Description |
|---|---|---|---|
| 2 | Light-Bluish-Gray | 3062b.dat | Brick 1 x 1 Round with Hollow Stud |
| 2 | Light-Bluish-Gray | 4070.dat | Brick 1 x 1 with Headlight |
| 3 | Light-Bluish-Gray | 3004.dat | Brick 1 x 2 |
| 1 | Red | 40996.dat | Brick 1 x 4 with Sloped Ends and Two Top Studs |
| 7 | Red | 30165.dat | Brick 2 x 2 with Curved Top and 2 Studs on Top |
| 1 | Light-Bluish-Gray | 3001.dat | Brick 2 x 4 |
| 1 | Trans-Blue | 6188.dat | Cone 1 x 1 |
| 1 | Light-Bluish-Gray | 6141.dat | Plate 1 x 1 Round |
| 4 | Dark-Bluish-Gray | 6141.dat | Plate 1 x 1 Round |
| 1 | Red | 3023.dat | Plate 1 x 2 |
| 6 | Light-Bluish-Gray | 3023.dat | Plate 1 x 2 |
| 1 | Dark-Bluish-Gray | 3023.dat | Plate 1 x 2 |
| 1 | Red | 3794.dat | Plate 1 x 2 with 1 Stud |
| 1 | Light-Bluish-Gray | 3794.dat | Plate 1 x 2 with 1 Stud |
| 1 | Light-Bluish-Gray | 2540.dat | Plate 1 x 2 with Handle |
| 2 | Dark-Bluish-Gray | 4477.dat | Plate 1 x 10 |
| 3 | Light-Bluish-Gray | 3022.dat | Plate 2 x 2 |
| 1 | Dark-Bluish-Gray | 3022.dat | Plate 2 x 2 |
| 2 | Dark-Bluish-Gray | 3034.dat | Plate 2 x 8 |
| 2 | Light-Bluish-Gray | 85984.dat | Slope Brick 31 1 x 2 x 0.667 |
| 1 | Dark-Bluish-Gray | 3747a.dat | Slope Brick 33 3 x 2 Inverted without Ribs between Studs |
| 3 | Dark-Bluish-Gray | 3039.dat | Slope Brick 45 2 x 2 |
| 4 | Light-Bluish-Gray | 3660.dat | Slope Brick 45 2 x 2 Inverted |
| 4 | Dark-Bluish-Gray | 3037.dat | Slope Brick 45 2 x 4 |
| 3 | Light-Bluish-Gray | 60481.dat | Slope Brick 65 2 x 1 x 2 |
| 1 | Red | 30602.dat | Slope Brick Curved Top 2 x 2 x 1 |
| 1 | Dark-Bluish-Gray | 6587.dat | Technic Axle 3 with Stud |
| 1 | Dark-Bluish-Gray | 32064a.dat | Technic Brick 1 x 2 with Axlehole Type 1 |
| 1 | Dark-Bluish-Gray | 3700.dat | Technic Brick 1 x 2 with Hole |
| 1 | Red | 32000.dat | Technic Brick 1 x 2 with Holes |
| 1 | Light-Bluish-Gray | 32000.dat | Technic Brick 1 x 2 with Holes |
| 2 | Light-Bluish-Gray | 57585.dat | Technic Bush with Three Axles |
| 2 | Light-Bluish-Gray | 4274.dat | Technic Pin 1/2 |
| 1 | Light-Bluish-Gray | 32187.dat | Technic Transmission Driving Ring Extension |
| 2 | Dark-Bluish-Gray | 43721.dat | Wedge 4 x 2 Sloped Left |
| 2 | Dark-Bluish-Gray | 43720.dat | Wedge 4 x 2 Sloped Right |
| 1 | Dark-Bluish-Gray | 43719.dat | Wing 4 x 4 with 2 x 2 Cutout Signal Mast |
| 1 | Dark-Bluish-Gray | 48729.dat | Bar 1.5L with Clip |
| 1 | Red | 3005.dat | Brick 1 x 1 |
| 1 | Dark-Bluish-Gray | 30031.dat | Minifig Handlebars |
| 1 | Light-Bluish-Gray | 63868.dat | Plate 1 x 2 with Clip Horizontal on End |
| 1 | Light-Bluish-Gray | 3623.dat | Plate 1 x 3 |
| 1 | Dark-Bluish-Gray | 61409.dat | Slope Brick 18 2 x 1 x 2/3 Grille |
| 1 | Light-Bluish-Gray | 4274.dat | Technic Pin 1/2 |

**Turrets**

| Qty | Color | Part | Description |
|---|---|---|---|
| 15 | Dark-Bluish-Gray | 48729.dat | Bar 1.5L with Clip |
| 5 | Light-Bluish-Gray | 3794.dat | Plate 1 x 2 with 1 Stud |
| 5 | Light-Bluish-Gray | 2540.dat | Plate 1 x 2 with Handle |

1



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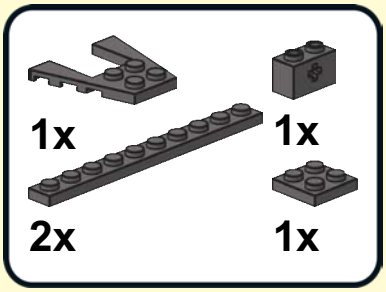


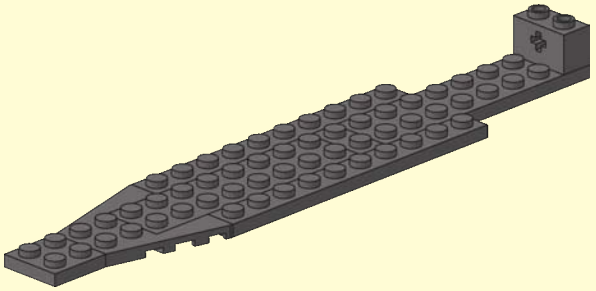

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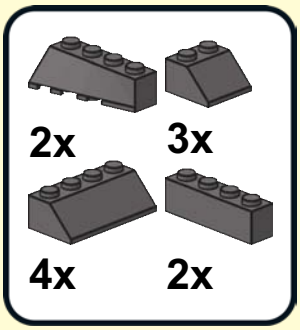


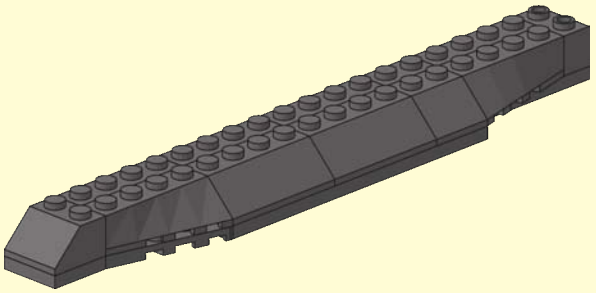

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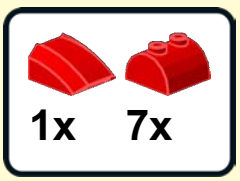


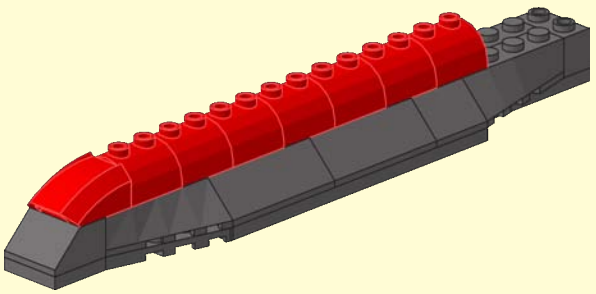

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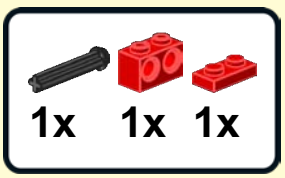


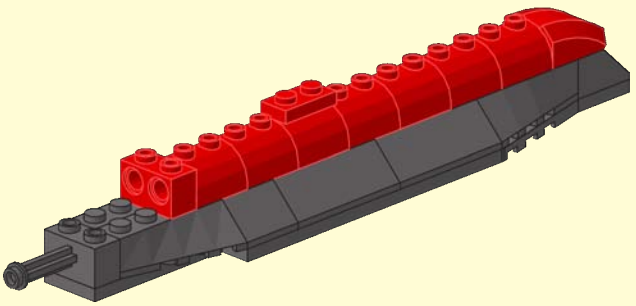

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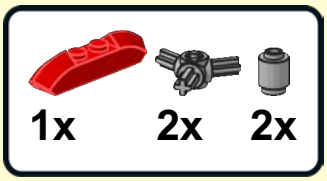
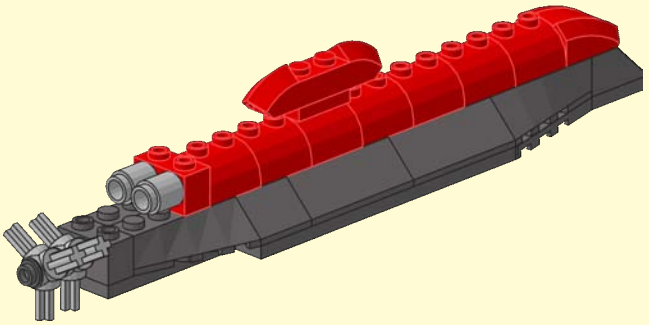



*The University of Tokyo's logo, rendered in LEGO bricks.*

# The Todai (University of Tokyo) LEGO Club

*Article by Jumpei Mitsui, LEGO Certified Professional Builder*
*Translated by Nathan Bryan of BrickZen.com*

In Japanese universities, when people get together to deepen their interest in a certain hobby, these groups are called "Circles." Some are for indoor things like Shogi (Japanese Chess) or Go (another game), others are for sports like tennis or karate. At one time there was no Circle for LEGO bricks. I decided to setup a circle for LEGO building with a few friends the year I joined the University of Tokyo (Todai). As a result, the university now has a club called the "Todai LEGO Club." Just a few years ago, things were much different.

In 2005, when I was still a high school student, I saw a post on an internet community site (like Facebook). A student, Keiichi Morita, had posted, "I would like to make Yasuda Auditorium (The University Clock Tower) out of LEGO bricks." Several other Todai students had joined him to make it a reality.

Keiichi had never built a large model with LEGO bricks, but he was fascinated with the architecture of the Yasuda Auditorium and was determined to "recreate the Yasuda Auditorium with LEGO bricks." None of the other people involved at that time had any experience in building large LEGO models, and were facing the difficulties of not knowing how to design a large model, or even how to procure the bricks needed for one. When I entered the University of Tokyo in April of 2006, I immediately posted to the community and told them that I would like to get involved. I had made quite a few large models, many with tens of thousands of

pieces. I knew how to obtain bricks through BrickLink, how to design models with LEGO graph paper and other experience for the construction of large models. There was around six months of preparation and, in the autumn of 2006, production began. Around that time, I had also discovered at the University of Tokyo a very good builder who had been posting nice models on BrickShelf, Koichi Omura. Being an excellent builder of minifig-scale propeller airplanes, I had seen many of his works on the internet and was a big fan of Omura. I remember being very surprised to find out that not only was he also a Todai student, but was the same age as me.

Including him, the five of us started on the project. Omura had other projects he was working on, but over a period of four months, we were able to complete the building of the Yasuda Auditorium out of LEGO bricks. Some of the people participating were very experienced with building with LEGO bricks, and some had little experience (and all five of us had different academic majors), but through cooperation and coordination we were able to create a wonderful model. The completed Yasuda Auditorium was displayed at the Tokyo University May Festival in May of 2007. Although it was our debut exhibition, we won a popular vote by visitors and took first place in the Model Division. It was also published by newspapers all over Japan and the model was featured by national media after the exhibition.

Although there was a lot of hard work put into the build, the Yasuda Auditorium model was scheduled to be dismantled after the exhibition. However a savior appeared. An event planner that had come to see the festival, saw the Todai LEGO Club model and offered to have it shown in a department store. The store proposed was the Nihonbashi Mitsukoshi in downtown Tokyo, one of the most prestigious venues available. It proved to be an extremely popular exhibition there and during this time the University of Tokyo contacted us about the model and purchased it as a souvenir for the university's 130-year anniversary. In this way the LEGO brick Yasuda Auditorium was saved from destruction and will be held and displayed permanently by the university.

*Yasuda Auditorium LEGO model.*

*The rear of the Yasuda Auditorium LEGO model, showing the roof detail.*

We had achieved the goal of "Creating the Yasuda Auditorium out of LEGO bricks." Since there was such great teamwork, we decided to create the Todai LEGO Club and continue making and displaying models. Since then we have created many models for exhibition at each year's school festival. None of the original members remain, but each year new students join, and currently there are more than ten members in the club. So far the Red Gate (the university symbol gate), Todai Characters, the Tokyo Metropolitan Government building, and Budokan have been some of the models created. All have been featured in newspapers and magazines as well as shown

Brick Fan Town.

# Japan AFOL Challenge:

# Brick Fan Town & Brick Fan Castle

*Article by LEGO Ambassador Yoshikazu Saito*
*Translated by Nathan Bryan of* BrickZen.com
*Photography provided by Yoshikazu Saito*

## Designing Brick Fan Town & Brick Fan Castle

When many people think of Japanese MOCs they usually think of "compact models" or "models with detailed special parts" but through the cooperation of many builders, Brick Fan Town and Brick Fan Castle, large dioramas jointly built by Japanese AFOLs, were built very large while still maintaining an attention to detail.

Both displays were very well-received during their long exhibition at the "LEGO Stadium" in Nasu Highland Park, Japan. The size of the BFT was 7.5 meters by 4.5 meters (33.75 square meters or 35.6 square yards), the BFC 2.5 meters by 1.5 meters (3.75 square meters or 4.385 Square yards).

The models were dismantled at the end of August 2011 along with the closing of the "LEGO Stadium." This is a look at the displays, from sketches to models for those who may not have seen the display. Though having small workspaces, normally Japanese builders are not able build large models or projects. Hopefully, you will feel the passion that went into these projects.

## Brick Fan Town: Making a Modular European Town!

In the early stages of planning our first display, we decided to make a "LEGO Town." With members scattered all over the country, the first problem was how to get everyone to work together on this project. Luckily "Café Corner" (10182) was released and everyone agreed to use the module specifications and build at minifigure size instead of miniland scale—a larger scale used at the LEGOLAND parks.

Since we wanted to have ocean, road, and sidewalks, instead of a standard flat layout, some improvements were made. First, the ocean would be raised one plate higher than the baseplate. The roads and ground would be one brick and one plate higher than the baseplate. In this way we could be able to simulate cobblestone roads of Europe by literally building the

*The river side amphitheatre.*

*Juneau Gardens.*

## Old Town Area

First is the main town district which is built around the remnants of an ancient town. From the Arc De Triomphe, to the Fountain Square, through the amphitheater and Juneau Garden, places to soften the hearts of the residents. The main street is lined with a variety of hotels, shops and eateries. Visitors can move freely through the Archways. The main tourist highlight is the Cathedral at the heart of the area. In addition, this area also features public facilities, such as a City Hall and Central Post Office.

*The mountainside castle.*

## The Mountains

The mountainous area has a castle, one of the many symbols of the city which gives it a very historic feel. It also has aqueducts and ruins, which are features of many historic sites.

*Train station.*

## New Town Area

This area is symmetrical with the older area. Its centerpiece is the central rail station, which is the entrance to the city. The station is surrounded by office buildings and a newspaper office and is the business district of the BFT.


# Nasu Highland Park: Japan's LEGO Sacred Land

*LEGO Stadium Entrance at Nasu Highlands. Photo by Yoshikazu Saito.*

*Scheduled to close around the end of August 2011, the Nasu Highland Park's "LEGO Stadium" started as a place where people could go to view LEGO models, but quickly became a pilgrimage place for many LEGO fans in Japan and was where the BrickFan Town and BrickFan Castle dioramas were built and displayed. It was also where a LEGO Tower event was held.* BrickJournal *looks back at the events and displays at the park.*

*Article by Nathan Bryan of Brickzen.com*
*Photography by Nathan Bryan and Yoshikazu Saito*

*You can go to Brickzen.com by scanning this QR code!*

About three hours north from Tokyo is the resort area of Nasu Highlands. Located at 550 meters above sea level and surrounded by nature, it is a very peaceful place that many people from all over Japan go to relax and recharge. While the area has many second seasonal homes for people, there are also many homes and inns that people rent or reserve to stay in the area. Along with horseback riding, swimming, hiking, golf and other outdoor activities there is also the "Nasu Highland Park" amusement park.

At 500,000 square meters of space, the park features everything from rides for babies and their parents up to high-tech rollercoasters and water slides. Along with numerous amusement rides, it has animal attractions, character-based shows, and even fishing, where one can grill and eat their catch on the spot.

It was also the site of "LEGO Stadium" which became a pilgrimage place for all Japanese fans of all things LEGO for nearly a decade. And like all LEGO projects begin, it was started with an idea of a display.

## Building a Display (or two)

Around 2001, attendance was down at Nasu Highlands. Shoji Zenimura (the "Father" of "LEGO Stadium" and a director at Towa Nasu Resort Company, which owns and runs the park) was thinking of ways to increase attendance. Having a fondness of LEGO bricks since childhood, he thought some kind of LEGO attraction was what the Park needed. Starting with a small display, "LEGO World" was

*Above: Space Shuttle built by Kazuyoshi Naoe. Photo by Yoshikazu Saito.*

*Right: Downtown Shibuya Tokyo miniland model. Photo by Yoshikazu Saito.*

*Below: One of the many LEGO play tables set up in the area. Photo by Nathan Bryan.*

planned and displayed in 2002. The response was so positive that they then held a "LEGO Museum" in 2003 which was so popular that it led to the "LEGO Exposition." By this time, the displays had outgrown their upstairs location and space, so plans were made for the "LEGO Stadium."

Opened in March 2005, it became the largest collection and exhibition of LEGO creations in Japan and a must-see for any LEGO fan here. Over 1 million people visited the exhibition.

## Filling a Stadium

The main attractions were in two joined pavilions filled with different LEGO areas. There was an area devoted to LEGO history, various areas set up for LEGO themes such as a Star Wars area and an Atlantis area. There were lots of tables with bricks for people visiting to freely build, with even a large Duplo building area for smaller kids. There were many large models by Kazuyoshi Naoe (LEGO Japan's Official Builder) including a 4.2 meter high Space Shuttle display that had a "Control Center" where one could control various cameras placed around the model to get different views of it. He also visited many times to give LEGO building lessons and do onsite building so that people could watch a master builder at work.

Large diorama displays of dinosaurs, insects, and underwater scenes were built for people to walk through and experience a small taste of visiting a LEGOLAND park. There were also several miniland scale models of Japanese areas such as a European town, Times Square in New York City, Asakusa, Shibuya, Tokyo Tower and other famous buildings in Japan. There was also a miniland scale castle diorama with soldiers defending a skeleton and dragon attack.


*LEGO Education Center in Nishinomiya, Japan.*

# LEGO Education: Big in Japan!

*Article by Nobuo Miki*
*Translated by Nathan Bryan of BrickZen.com*
*Photography by Nobuo Miki*

## From Building to Learning

In Japan, the LEGO brick has been regarded as an educational toy. Using the LEGO brick as an educational tool, though, was something that happened only in the last decade. As a result, LEGO Education Centers are now in Japan, Australia and Hong Kong. The first steps toward developing the centers began in the US at MIT Media Lab.

Located at the Massachusetts Institute of Technology (MIT), the Media Lab has been the place for many technological advances, such as holograms, virtual reality, and computing. At this facility, there are generally over 200 research projects in progress at any given time. It was here in the '60s that Seymour Papert developed a method of education called constructionism, based partly on his professor's work in developmental psychology and what was later dubbed developmental learning.

One of the projects he worked on alongside his development of constructionism was a computer programming language called LOGO. Using this, children could program a robot (called a turtle) with a pen to draw graphics by using simple commands.

Papert's work on both education and programming got the attention of the LEGO Group, who began to fund his efforts in the Media Lab in the '80s. In 1998, the LEGO MINDSTORMS Robotic Set was released, named after a book Papert released in 1980, Mindstorms: Children, Computers, and Powerful Ideas. He is now regarded as the world's foremost expert on how technology can provide new ways to learn.

*The Vacuum Records LEGO Tokyo shop. Photo by Kozo Takayama.*

# From Vacuum Records to ClickBrick:

# LEGO® Bricks and Fashion in Japan

*Article by Nobuo Miki*
*Translated by Nathan Bryan of BrickZen.com*
*Photography by Kozo Takayama, nyangroove, and Nobuo Miki*

In 1962, when Asahi Trading (now CCP Co., Ltd) first started sales in Japan, LEGO sets were expensive toys that were available for purchase by wealthy families. Parents thought that by buying upscale Western style toys, their children would grow creatively and be strong in theoretical thinking. What the parents bought were not toys, but educational materials with a high value.

Eventually the price of LEGO sets came down so that everyone could buy them. While the sets were still more costly compared with other Japanese-made toys, LEGO's customer base slowly expanded. Still, the image of LEGO bricks as 'educational toys' did not go away.

This changed significantly in the late '90s. The LEGO brand became stylish and fashionable for young twenty-somethings (people who had never purchased the sets) when Vacuum Records, a record shop in Osaka, Japan began selling LEGO items. The sales were the idea of Mr. Yoshiaki Fukushima, the owner of the record store. He was an "idea man" and had a hit by selling portable record players and doing tie-ins with musicians popular with the younger crowd. One day, he spotted a young woman wearing a watch with the LEGO logo on it. He purchased a lot of them and started selling them in his shop, where they became an instant hit with students and young people. With his specialty of music, it only seemed natural to combine LEGO in some way. The way? A CD player shaped like LEGO bricks! Being a hands-on type of business person, he flew directly to Denmark and convinced the people there (who thought he was quite a wonder) to grant him a license. His idea became a product.


*From top left going clockwise: The LEGO-themed qmpo CD player, speaker wires and remote control, and booklets. Photos by nyangroove.*

Up until that time, the only LEGO items available were T-shirts and hats with a simple print on them, or watches and stationery goods. Mr. Fukushima not only stylized the CD player like a LEGO brick, but also the speakers, remote control, electric adapter, and packaging as well. All of this was designed by TGB Design, a famous company with experience designing apparel logos as well as mobile phones.

With this, Fukushima went to Harajuku in Tokyo, the center of young fashion and opened an exclusive LEGO shop with an interior rivaling the neighboring high end clothing stores around it. Most people did not understand Mr. Fukishima's way of selling LEGO. After all, Harajuku had some of the highest rents in all of Japan, and there he was setting up a shop to promote and sell an adult-oriented CD player with the logo of a children's toy on it.

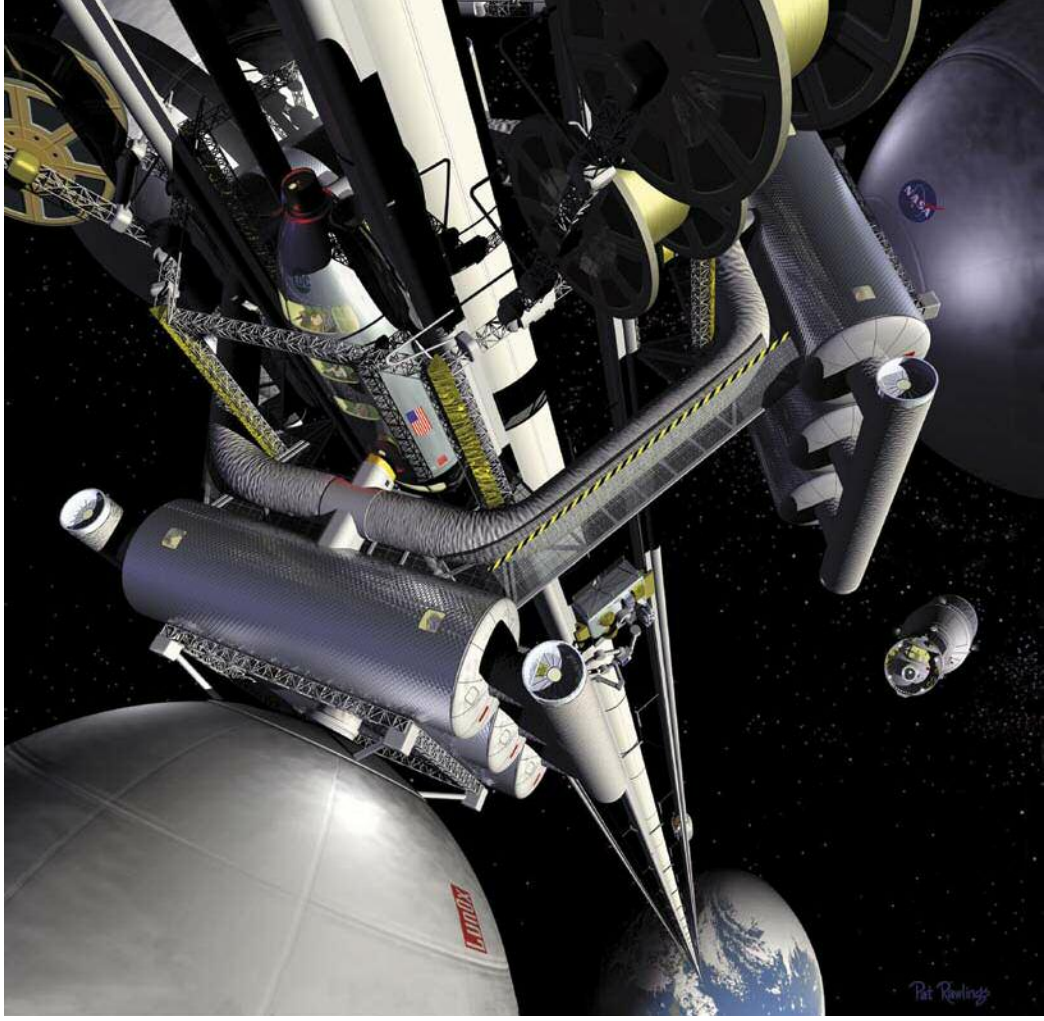
However, the CD player proved to be quite popular. Through word of mouth and the Internet, the talk was of how "kawaii" (cute) the player was and many interviews were done by magazines and television. Magazines focused on young fashion and music really liked it. However, what people worried about came to pass. The CD player, named "qmpo," and having a cute logo that resembled the Duplo logo, was well-received, but it hardly sold. Ironically, this was because of the level of detail Mr. Fukishima had given it, it was very expensive: 38,000 yen, or around $400 USD. Not too long after that, Vacuum Records ran into trouble raising capital and went bankrupt. The remaining LEGO specialty stores in Harajuku and Osaka were renamed "STORES" but they closed soon after.

Vacuum Records started and increased the popularity of the LEGO brand for marketing and promotion. Fukushima showed that "LEGO can be sold as fashion."

As LEGO products began to be seen beyond as just toys, a Sony subsidiary, Sony Creative, started to release LEGO date book organizers and other LEGO-branded goods. In 1999, at the Parco shopping center in Shibuya Tokyo they held an exhibition called "LEGO Maniax." This exhibition showcased the LEGO Star Wars sets that were due to come out the next year. Shinya Fujita, a builder from Hokkaido recreated classic Star Wars scenes in huge dioramas, such as a one-meter-long Imperial Star Destroyer. The venue was aimed at adults, featuring apparel as well as the dioramas. The following year, in Tokyo at the Ometesando Spiral, there was a LEGO and Architecture exhibition and at the same time, a LEGO Deluxe exhibition at the Parco. LEGO and Architecture featured LEGO renditions of the work of architects such as Shunsaku Miyagi, Kengo Kuma and Klein Dytham Architects and was visited almost entirely by adults. As a result, the notion of LEGO being just a toy ended around the end of 2000.

LEGO Star Wars accelerated the trend. The concept of getting a group of people who would not normally purchase LEGO sets to show interest and buy was exactly what LEGO Star Wars started, thanks to the enthusiasm for the sets by young 20-year-olds. The urban youth, open to new things, were the first to show interest. Fashion-conscious graphic designers, web designers, and apparel designers were the first to pick up the X-Wing and TIE-Fighters. It was considered "cool" to have one of these hanging overhead or sitting on top of one's Mac monitor. LEGO had always been the icon of creativity, so adding in the Star Wars element made the brand embody the free spirit of the West Coast.

# A LEGO® Space Elevator? The Sky's the Limit!



*NASA Artist Pat Rawlings' rendition of a space elevator. Art courtesy of NASA.*

*Article by Kenichi Tohya*
*Translation by Nathan Bryan of Brickzen.com*



## Defining a Space Elevator

Connecting an elevator from space to the Earth is an unprecedented idea of transportation. At the equator, satellites at an altitude of about 36,000 km rotate at the same speed as the Earth, so these geostationary satellites remain stationary at a point high in the heavens. Stretching a cable from the ground to one of these satellites could allow an elevator system to be created, which could transport people and goods to and from orbit. How to stretch a cable from one of these geostationary satellites to the ground without having the weight of the cable pull it down still remains a challenge. If possible though, this would make a Space Elevator.

## Building Prototypes

In building a space elevator prototype, rather than cutting aluminum and attaching a motor and driver system, using LEGO bricks, especially Technic pieces, enables one to easily build something one can imagine. By making it into a competition, many people are able to participate, fostering a learning experience for people that might actually create a space elevator in the future. These competitions have been named the "LEGO bricks Activity and Space Elevator Race," or LASER for short.

The aim is for everyday people, from elementary children to adults, to participate and learn the concept of a space elevator by creating their own "climber" (a device to transport people and goods like a space elevator) out of LEGO elements and compete in a race of vertical climbing. Everyone learns the joy of communicating and "making something" along with learning about space elevators through these competitions.