RAILBRICKS™
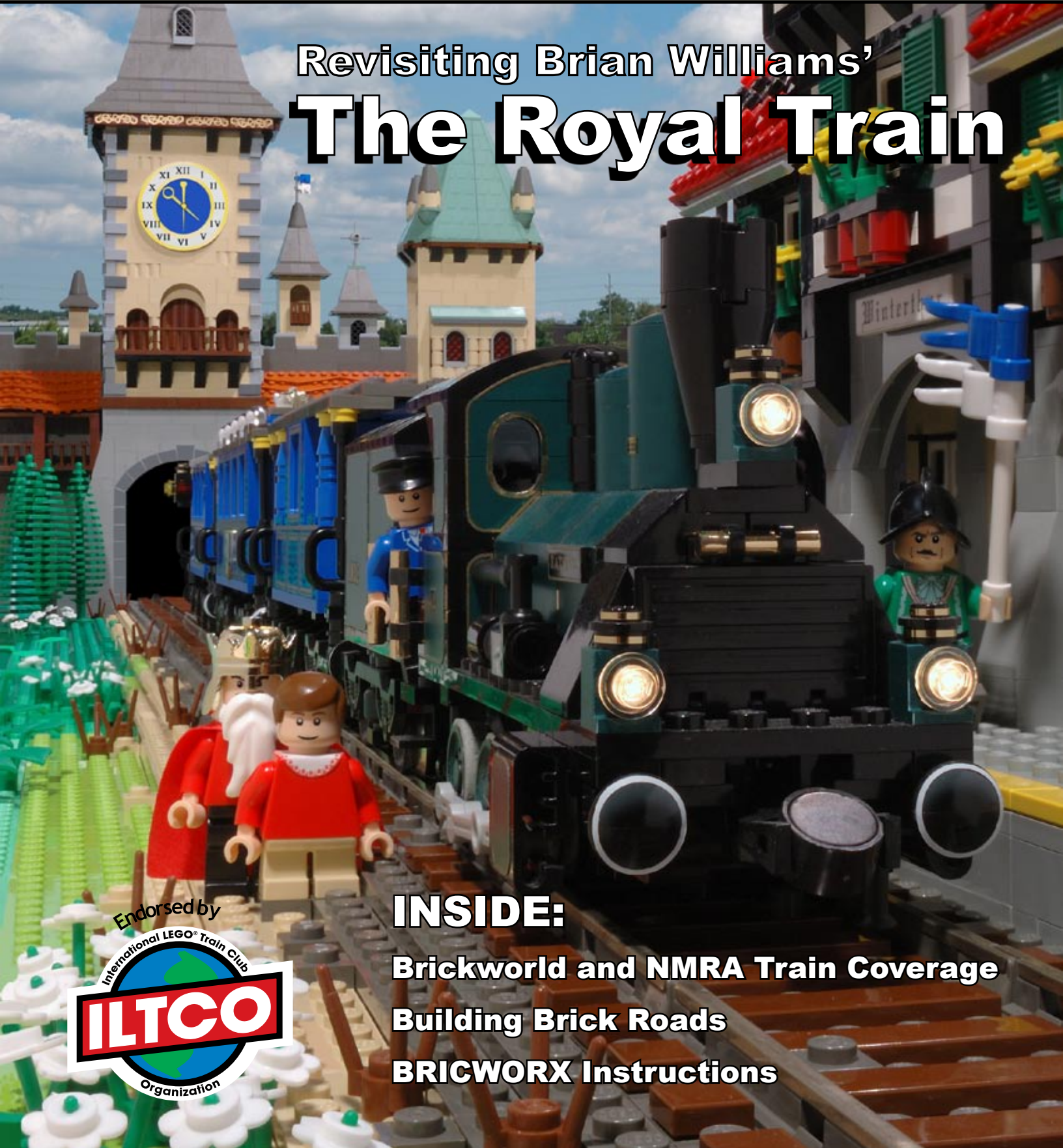
BRICK RAILROADING MAGAZINE

Revisiting Brian Williams'
The Royal Train

INSIDE:

Brickworld and NMRA Train Coverage

Building Brick Roads

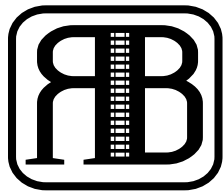BRICWORX Instructions

Coming in September...

The Magazine for LEGO® Enthusiasts!

Issue 3, Volume 2 • Fall 2008

BrickJournal
people · building · community

$8.95 in the US

Events:
Brickworld
FIRST LEGO League
Interviews:
Jørgen Vig Knudstorp
Bryce McGlone

**Instructions
AND MORE!**

BrickJournal, the magazine spotlighting the LEGO hobby, will be releasing its third issue with articles from events such as Brickworld and San Diego Comic-Con, instructions by Christopher Deck and Mariann Asanuma, and a cover model by Bryce McGlone! There's also an interview with Jørgen Vig Knudstorp, the CEO of the LEGO Group as well as a couple of surprises, so pick up an issue!
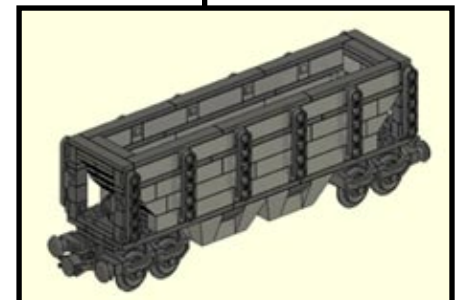
Issue 4 - October 2008

RAILBRICKS

BRICK RAILROADING MAGAZINE

All Aboard!

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Chris Spurgeon

Welcome back.

The last several months I've taken a sort of sabbatical from MOC building, mostly due to the fact that I have been trying to sort through nearly 150 lbs. of LEGO bricks. I've placed a self imposed restraint on building anything until I get completely sorted. Yes, completely. One thing that I've quickly realized through sorting is that you get very intimate with your brick. *Not in that way, geez*. What I mean is that you really get to know what you have and, by sorting, you even discover little surprises and treasures. I found myself churning through possibilities as I found pieces that I never knew I owned and contemplating new ways to use pieces that have been in the LEGO palette for many years. I'm very close to finishing the big sort, then I can start building again. The one project that I am really eager to revisit is the 4-8-4 that I began....*a year ago!* I hope to have it done by next issue, which coincidentally will focus on the Steam Era of trains. Be sure to check out the Steam contest in this issue so that we can show off your entries in RAILBRICKS #5.
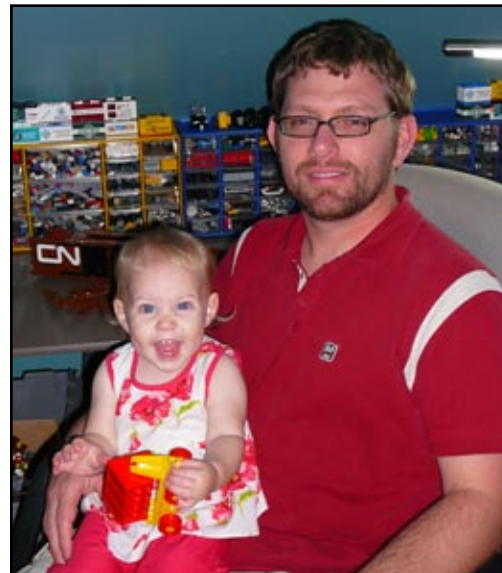
As always, this is a community built around sharing ideas, so if you have an idea for an article, submit it to submissions@RAILBRICKS.com.

If you've enjoyed reading RAILBRICKS, please consider a small donation to help support our efforts. Visit www.railbricks.com and click on the donate button on the left side of the page.

Play Well!

-Jeramy Spurgeon

Printed issues of RAILBRICKS will be available at http://www.lulu.com.
Instructions and Tips & Tricks articles within RAILBRICKS fall into one of three categories and are labeled with the following icons:

B Beginner   **I** Intermediate   **A** Advanced
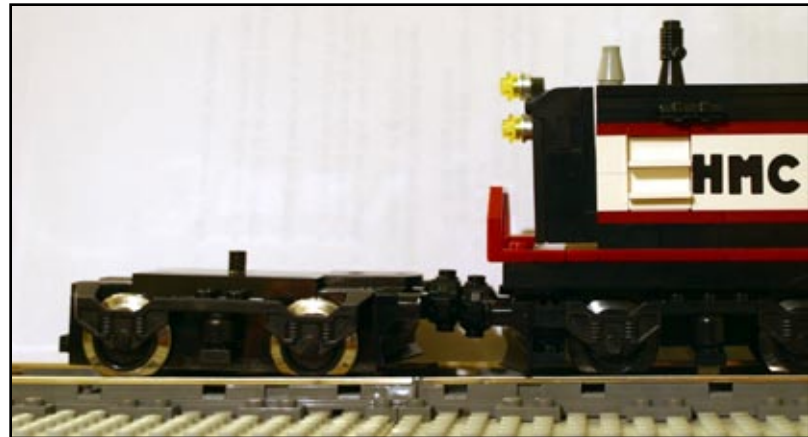
Update: New Train Buffers

by Jordan Schwarz

The new train buffers, featuring fully enclosed magnets, are now available from the LEGO Shop at Home online Pick-a-Brick assortment. RAILBRICKS has compared the performance of these new buffers with the previous generation of magnetic buffers. One of the appealing features of the new magnets is their attraction power. Initial tests showed that the new magnets are much stronger, most likely due to their need to attract *through* plastic.

The new buffer design features studs on the upper and lower faces of the plastic enclosure holding the magnet. This offers at least one significant enhancement over the previous design: a 1x2 tile or plate can be used to connect two buffers together semi-permanently. This permits a very strong connection between the buffers. Builders can now construct long and heavy trains without having to worry about the buffers not holding the train together.

For this application, 1x2 tiles offer better clearance than 1x2 plates. The connection between the buffers will be much stronger if tiles are used to connect the studs on both the upper and lower faces of the magnet enclosures as shown in the photos. In testing, buffers connected this way performed exactly like standard buffers and saw no performance degradation of any kind.

The old magnetic buffers could easily couple to buffers with a 1-plate vertical offset. This becomes less of a possibility for the new design. The new buffer mechanism does permit limited rotation up or down; this allows the buffers to maintain a solid connection even as the train travels over uneven trackage. The limited rotation is not quite enough for a new buffer to couple with another buffer with a 1-plate vertical offset. It can be done, as shown in the picture. However, in this case the magnetic couplers do not contact each other perfectly. As a result, the wheels of the trucks can lift off the rails slightly, increasing the possibility for derailment, especially if the tile connection technique is used to hold the buffers together.

The new buffers should only be coupled to buffers at the same height if possible. When used this way, the performance of the new buffers is entirely satisfactory, and the new buffers do an excellent job coupling to old-style buffers as well.

The studs on the new buffers offer new possibilities for builders to take advantage of. Perhaps a new decoupling mechanism can be designed, or steam line connections between cars could be simulated. If you have a great idea for the new buffers, be sure to write RAILBRICKS and let us know!
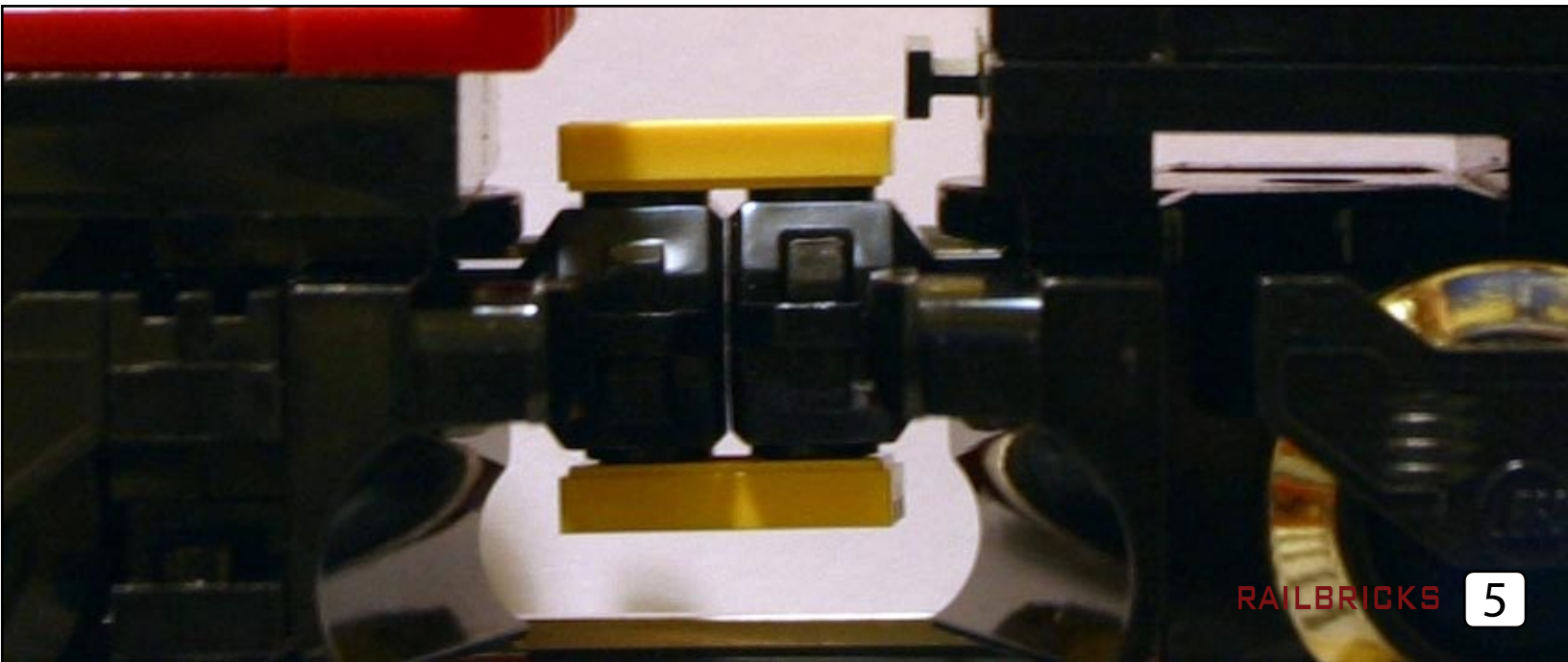
LOUIS BRONNE'S
PRIVATE MINILAND

interview by Didier Enjary

Few LEGO train builders dare to step outside of the traditional scales used in Brick Railroading. RAILBRICKS member, Didier Enjary, caught up with one such builder and finds out that the MOCs Louis Bronne builds could easily fit into one of the LEGOLAND Parks.

RB - Could you first introduce yourself to our readers?

LB - I was born in 1973. That is, before LEGO released any figure. Belgium, where I live, was one of the first countries outside of Denmark to which LEGO sold their product. This allowed me the opportunity of having been given one of the first sets released (Shell station 310) by my uncle.

I've got a professional past studying computer science and am now working for the publications of Natagora, a Belgian nature conservation association, part of the international BirdLife network. I'm more used to asking questions than answering them.

As with a lot of AFOL wife/girlfriend, mine puts reasonable limits to impede our flat from being totally invaded by LEGO. But, I'm don't complain. I've got one room I can use for my passion.

RB - What is your history with LEGO?

LB - The first set I remember having opened is the

Family Set (200). Santa Claus brought it to me when I was 4 or 5. One of the better sets I later received was the Yellow Castle (375). That was the main set I had during my childhood, so that the biggest buildings I made were always yellow. This is still my favorite color for buildings. Apart from castle, Classic Space was also one of my favorite themes. My first "bright age" ended with the first Gray Castles, but those served mainly as a source of inspiration since I only managed to receive little boxes. My "dark age" began at about age 14. It was not a complete dark age, as I kept playing LEGO with my cousins (born between 1979 and 1985) and kept on collecting the catalogues from toy shops. During my university studies my real "dark age" began: I did not even collect the catalogues. Then came my girlfriend. Some months after knowing each other, she bought us a box of red bricks (634)… to make me a LEGO heart. I then again started collecting the catalogues and looking at the sets in the shops… but nothing more, I didn't like the new sets much. In August 2006, I saw an interview on French television of an AFOL who showed his two Yellow Castles (you may know who he is). That was the little thing that threw me back in the LEGO world again. I bought Set 200 on eBay (I gave away all my Maxifigs when I was about 12) and started to get familiar to second-hand markets. I've spent a lot of time looking for old parts and sets from before 1985. A year later, I became a member of FreeLUG, but I must confess I still had not really found my place in the group. This was probably due to geographical reasons but also because it seemed that I was the only one not interested in Star Wars or Life on Mars sets.

RB - What style of building are you into? From your BrickShelf gallery, I see it's a quite unusual scale and style.

LB - To be honest, I've spent a lot of time collecting and little time building – that should change! So at the moment, my BrickShelf gallery shows you the only real building I made as an AFOL.

RB - So you build at "Maxifig" scale. What is this scale? 1:42? Miniland scale? Technic fig scale?

LB - My favorite people are the Maxifig, the ones from the series "Building sets with people". To me, they are the only ones that fully integrate the LEGO principle of free imagination. With Minifigs, you cannot build fat people, tall people, children, pregnant women, or muscled guys. My favorite scale is then the one for these figures, that is 1 stud=16 cm (1:20).

RB - And you build only with the parts available during the "Maxifig" era. When was that?

LB - The Maxifig era began in 1974. I first thought it ended with the sets 230, 231 and 232 in 1981, as they do in my European catalogues. My station and train are then built only with parts that were on the market during that time.

RB - Is this limitation a difficult one to build with? What are the difficulties you encounter in building with such a limited variety of parts? Do you ever feel frustrated at not being able to use modern parts?

LB - There is a French novel called "La Disparition" that does not contain a single **e**, the most common letter in the French language. That proves that anything is possible when you really want it. Constraints are the key to imagination – major inventions were made by people with a need. I must confess that I don't feel that it is a real constraint building only with parts from that time frame as I've barely built with any of the newer parts (only with parts from 1982 to 1987). I'm quite proud to say that in my station there are parts from nearly all the series LEGO produced until 1981: Technic, Fabuland, Duplo (the half round part at the upper part of the station) and even Scala (the newspaper). The only frustrations come when one common part cannot be used because the color wasn't available at that time.

Recently I've discovered that the North American sets kept the Maxifig alive till 1983. That's a good thing for me as this last frustration will nearly completely disappear and now allow me to use a lot of Fabuland tools. These tools are exactly at the right scale for the Maxifigs.

RB - Could you tell us about your real train inspiration - and what about your models? Are they inspired from real engines/cars/station?

LB - I'm not a toy train fan, but train is my favorite transportation method. My wagon was conceived while I was on the train without anything to read and with a major desire in mind to build with LEGO. I began to examine the entire wagon and take a lot of notes. I then built it.

When it came up to building the locomotive, I looked on the website www.belrail.be to find a machine that could be translated to LEGO. I found the "Series 28" engine.

My friends immediately saw where I took the inspiration for my station (the local station near to my parents' home).

Unfortunately I haven't found how the uniform of the SNCB/NMBS (Belgium national railway company) was at that time, because the scene is also one that could have been observed in real life in 1981!

Lastly, I must add that I'm recording a little movie: "L'arrivée d'un train en gare" – a good title for a first movie, isn't it? You'll find a link to it on my BrickShelf page. 🅱
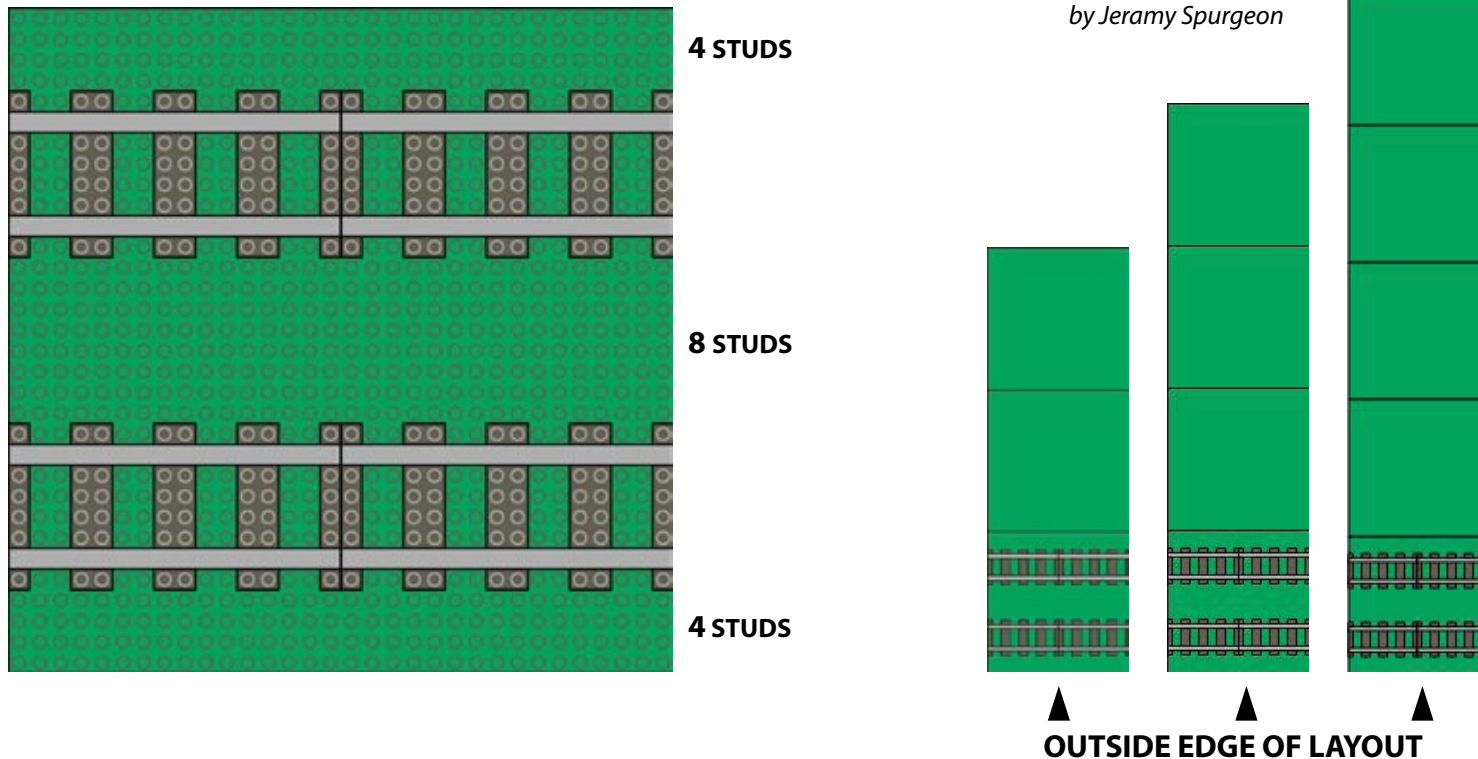
Louis' BrickShelf page:
http://www.brickshelf.com/cgi-bin/gallery.cgi?m=hobby
To contact Louis:
hobby.lego(at)gmail.com

GET CONNECTED!

Basic standards for inter-club connectivity

by Jeramy Spurgeon

4 STUDS

8 STUDS

4 STUDS

OUTSIDE EDGE OF LAYOUT

While multi-club connectivity is not as prevalent when doing collaborative efforts as it used to be, there are still advantages to exhibiting this way. First of all, it allows smaller clubs to evenly participate along side the larger clubs. It also allows event coordinators to conserve precious space allotments. The largest advantage, however, is the fact that by connecting many clubs into a single layout, the crowd perception is dramatically altered. Now, instead of smaller, scattered individual layouts, the public is met with one immense, awe inspiring display. A prime example of this was the 2005 ILTCO NMRA National Train Show layout.

So, what are the crucial components to inter-club connectivity? In one word: **communication**. While there are a few connection standards that club may follow, communication exchanges are vital to a successful layout.

A few simple standards can be followed to aid in the connections. The first involves track placement. For many years, the accepted standard has been two main loops running on the outer edge of the display. The illustration on the upper left shows the main line placement. Typically, the outermost line is placed four studs from the edge of the layout and the inner loop is placed at 16 studs. This allows unmodified switches to easily be integrated. For most layouts, the two main outer main lines may be enough, but for some enthusiastic connections, two sets of mainlines could be used, both on the outer and inner edges of the display, as shown above. Another factor to consider is track clearance, so talk to your neighbors!

Although table top areas tend to be different from club to club, most accept a standard height of 30 inches (~76cm). Again, communication is important since each club may use different ballast standards (or use no ballast at all). Clubs using ballast may affect their total height by one plate or even two bricks.

Connecting roads may be more difficult than track, so the suggestion may be to not attempt road connections. As you will read later in this issue, roads can vary greatly from club to club. RB

GÜTERBAHNHOF

© The LEGO Group

165 Cargo Station

by Jordan Schwarz

Last issue's Flashback focused on one of the most famous LEGO locomotives from the early 1980s 12V system. This issue, we take a look at a set from an even earlier era, the 165 Cargo Station. Released in 1978, the Cargo Station was one of the first buildings available for LEGO trains, at a time when trains ran on blue tracks and bricks in the color gray were fairly novel – and perhaps even controversial. In all, four different train-themed buildings were issued, beginning with a train station in 1975 and followed by a level crossing and fuel refinery in 1976.

The Cargo Station appears somewhat simplistic by modern standards, comprised mostly of basic brick and with only a few details. By the standards of 1978, however, it was a capable – and even ground breaking – set. In the world of LEGO trains, this set came at the transition from the 1970s "LEGOLAND" sets to the classic Town sets of the 1980s. The Cargo Station was the first train-related building to include modern minifigures as opposed to their predecessor, the "armless" figures. The Cargo Station also set the stage for things to come by using a standard 32 x 32 stud baseplate,

the first train building to make use of the now-ubiquitous baseplate standard.

The Cargo Station was also significant in being the first in a series of cargo loading stations for LEGO trains. Each subsequent generation of LEGO trains has featured a set of similar design. In 1986, the 7823 Container Loading Crane was released for 12V trains, followed in 1995 by the 4555 Freight Loading Station. The latter set in particular appears to be a direct descendant of the 165 Cargo Station, updated for the aesthetic standards of System-era sets. Both 7823 and 4555 included a freight wagon and container truck; these were omitted from the 165 Cargo Station. The late 1990s saw the trend toward juniorization take grasp in the LEGO System offerings. Two other freight station sets were released during this era: the 4557 Freight Loading Station in 1999 and the 4514 Cargo Crane in 2003. These sets were smaller in scale and included a truck but no rail car.

Returning to the 165 Cargo Station, it is worth noting that the crane in this set was designed to lift crates, not the larger intermodal shipping containers that would appear in later sets. It is also interesting that the small crates found in the Cargo Station from thirty years ago are not unlike the crates now appearing in several sets from the 2008 lineup!

The mechanism for grasping the crates – by wedging a plate between the studs on top of each crate – would not be permitted in a modern LEGO-issued set. This technique, which appeared in a number of earlier LEGO sets, was found to weaken or warp bricks over time and has earned a place on the list of "illegal" building techniques.

For a set that appears quite simple, the Cargo Station encompasses a good degree of play value. It features a traveling crane with a functioning winch. The freight station has two bays for cargo and plenty of crates. The crane straddles two train tracks, a feature unique to this crane set, making it possible to transfer cargo from one train to another or to the warehouse. Or, with one set of tracks removed and replaced by a driveway, the crane could be used to transfer goods from truck to train and vice versa.

It is straightforward to build a replica of the Cargo Station, but it would be difficult to construct an exact replica given what parts are available in the modern era. Despite the use of mostly basic bricks in the design, a number of elements are no longer made, such as the rooftop antenna and the large 2 x 6 x 3 window featured on the control tower of the station. Several other elements are much rarer now than in the 1970s, in particular the white hinged doors on the freight station and the wheels used on the crane. The set included a decal sheet with decals for the crates and the sign atop the station that read "Goods Station". The decal sheet included this text in eight different languages!

The 165 Cargo Station marked the end of one era and the beginning of another. It was the first LEGO train building to exhibit System-style design, and it was an indication of things to come in the era of gray-railed 12V trains. It was also the first of several cargo stations for LEGO trains. Historically, each generation of trains has featured a cargo station of some sort. Currently, there are no structures for the RC line of trains, and the line from LEGO City has plenty of vehicles but is conspicuously short on cargo buildings. Perhaps this oversight will be corrected when the Power Functions trains are issued; only time will tell! 📖

I

Reverse **E**ngineering **C**hallenge 4

by Benn Coifman
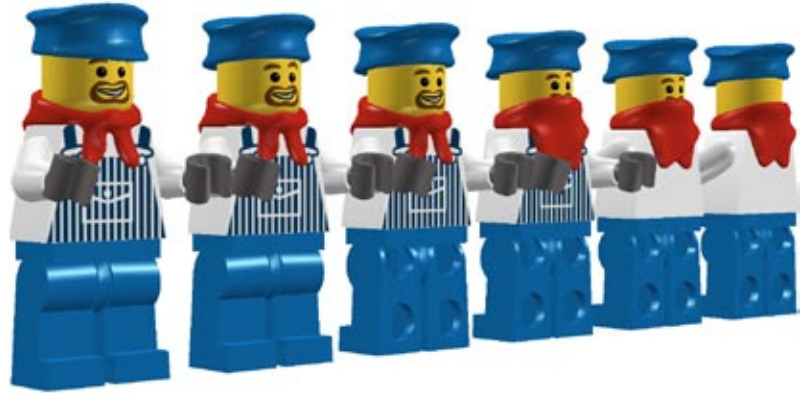
This column seeks to challenge readers to look around at other builders' work and tease out how they achieved a specific effect, an important skill as you wander off the instruction sheet and into your own creations. Like last issue's challenge, this challenge centers on windows at the *end* of the train. This time we consider the bay windows on a caboose.

If the design worked, it appears simple at first glance. But look again, just how are those windows held in? And all of this in orange.

all of the buildable submissions that achieve this effect and winner will receive a "RAILBRICKS Challenge" engraved brick. We'll publish the solution in the next issue.

All submissions become the property of RAILBRICKS and by submitting an entry you will allow us to print your submission in whole or in part.

If you have ideas or suggestions for future challenges, contact us at submissions@RAILBRICKS.com

Submit your solution to challenge@RAILBRICKS.com with the title REVERSE ENGINEERING CHALLENGE 4 in either LDRAW format or provide sufficient digital photos on how to construct the car by December 31st, 2008.

If you build a physical model, you can use more common colors. Be sure to include your name and contact information.

The editorial staff will select the best design from

Reverse Engineering Challenge 3 REVEAL

Once more we had several great entries and it was difficult to choose the winner. For this challenge the engraved brick goes to Manne Granberg, with a strong honorary mention to Alban "Banban" Nanty. Congratulations Manne and Banban! This reveal pulls together ideas from my original design and these two submissions.

Note how the two halves of the door inter-mesh as you slip them together. While the door construction is minimalist, often pieces are held together with only one stud, it has proven to be quite sturdy due to the surrounding frame of the car. Manne introduced the idea of using a clip with light to hold the two halves of the door together, the original design does not use this trick, but it is a great idea, adds stability, and for the really determined, also provides a means to pin the door to the rest of the car. Above the door there is a subtle problem between the two jumper plates. The hole needs to be filled by a 1x plate or tile, but an upright plate will conflict with the 1x4 tile above. This reveal shows my cavity and upside-down tile + plate solution. Manne used a second clip with light to pin the top of the door halves together and hold a right-side-up 1x2 tile in the same spot. Moving back down to the bottom of the door, I originally used 1x1 bricks pushing against the outer walls to hold the door halves in place (similar to the REC from issue 1). This lateral support is redundant and Banban used the much flatter panels to provide the necessary longitudinal support to hold the door halves in. 🆁🅱
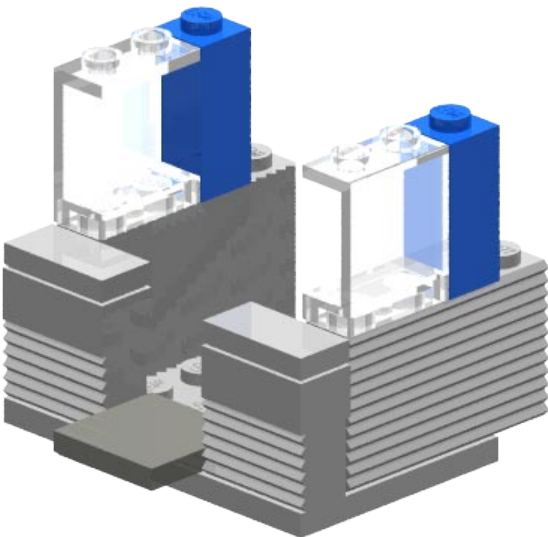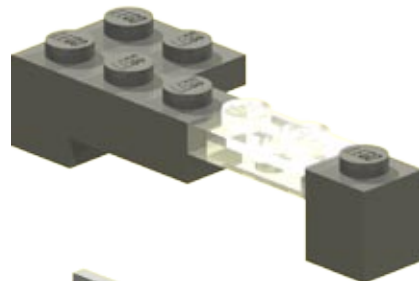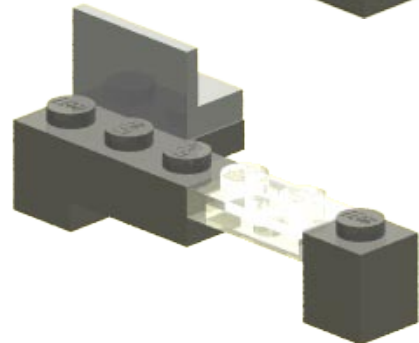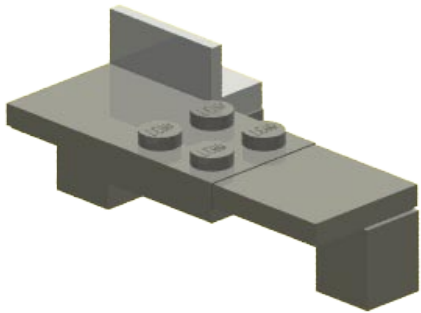
REVEAL INSTRUCTIONS

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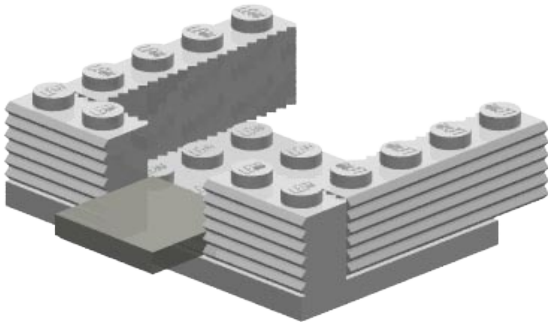
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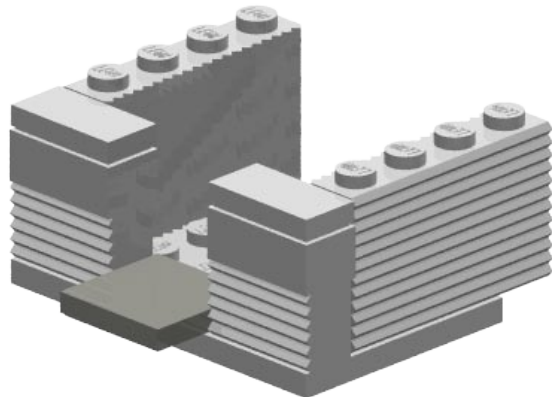
3

4a

4b

4c

4d

5

6a

6b

6c

6d

7

8

9

B
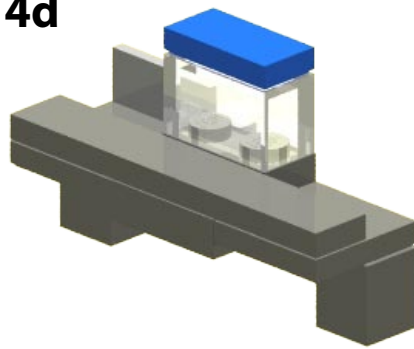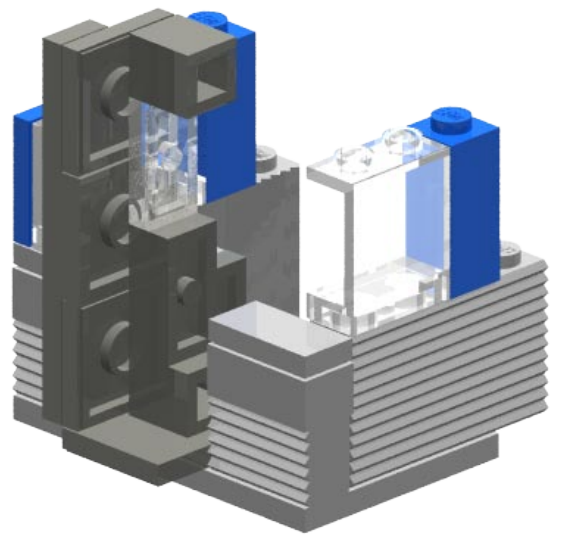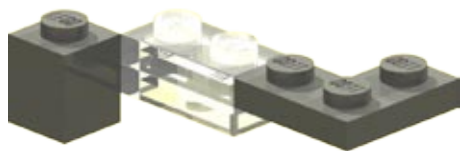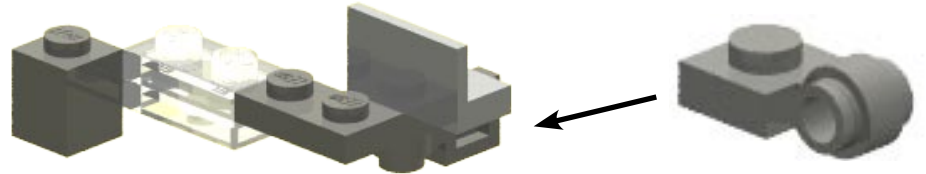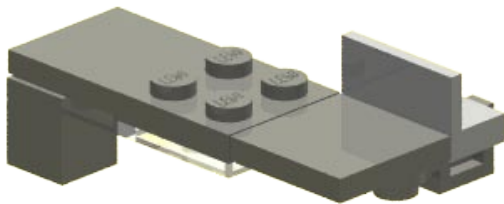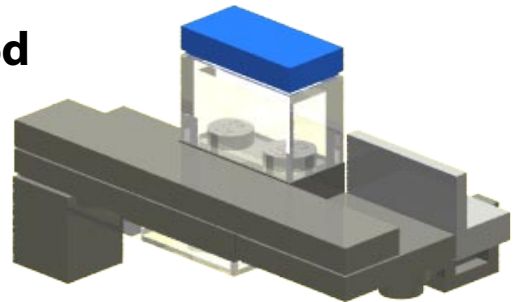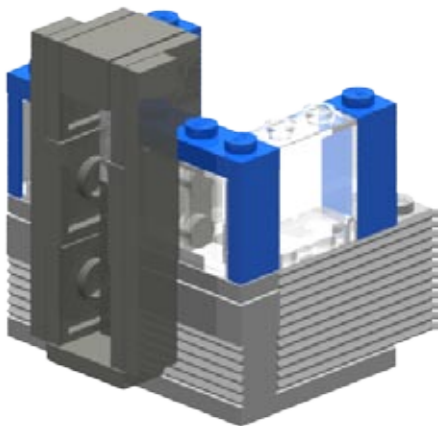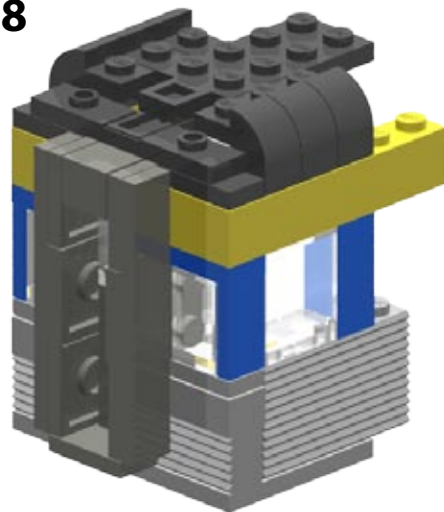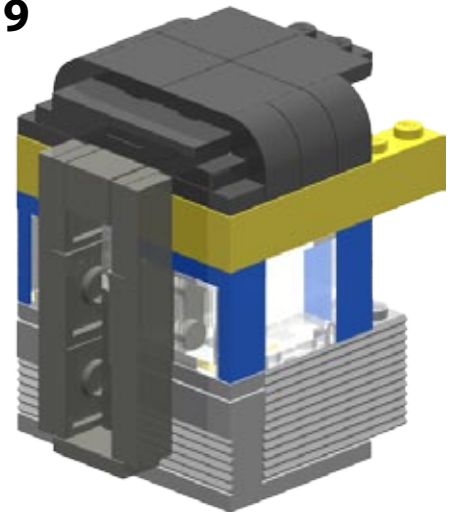
Seams, Not What They Seem

by Steve Barile

In traditional art we sometimes see one thing and not another until we look a second or third time. Even when these details are not directly noticed, they still add a certain depth that is recognized by the sub conscious. LEGO MOCs can also contain this level of detail and it is time to reexamine our usual methods of placing elements.

The choice of properly using brick seams is starting to become more pervasive in MOCs. In contrast, we were taught by experience, and demonstrated in the early LEGO pamphlets, to cross the seams on successive layers to create strong interlocking walls. This makes total sense from a mechanical point of view. However, as AFOLs aspire to use LEGO as a medium of expression, it implies creative thinking and the occasional throwing out old rules in favor of new aesthetics. An example is the stacking of 1x2 bricks. When stacked in a brick pattern, crossing seams on successive layers, we get a beautiful brick wall which implies brick and mortar. When placing columns of vertically stacked elements adjacent to one another; parallel seams, it appears to look more like panels of sheet material such as sheet-metal, plywood, and so on. The seams of the bricks can actually change the appearance of a MOC. This technique is particularly useful in train car designs, where in real life, you would never see a brick and mortar pattern.

Perhaps the worst offender of poor seam placement is SNOT. There is a certain novelty to the various SNOT techniques and when used appropriately it vastly increases the flexibility and resolution, but this is not without sacrifice. What's gained in geometry might be lost in aesthetics, specifically all the brick seams going every which way. Another aesthetic loss is seen when using tiles with grooves, which can adversely cause unwanted seams. This is not to say that SNOT isn't an important technique in the artist's bag of tricks, but an appropriate balance should be struck.

Sometimes parallel seams require extra interior reinforcements or a slight sacrifice of structural integrity. One possible exception to the parallel seams rule is a plate stripe. This can offer reinforcement with out jeopardizing the parallel seams look. It is also worth noting that typically no special pieces or added expenses are incurred to achieve this effect.

Two pictures of a very simple baggage car demonstrates the difference between "brick and mortar" [1] and "parallel seams" [2] techniques. Although this might be a subtle difference it's this kind of subtlety that makes a great MOC fantastic. RB

[1] The Brick and Mortar Technique

[2] The Parallel Seams Technique

Brickworld
TRAINS

Participating Train Clubs

Chicago Area Brick Railroaders - CABR
Greater Midwest LEGO Train Club - GMLTC
Indiana LEGO Users Group - IndyLUG
Northern Illinois LEGO Train Club - NILTC
Michiana LEGO Train Club - MichianaLTC
Michigan LEGO Train Club - MichLTC
Town of Tupelo LEGO Users Group - ToTLUG
Twin cities LEGO Train Club - TCLTC

Participating Individual Layouts

Justin Carmien
Tom Paul
Chris Pitt

BEST TRAIN
Norfolk & Western by Cale Liephart
(above)

HONORABLE MENTIONS
Hershey Trolley by Matthew Hocker
(not shown)
Union Pacific GE by Scott Wardlaw
(page 18 - top)
Dunn & Duffy Flying Circus by Brian Williams
(page 19 - top)

BEST CLUB LAYOUT
Northern Illinois LEGO Train Club (NILTC)

HONORABLE MENTIONS
Indiana LEGO Users Group (IndyLUG)
Greater Midwest LEGO Train Club (GMLTC)

NORFOLK AND WESTERN

NMRA National Train Show
Anaheim, California

by Steve Barile -- photos by Joe Meno

ILTCO train clubs brought yet another awesome train layout to the NMRA's (National Model Railroaders Association) National Train Show on July 18-20, 2008 at the Anaheim Convention Center in Los Angeles, California. This year was the first time the traveling convention was on the west coast since ILTCO started attending the show. As a result - due to the greater distances between cities - the number of clubs providing the joint layout was four; Southern Pacific LEGO Train Club (LTC), Bay (San Francisco) LTC, Puget Sound (Seattle) LTC, and the Southern California LTC. In addition, a contingent from the east coast consisting of members from North Georgia LTC, North Carolina LTC, and Greater Florida LTC came out and brought a small Disneyland display! I was visiting from Portland, OR and we had a guest from Minneapolis! In all there were some 50+ LEGO AFOLs present.

The layout measured 65' x 70' (~20 x 21m). There were 16 train loops, several train yards, and 6 bridges 5'(1.5m) or longer. Again this year we had special 1x8 bricks commemorating the event engraved by Brick Engraver (Tommy Armstrong) for the attendees. This year we used LEGO silver bricks with blue ink! The show attendance was 28,000; that's 20 per minute! The running joke was to catch each other as seriously as possible and comment… "I didn't know LEGO made trains!", which, of course, is always the most heard comment!

The entire layout was fantastic. The sheer logistics to get a layout of this magnitude setup is staggering. The amount of cooperation, especially in an all volunteer organization, is mind blowing. That's just par for the course in the LEGO community! If only our world worked like this! There were plenty of notable things to see so visit www.brickshelf.com and www.flickr.com and search for "NMRA 2008".

As in years past we had plenty of social time after hours. We had a pizza party hosted by Steve Witt (our favorite AFOL Ambassador from LEGO) at BJ's Brew Pub with great "door" prizes. The second night we had wonderful party at the Michon's house that was open to all the AFOLs. Special thanks to the Michon's for opening their house to us and for giving up tickets to the Red Sox vs. Angels game! In fact, the party was planned the day before only after some teasing about how, "The host club always opens their house for a party night!" This actually happened at our first ILTCO @ NMRA show in Cincinnati '05 which was hosted by Billy and Kirsten Lynch. This time it was a complete joke, however the Michon's reaction was nothing short of graciousness and the party was on! Finally the next night about 30 of us converged on an old ILTCO favorite (Detroit '07), Buca di Beppo, a family style Italian Restaurant. I think that they may have regretted having us; mayhem ensued as it does with that many LEGO train heads in one room!

The Royal Train

▲ **7**: Railfans watch as the Royal Train's locomotive "Kathryn" steams up

Interview by Jeramy Spurgeon

If you are old enough to remember Rec.Toys.LEGO then you might recall seeing a website about the Royal Train : a LEGO model railroad from the late 1990s. This layout was popular for its detailed buildings, steam era German rolling stock, and combining LEGO models with real-world backgrounds. Jeramy Spurgeon caught up with its creator, Brian Williams (BMW), to reminisce about this early example of LEGO model railroading which inspired many LEGO train fans …

RB - Tell us a little bit about yourself and how you got into the LEGO hobby.

BMW – As a boy I enjoyed many of the original Town and Castle sets. I remember falling in love with LEGO 12v trains when I saw them at a special Christmas promotion the LEGO company displayed at Marshall Fields Chicago store in 1978. The LEGO rep said that the new trains would be available (domestically) the next year. So I waited, and waited, and waited … but the trains didn't arrive. By 1981 was in high-school, put away my LEGO, and subsequently went into mili-

tary miniatures and scale model trains. These are both great hobbies which give one an eye for detail and develop skills in composition, scenery, color theory, dioramas … all which I later applied to brick railroading too. Fast forward to 1994 when I stumbled onto a #4563 'Load n' Haul' on clearance at Wall-mart and was hooked again. A short time later I was building the LEGO train layout I dreamed of as a boy… but with the resources and skills available to me as an adult. This eventually became the Royal Train (Photo 1).

▲ **1**: The Royal Train Layout at its last exhibition in 2000

RB - The Royal Train was one of the elements that got me back into the LEGO hobby as an adult. The layout has a certain German flavor to it. What inspired that?

BMW – I've always been fascinated by Victorian trains … both American and German. The Royal Train was actually an extension of the Era I German modeling that I was doing in Z-gauge at the time. One of the classic trains from that period is the royal train of King Ludwig II with its deep blue and gold filigree so I modeled that and other period rolling stock. Eventually I developed this extensive backstory for a Provincial Era I railroad set in the fictitious little kingdom of "Williamsburg" between Germany and Switzerland. This provided the Bavarian setting, and allowed me to incorporate part of the city of Winterthur, Switzerland where I have family. Much of the atmosphere was inspired by a trip I made to Lucerne, Switzerland a few years before where I was impressed by the medieval architecture and pageantry on the feast of Corpus Christi.

**RB** – The layout itself looks like a big castle. How did that come about?

BMW – There wasn't a lot of space in my condo back then so I went with a circular shelf railroad only 7.5 feet long by 5.5 feet wide. Each shelf was only 17 inches deep so I relied on forced perspective and backdrops to make the scenes appear deeper. What it lacked in size I was determined to make up for in detail. An acrylic case was added to keep out unwanted hands at shows and dust, which also let buildings' interiors be exposed against the plexiglass. The inside of the layout ring was hidden by a short wall built up over the backs of the modules. This was covered with foam "bricks" and painted to resemble a castle rampart with cardboard turrets in the corners and a large wooden clock tower on one side (photo 2). This gave the Royal Train a strong visual presence that was popular at shows and told crowds what to expect inside.

▲ **2**: Building the Royal Train Layout

RB – How did you control trains in a plastic case?

BMW – The panels were hinged for quick access. But most operation was with the case closed via two control panels, made of LEGO, on opposite sides of the layout which controlled the mainline, sidings, lighting, turnouts, and mechanicals (photos 3, 4). These were removable for maintenance and made possible by building the track 12 bricks above the tables which
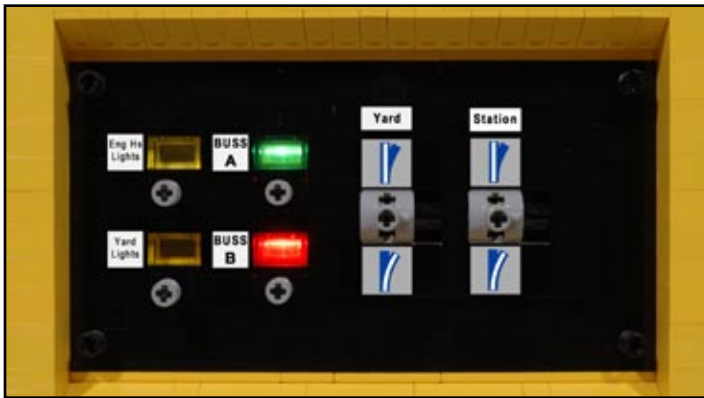
▲ **3:** Removable Control Panel showing on/off "stop" and momentary switches

▲ **4:** Inside of Control Panel

provided ample space to run wires and controls. Electrical controls consisted of momentary switches for turnouts made from 9V switches with rubber bands, and old 4.5V switches for on/off control of track blocks and lights. The later became known as "stop" switches because they pulled in/out like an organ stop. Technic is another great advantage LEGO presents over scale railroading and was used to automate a lot of things. Thin brass rods with clips attached under the engine house doors which enabled them to operate by turning wheels on the control panel. Likewise, the turntable and turnouts were controlled manually through gear-trains as well because I learned its actually more fun to operate the yard stuff by hand than electrical control. There was even a hidden uncoupler which had two arms that rose up between the ties and pushed cars apart. Power was supplied from standard TechII model railroad power packs which allowed more precise voltage regulation and train speed control. Track mods included two custom cut 9v turnouts, two block controls, and six isolated sidings.

RB - Describe the different sections of the Royal Train Layout. Unlike many LEGO train layouts, it seemed to

align more with the Scale Model Railroaders in that it had a 'purpose', i.e., trains moving cars between two points for a reason.

BMW - Well, railroads are really about moving stuff. So I kept two trains running at all times: one passenger and one freight. Legend has it that the King built the railroad to enable the people of this mountainous kingdom to travel to the annual Royal Festival so that is shown. Freight cars contain the kingdom's major commodities: baked goods and root beer (a non-alcoholic alternative so the kids can still enjoy long strings of beer-cars). With limited space, there was just enough space for a single mainline loop and three major scenes (see Layout Overview - page 32). The largest scene was the Winterthur city and passenger station which featured a passing siding. (photo 6) Steam locomotives are just plain fascinating so a second scene was devoted to the engine house with turntable (photo 7). The focus was on realistic steam operation so at shows I would regularly stop trains at the station, uncouple a locomotive and run it back to the engine house, and then bring out a new locomotive fresh from the ready track. The other major scene was the festival scene complete with Oktoberfest and

9: The Royal Train

▲ **6:** Downtown Winterthur and Station

the ¼ scale castle in the distance (photo 8: spread pages 30-31). A short spur to the Monk's Brewery was planned but never built. During show operation I would often demonstrate the trains for crowds and point out details: why a steam locomotive has two domes… what the puffers are for… why the engine stalls have pits. My favorite was opening the doors on freight cars and having the children identify the cargo inside. They would see boxes of root beer in one and eggs and milk in the other (thanks to old Scala tiles). Then I would explain how the perishable items needed to be kept cold and how they could tell the difference between a reefer and a boxcar.

RB - Your models are fantastic and presented a realistic touch that I had not seen previously in the Adult LEGO Community at the time. How were the trains built?

BMW – The Royal Train proper is based on the real royal train of King Ludwig II of Bavaria with its deep blue and gold filigree (photo 9). The King's car is adorned by a modded LEGO crown atop per the prototype (it's good to be the king). By today's standards the coaches are fairly basic construction although the shifting center axel on the three axel coaches was innovative at the time. The locomotive "Kathryn", named for my wife, is loosely based on an actual German class BVI locomotive that pulled the Ludwig train. Railfans familiar with the prototype may point-out that my model lacks an outside frame and sports a peat tender used in northern Germany, not the Alps. The truth is that I just wasn't up to building an outside frame locomotive at the time, and peat tenders are cool. But Kathryn more than makes up for these short comings with lamps carefully wired into her three headlight bricks, firebox, and rear marker lamp. In fact, the coaches
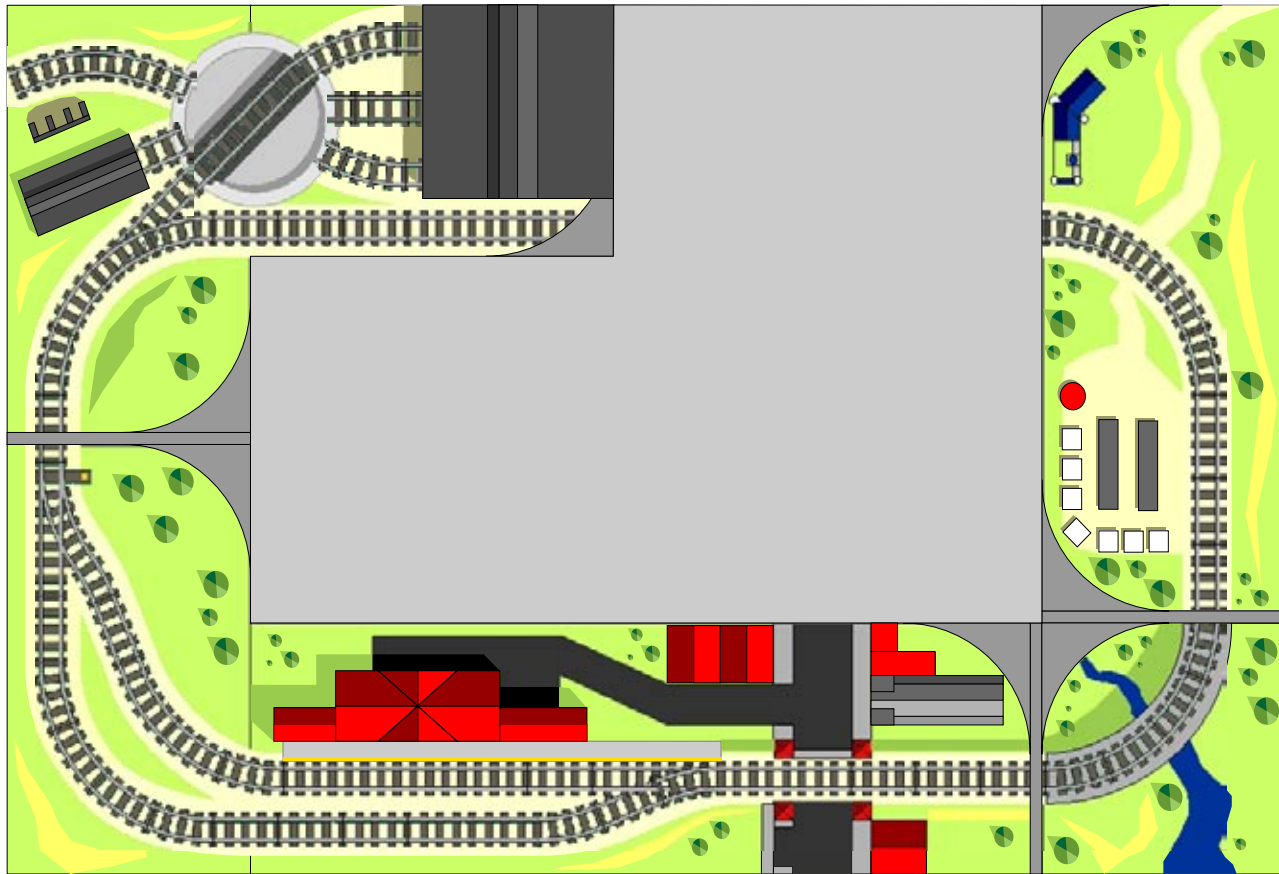
Photo 7

Engine Yard

Photo 8

Festival

Forest

City of Winterthur

Photo 6

are lit, too, through small connectors between the cars and tender. The locomotive is driven by an old 12v train motor with the bronze contacts taped back. Power is supplied from a 9v motor in the tender with the electric motor removed so that it rolls freely. I miss the old 12v train motors: they are unmatched for slow, smooth, quite train operation. Two other steamers were built following this same basic design. The early 1900s time frame permitted early traction locomotives too. So I wired up dozens of lattice masts and strung up Maerklin HO scale catenary sections between them. And then built a small switcher with an HO scale pantograph on the roof to pull power from the overhead wires (photo 10). The system allowed the switch engine to operate independently of the mainline train around the Winterthur station on the same track. The freight cars were mostly modeled after standard G10 boxcar and reefer prototypes (photo

11). All the locomotives and rolling stock are short by design to reduce friction on corners and keep in scale with the small layout and tight LEGO curves.

RB - What are some of the techniques that you used to get the look and colors for your models? The dark green color on the Kathryn wasn't available from LEGO back then.

BMW – To start, I chose prototypes with striking paint schemes which are colorful but balanced. Then I tried to keep the bright colors in the trains and foreground MOCs but make the background structures neutral and darker colors. But back then the LEGO palette was still quite limited. And I am not one to paint. Stickers are, however, fair game because they can be removed. The dark green panels on the Kathryn locomotive, which appear turquoise in some photos, are

▲ **10:** Electric Locomotive with Working Catenary

balance, color, etc.. In fact, most of the pictures were carefully framed in-camera first and then the minifigs placed and adjusted while looking through the view-finder to ensure just the right orientation. Because the scenes were only 17" deep, set extensions were often built just for a picture to increase the apparent depth. This was the motivation that led to replacing the backgrounds with actual photographs too (photo 14). The original Royal Train pictures were all captured using the very first megapixel camera on the market so the resolution, image noise, and exposure were all problems. I spent countless hours retouching in Photoshop.

just contact paper used to line kitchen drawers. Each panel was cut to shape and stripped with gold stickers trimmed from R/C car sticker sheets. So one doesn't need an ALPS printer to get creative with stickers. But I did have an ALPS printer … so I also made custom stickers for the number boards, rivets, and even spokes on the wheels! (photo 12) Every car featured a unique equipment number.

RB - Your pictures of the Layout almost make the minifigs appear alive and actually moving. Is there anything special that you did to achieve this look?

BMW – A great strength of LEGO modeling, which differentiates it from scale modeling, is the ease with which figures can be incorporated into scenes. So a LEGO model railroad is more than just a collection of trains, buildings and scenery. It's really a collection of scenes showing how people use and interact with all the above. And that's how I chose to photograph the layout: the pictures focusing on an action or event with the trains in a supporting role (photo 13). Graphic arts principles apply as well with regards to composition,

▲ **12:** Custom Lettering for Freight Cars

▼ **11:** Freight Cars

RB - Is the Royal Train still around? Will it make a comeback?

BMW - The Royal Train operated from 1996 through 2000. In 2001 I helped form the Northern Illinois Train Club so the Royal Train got packed away to make space for Chicago commuter trains for the club layout. The Royal Train layout is still in storage. But a few of the trains and buildings appeared last Christmas as a community window display at LEGO stores. It was a lot of fun revisiting prior work and gave me a chance to upgrade parts like the curved roofs and convert to light flesh minifigs. It also allowed me to shoot a few new pictures just for this article including the cover. As for bringing back the Royal Train… well, I would certainly like to one day if only I can find the time. So much to build, so little time.

RB - You are currently a member of NITLC (Northern Illinois LEGO Train Club). How has being in a club reflected on your hobby?

BMW - A club means a much larger exhibit which provides a bigger show draw. That means inspiring more kids and families so a club presents a distinct advantage over a solo layout. Its also a place to learn new techniques and get motivated. We are quite fortunate in the NILTC to have a critical mass of several top notch builders and we do 8-9 shows annually. Frankly, if I didn't have the frequent show deadlines looming I wouldn't get nearly as much built. These

guys also have a great sense of humor which inspires creativity too.

RB - Who are some of your favorite builders in the Adult Community?

BMW – Wow, that's a tough question because there are so many great builders out there. I was impressed by Ross Neal's work early on when he was just 10. He has a knack for details which goes far beyond his excellent steamers. Matt Delanoy, a fellow NILTC member, builds Star Wars but I have found his techniques a source of great inspiration. More recently Cale Leiphart has put together some really sharp equipment which has all the right proportions, colors, and detail that a scale modeler could expect from a brick model. And then on the other side of the pond there several mini-diorama builders on Eurobricks and E-Klocki who SNOT some amazing details. Everything Adam "Misterzumbi" Grabowski builds is amazing so I guess that's why LEGO hired him.

RB - What are you currently working on?

BMW – Last summer I began building Indiana Jones Brick Adventures – a 130"x90" layout featuring 54 scenes from the Indiana Jones movies and TV series. I'm a huge Indy fan and when I heard that LEGO was going to license Indy I committed to build a layout celebrating all the vintage trains in the Indy Universe. There's the Circus train, the mine car chase, and sev-

▼ **14:** An Express Passenger Train Steams Through the Alpine Valley

▲ **13:** A Quartet Entertains Waiting Passengers

eral trains from the TV series including the Phantom Train of Doom. Its been a real hit with the public so far, taking awards this Summer for Best Individual Layout at Brickworld, and Best UCS Vehicle in the E-Klocki Indiana Jones Contest. 🆁🅱

EDITORS NOTE – Be sure to read the next issue of RAILBRICKS for an article on Brian's Indiana Jones Circus Train. To see additional photos of the Royal Train, and the Brian's other MOCs, please visit - **http://www.flickr.com/photos/brian_williams/sets/72157606884038651/**

B BricWorX Instructions

text by Steve Barile

GONDOLA

by Steve Barile

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2

3

1

2

3

4

5

2x

4

5

HOPPER
by Dwayne Towell

1

6x

2

3

4

2x

5

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12x

7

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12x

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14

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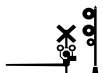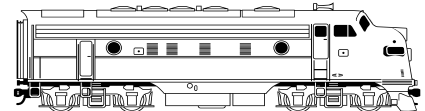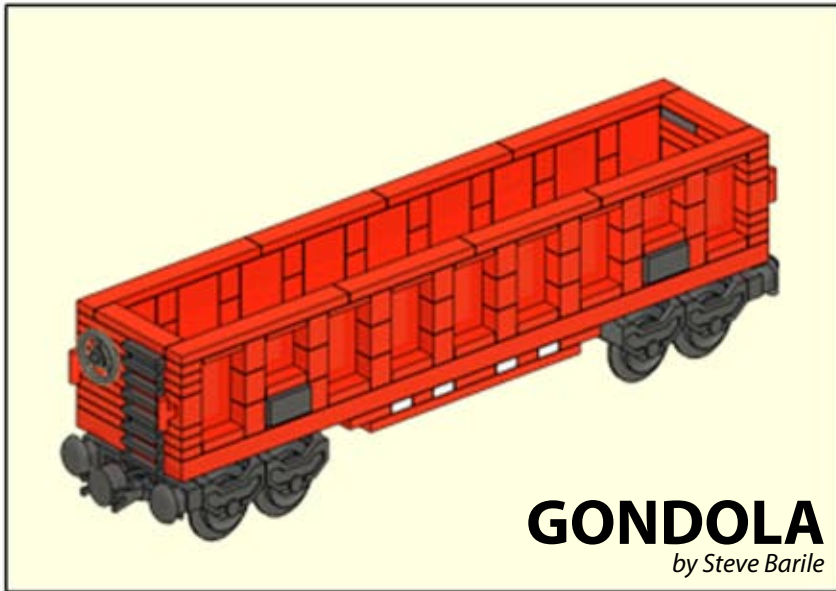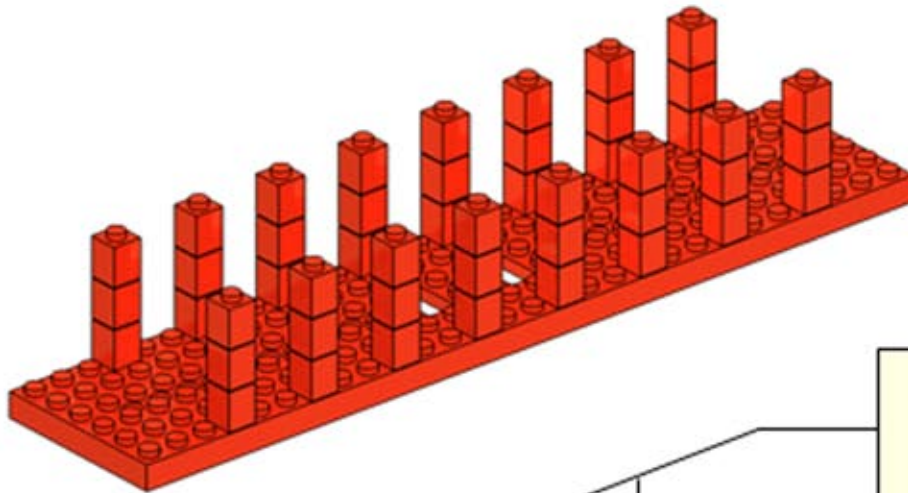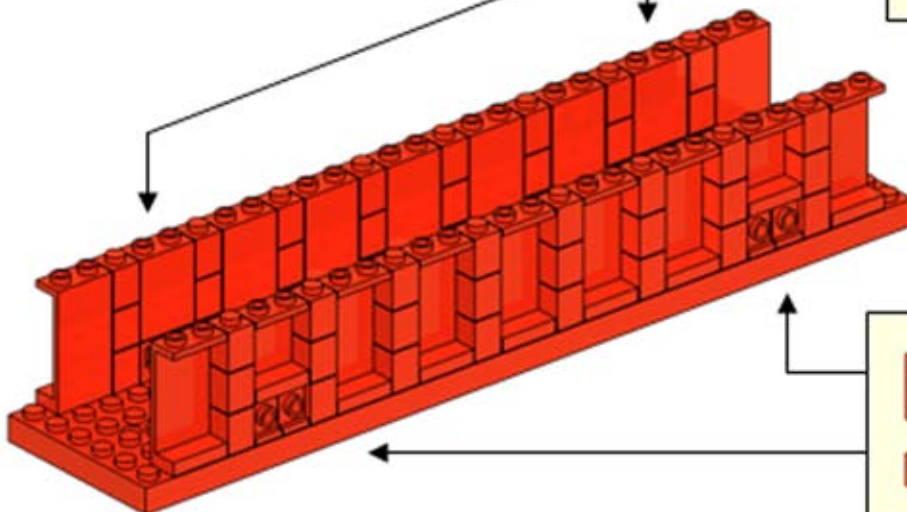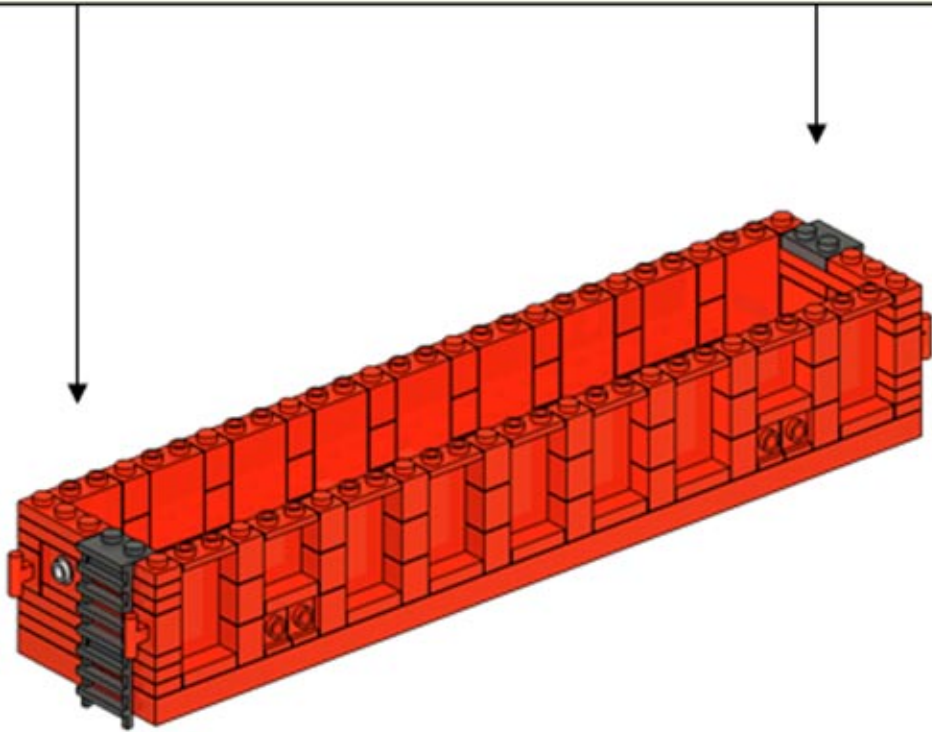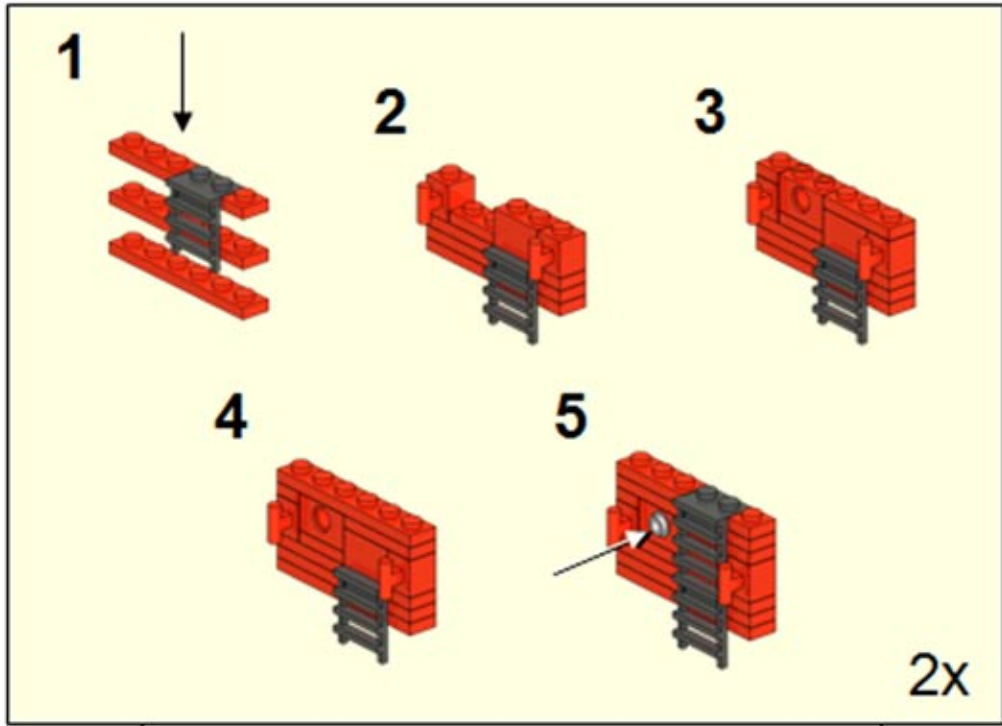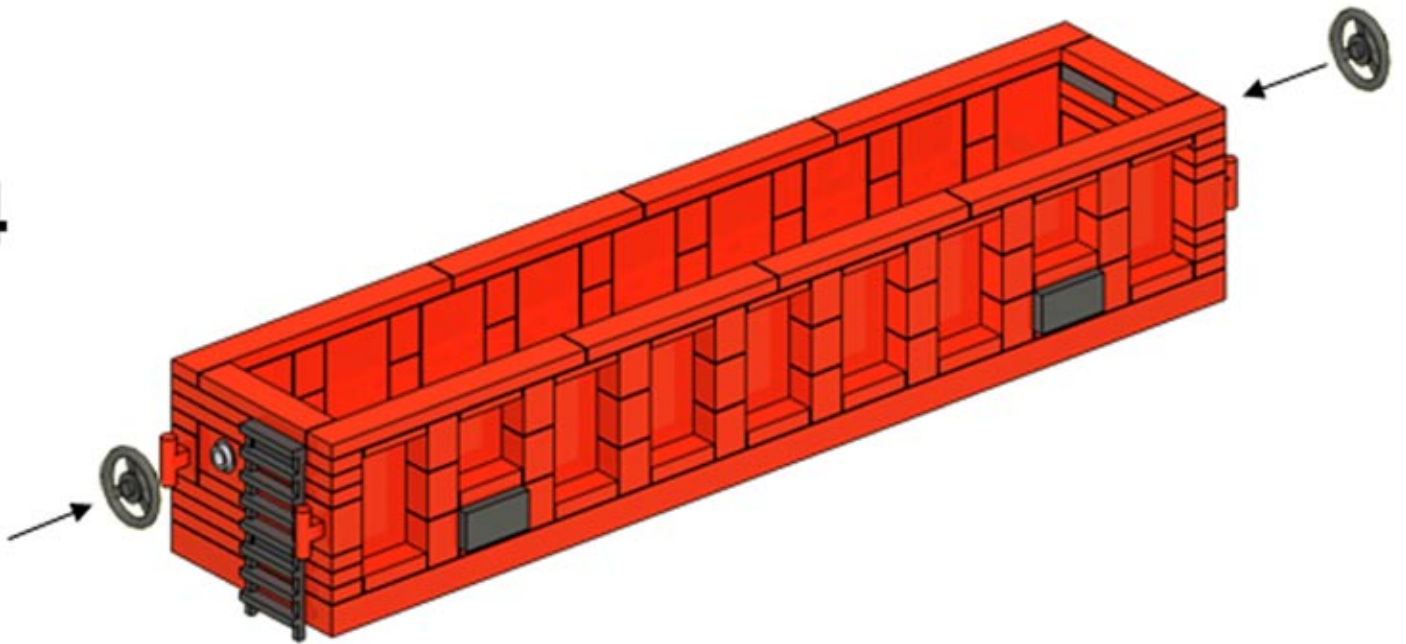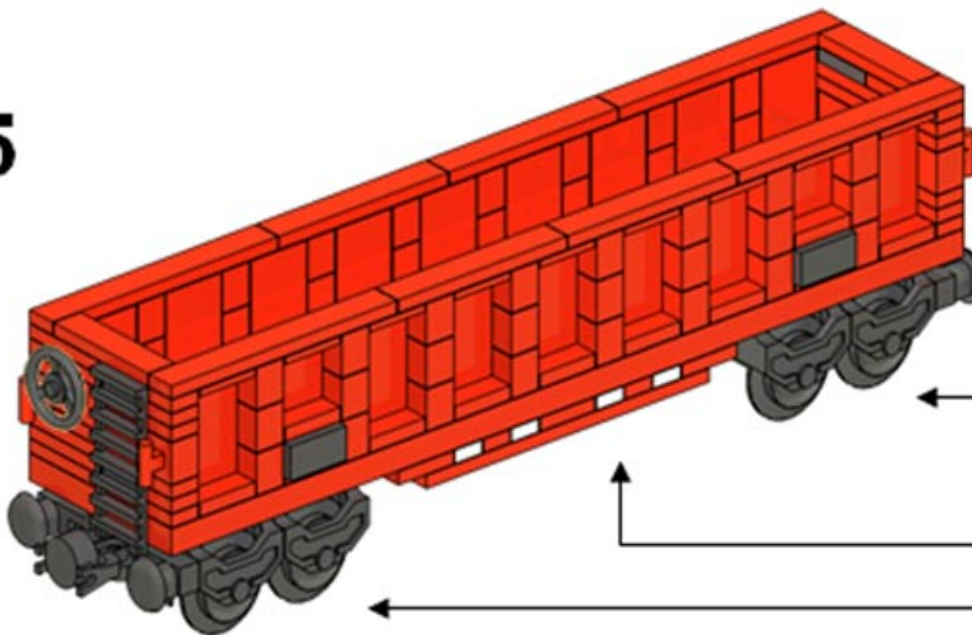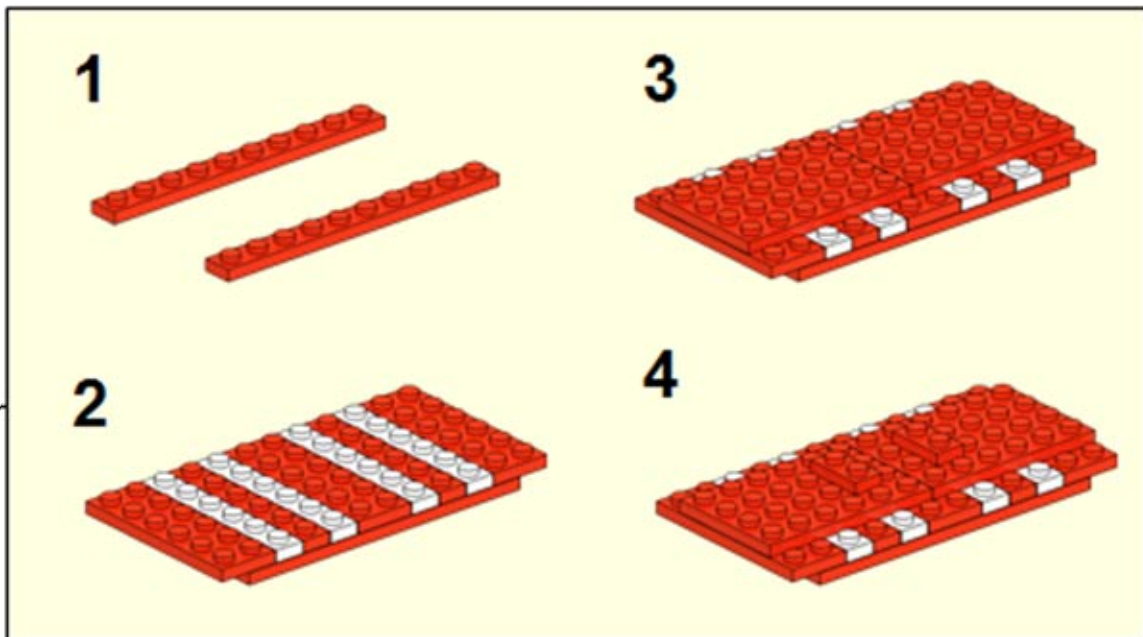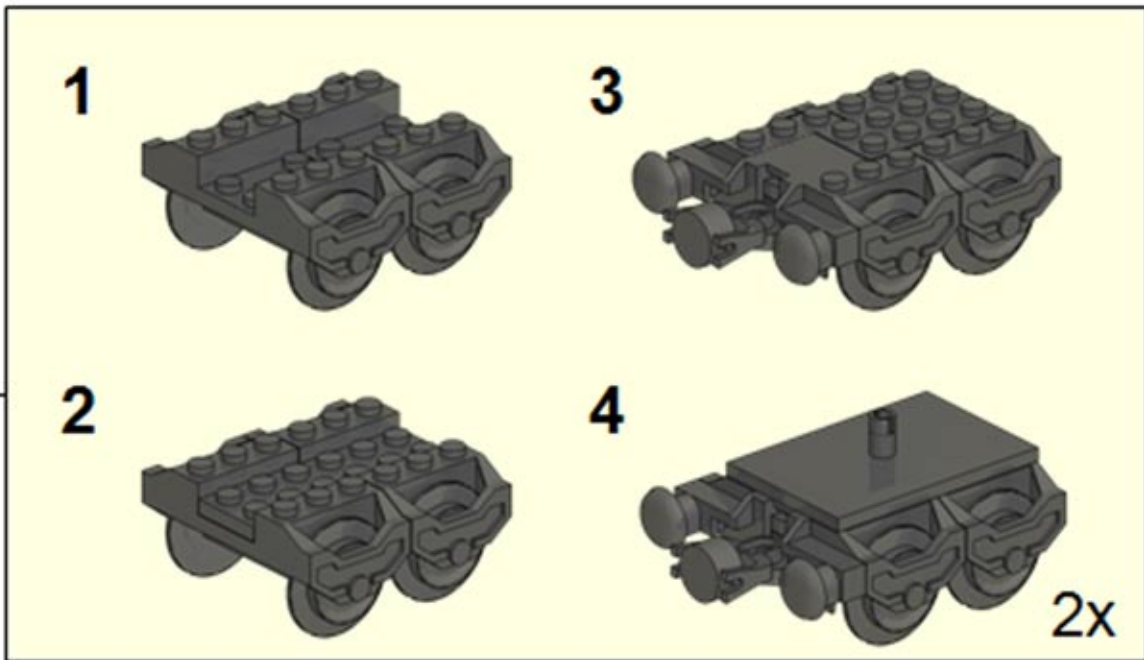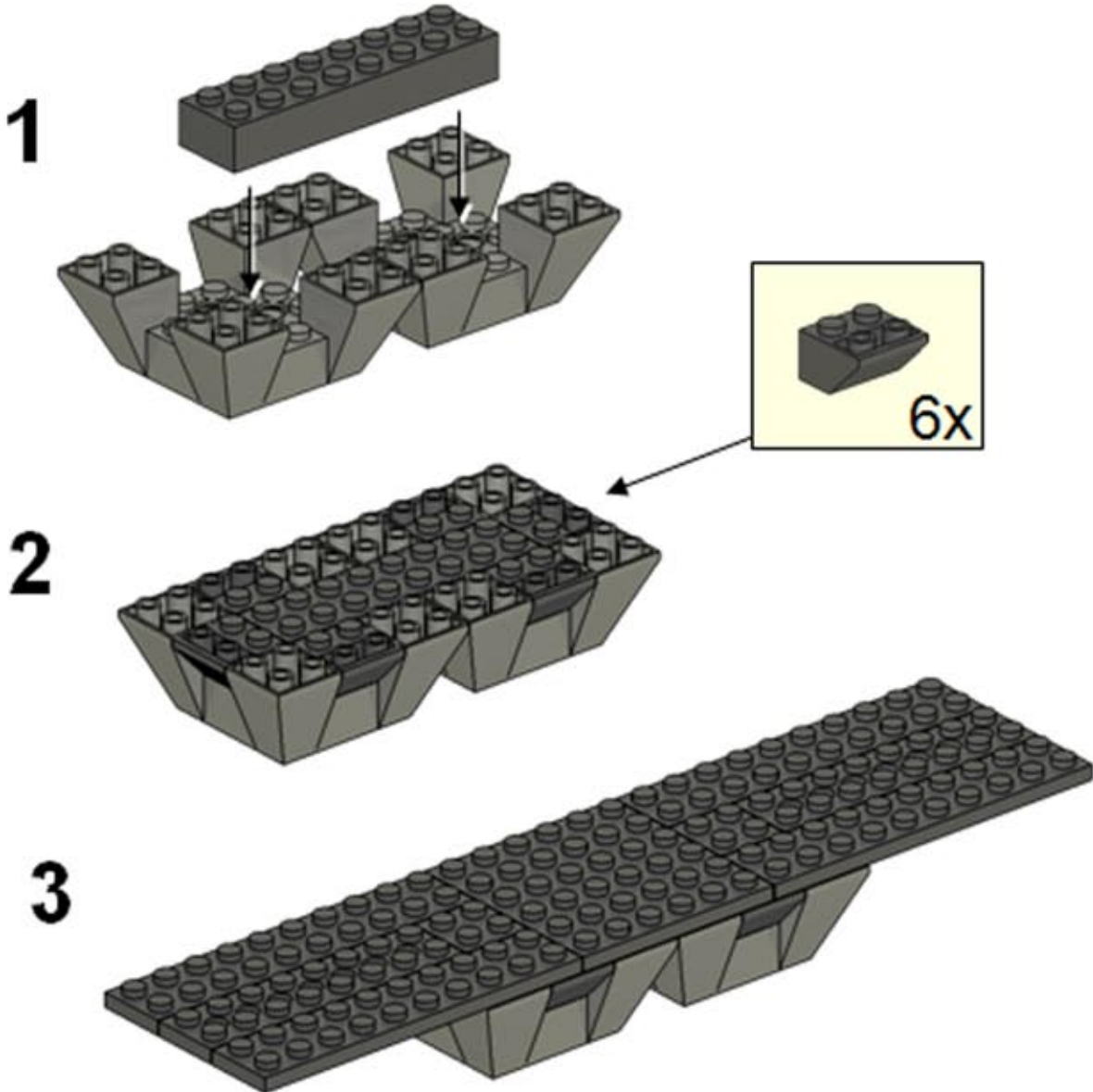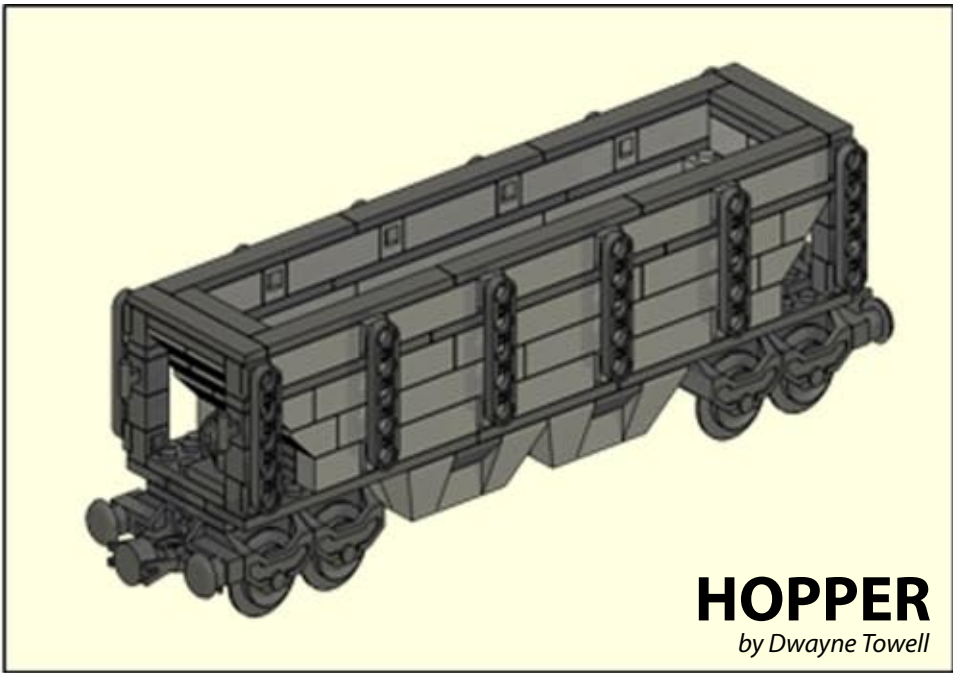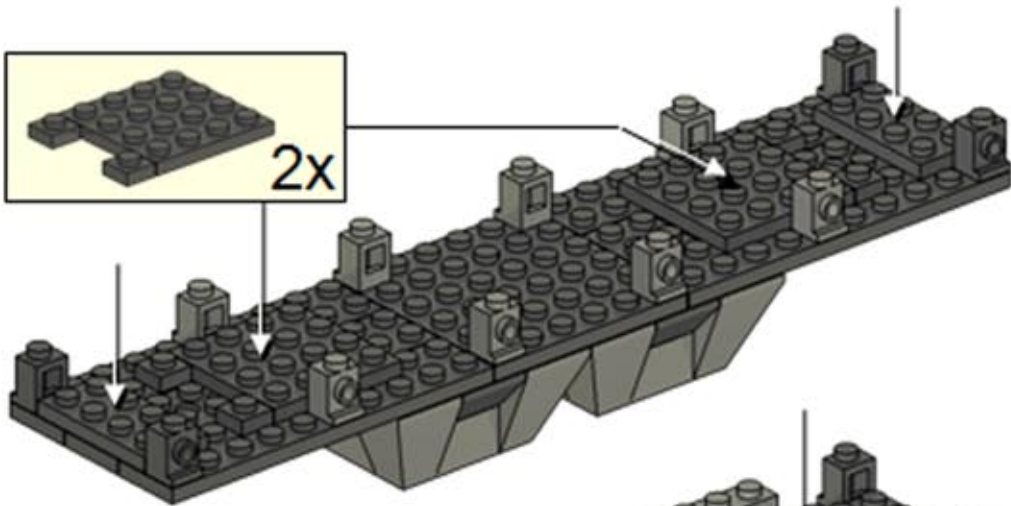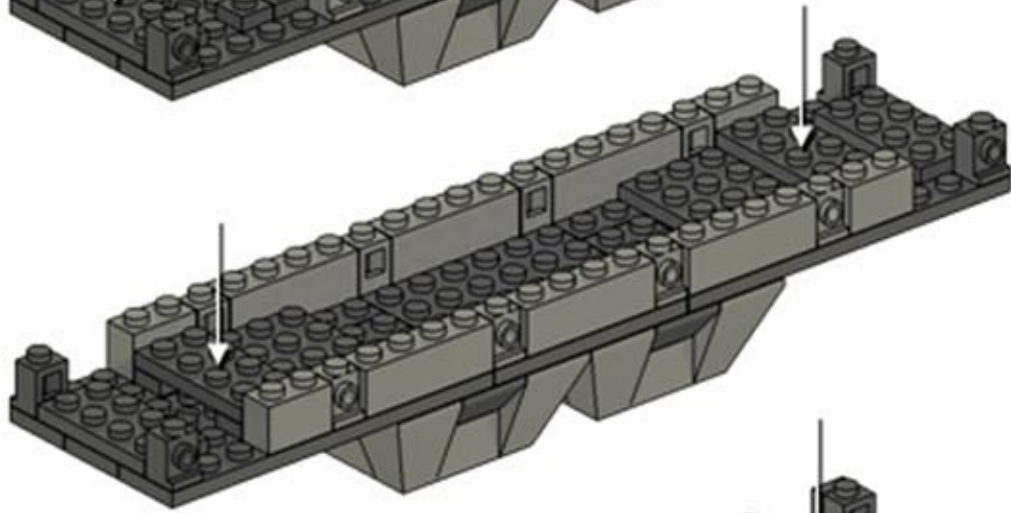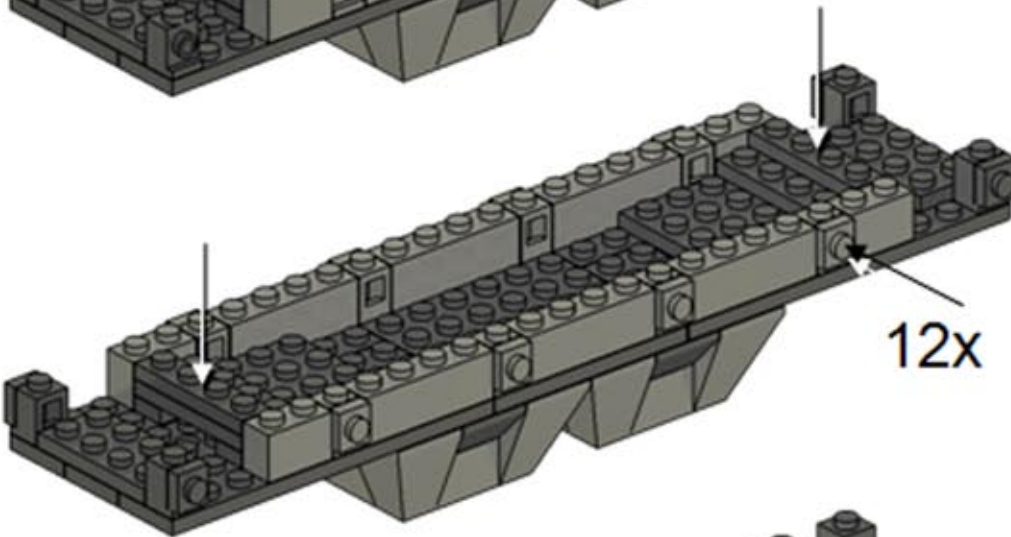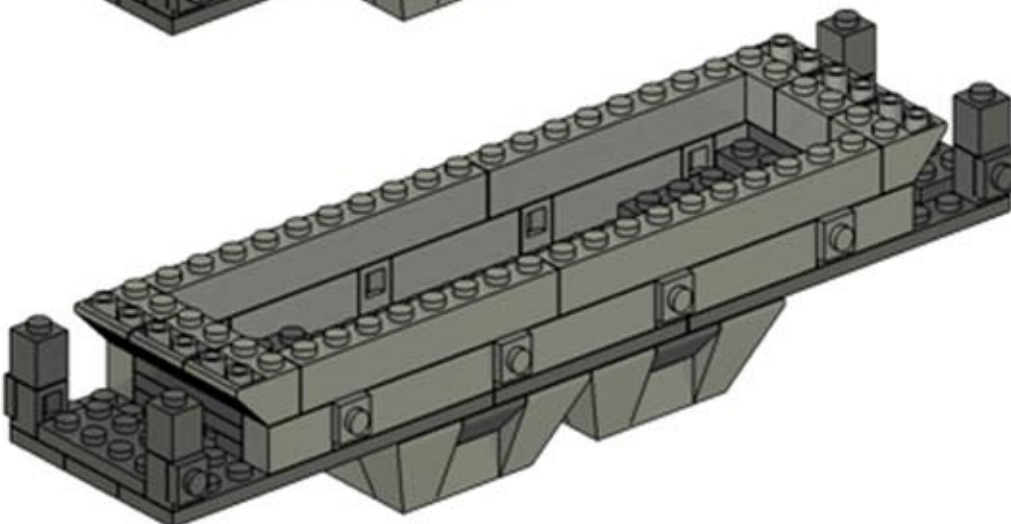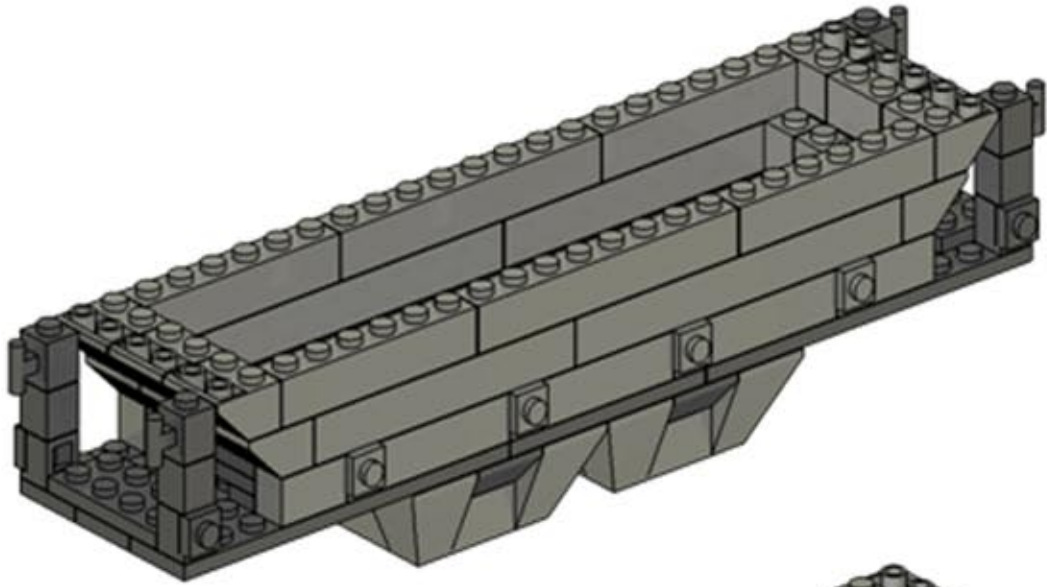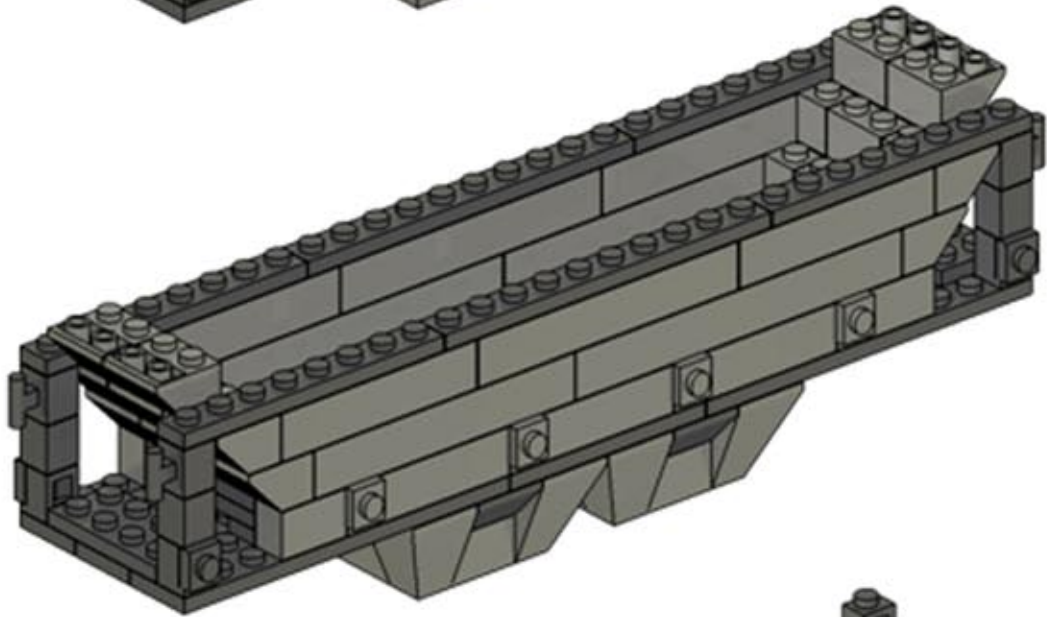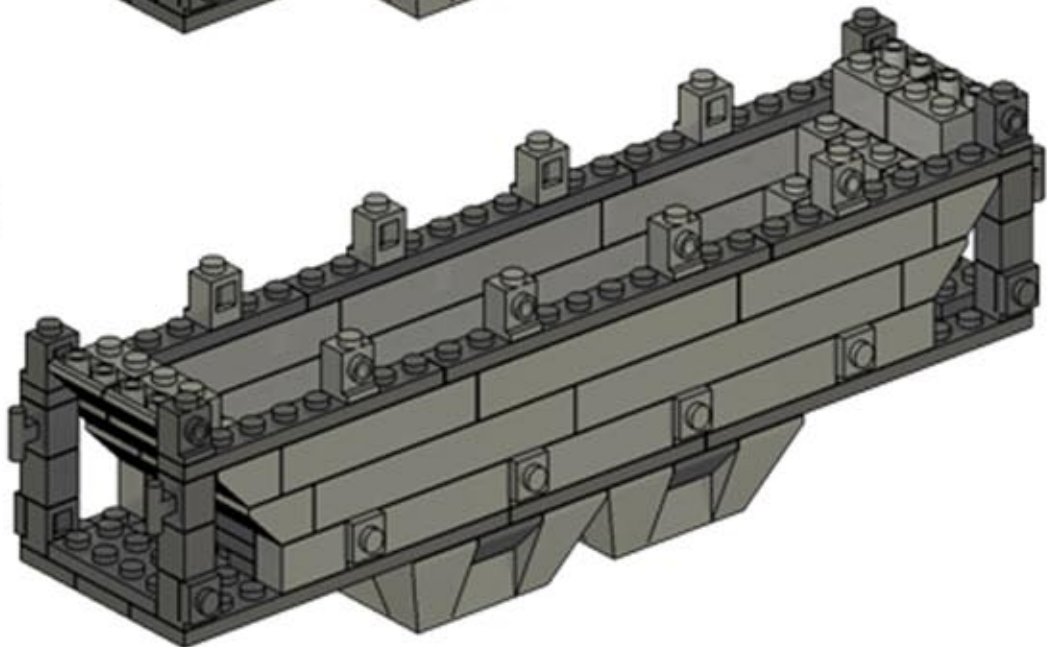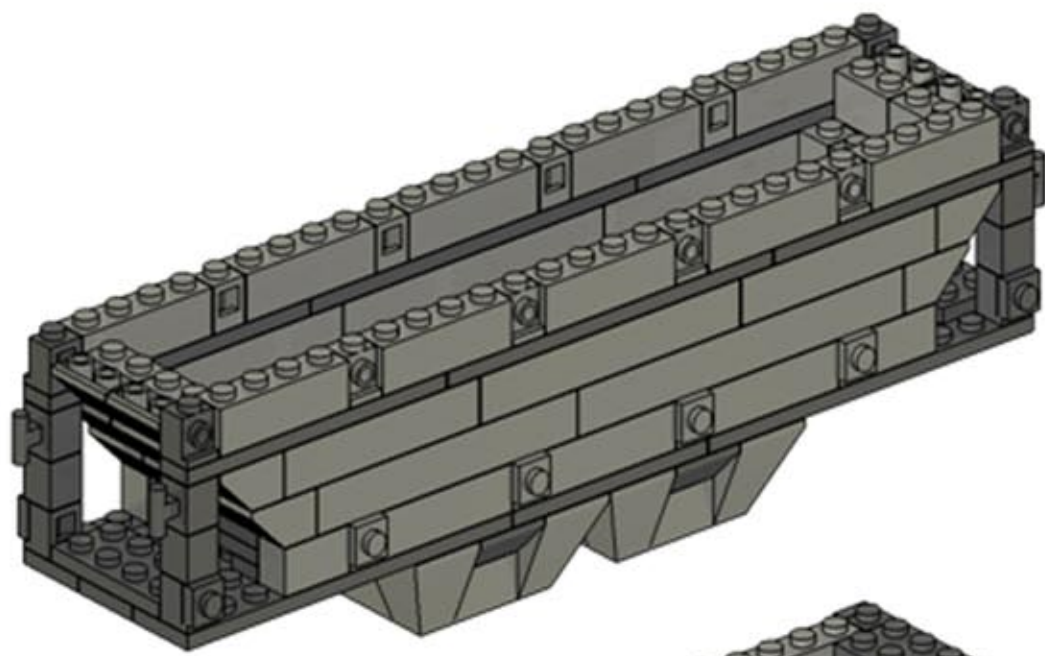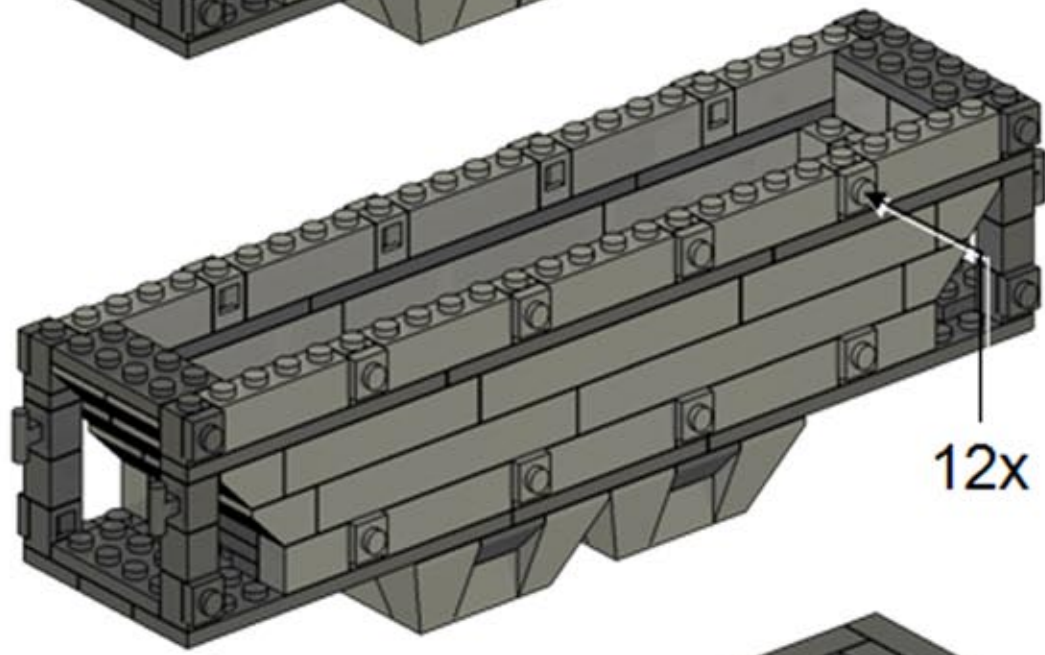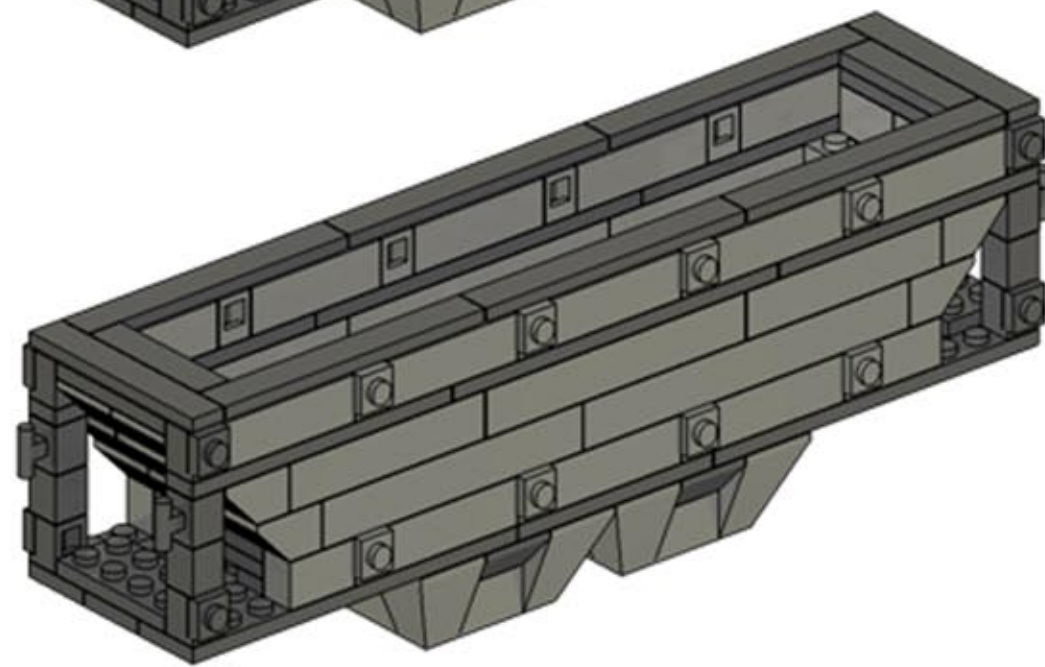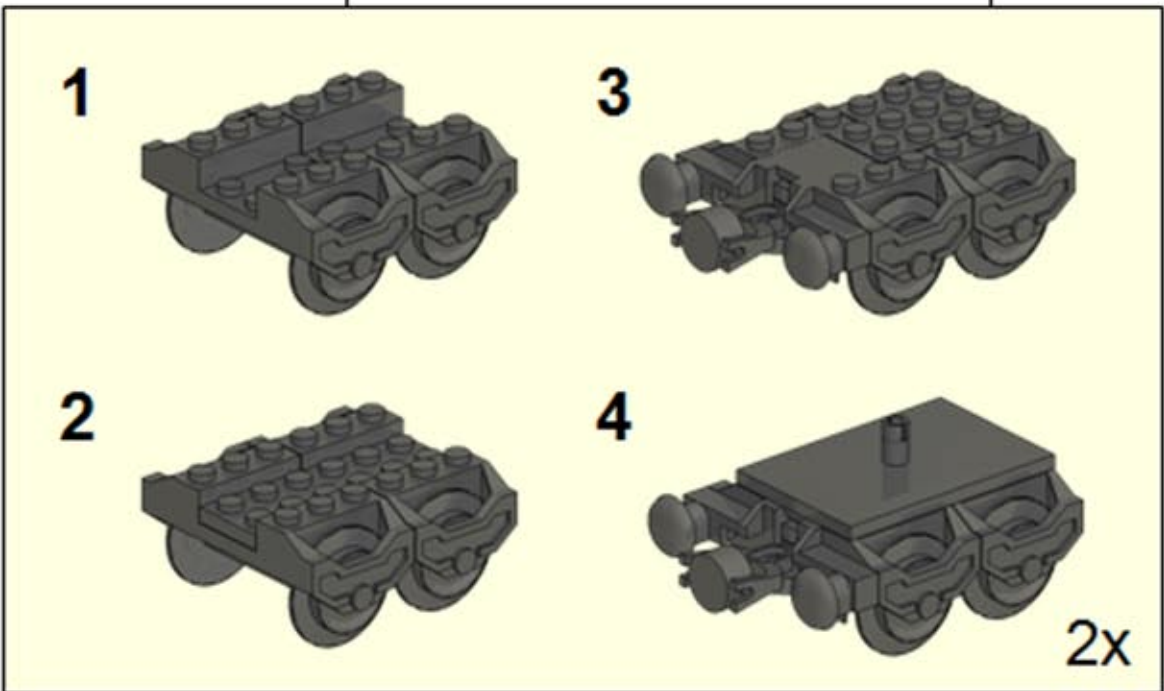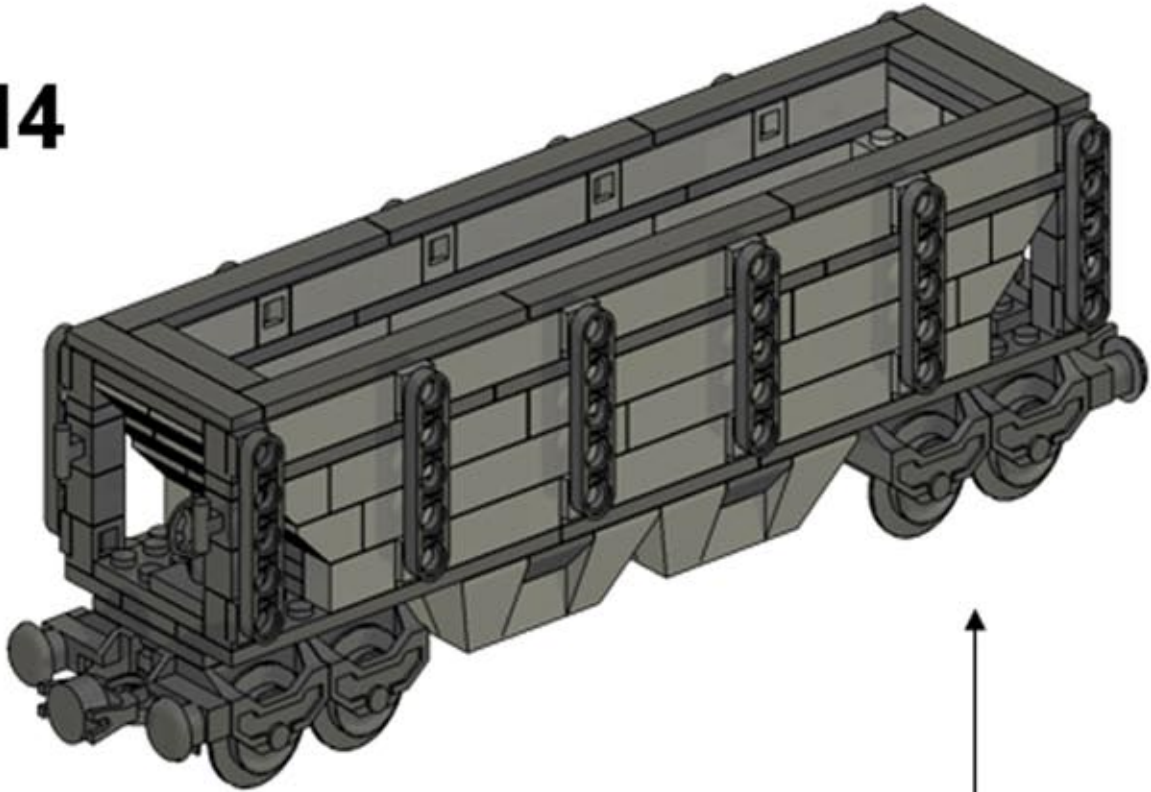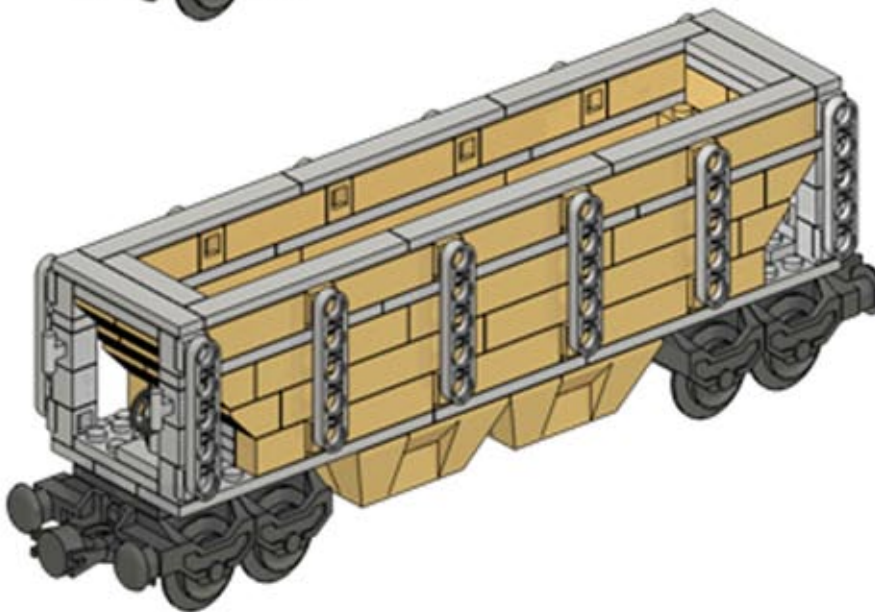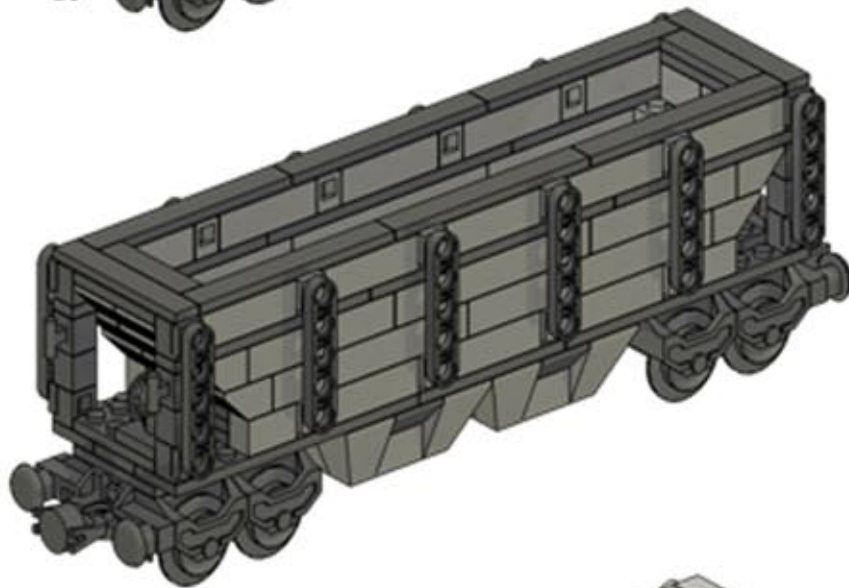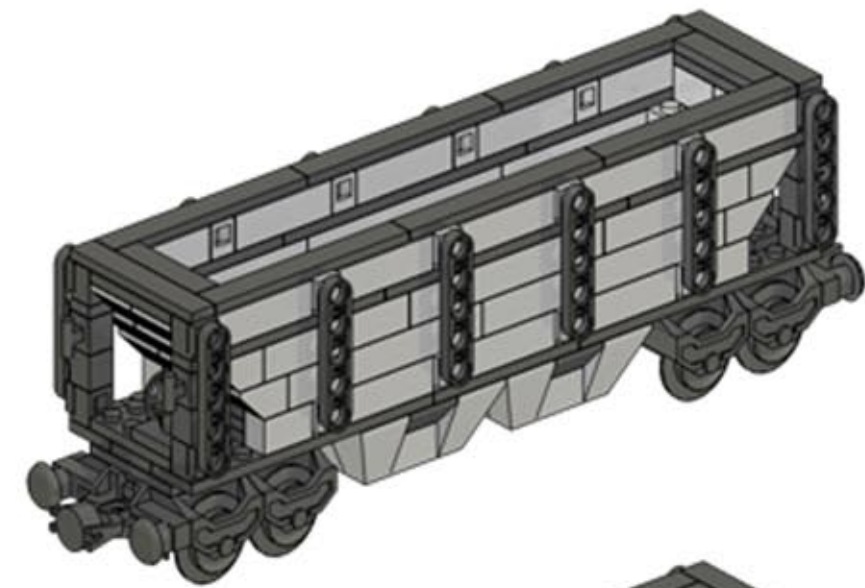
These designs originally came from BricWorX, a custom LEGO train company. Released in 2001, the Gondola was a popular custom set. In April 2002 the "Freight Train Instruction Book" (currently out of print) was published with the Gondola and Two-Bay Hopper which are in this issue of RAILBRICKS. The rest of the Freight Train included the Chessie Engine and Caboose and a Tank, Lumber, and Box car. The goal was to provide instructions for a "realistic" looking American freight train, constructed with easily available parts, in a time when the LEGO train selection wasn't optimal. Of course a couple short years later was the "hey day" of LEGO 9v trains.

The Gondola can be built in Black, Gray, & Red. There is a Dark Bley 28 stud train plate available now but no 1x1 brick w/handle or 1x2x3 panel in that color. The Two-Bay Hopper has three color variations shown and may also be buildable in Dark Bley. For other colors the gating element is the: 30373 - Slope Brick 65° 6x6x2 Inverted Quadruple (see below), but that does not limit the second color in the two-tone version. Both models are visible on many club layouts and have had several years of good service. Groups of three or more cars in the same color scheme look great! Realistic loads also make a great added detail. I hope you enjoy the build and running them on your layouts. RB

A DCC PRIMER
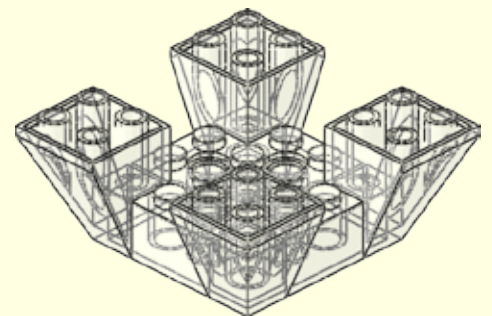
9V TRAINS: PUSHED TO THE LIMITS
... AND BEYOND

by Philippe "frogleap" Label

LEGO provides fantastic train system that is rebuidable, reconfigurable and expandable at your pace, brick by brick. It is relatively cheap compared to classical train hobby products and allows you to change your layout at will and continually expand it. I was modeling HO-scale trains during my dark age, although it wasn't really that 'dark' because I never stopped thinking of my LEGO bricks. After moving twice, where each time I had to dismantle my HO layout and destroy most of it, I became quite disappointed by the HO train system which can only be built once. With time, I realized that, like many train hobbyists, I was fond of building--playing a little--then rebuilding something else. Building was more interesting than watching trains running around the track. At that point, LEGO went back into my main hobby! With LEGO's great train system, you can build, play, and rebuild as much as you want. I am pretty sure you'll agree that it is the perfect hobby train system.

My HO period left me some unresolved expectations however. I wished that I could have several trains on my layout, which I could control separately and I wished that I could operate my switch points remotely. This led me to design large layouts using individual loops each train and to build some MOCs to motorize my LEGO switch points. I, however, felt unsatisfied by the poor playability I had compared to the traditional train hobbyists. HO-scale trains have one system that outperforms any other train system : Digital Command Control (DCC). Imagine having sophisticated play with many functions and not being forced to keep the same layout for your lifetime. LEGO & DCC is the solution. Et voilà !

WHY CONVERT TO DCC?

When you play with your LEGO trains, one of the pleasures comes from operating a few trains on the same loop or on parallel tracks and let them cross one other. Another fun game is to let one or two trains operate the main loop while playing with another in the train yard. As long as you use several 9V speed regulators on isolated loops as well as an isolated train yard, everything is (almost) cool. Of course you know that playing this way requires critical attention,

especially with switch point positions. But what about leaving a train stopped in the railway station with all its lights on? What about reversing a train in the yard while another is very slowly moving on the other end of the same yard? What about remotely uncoupling the locomotive from its wagons? Do you ever dream of this with LEGO? OK then… let's take a little tour of DCC-land.

WHAT IS DCC?

Let's take a look at how we can operate several LEGO 9V motors on the same track using the same power source. Regular LEGO 9V motors work with 0 to 9V digital current (DC). The more power you send, the faster they run. If you put several motors on the same track they will run altogether at the same speed. Now imagine that you reduce the size of the regulator so much that it fits right into the motor case. This regulator will control its own motor, not the others. Now you need to send the power to *each* onboard regulator with very long wires. Imagine the result after few rounds… oh my... ! We must now find a way to send power and instructions to each regulator through the rails (and forget the long wires...). Here electronics become your friend and much more. Fortunately, traditional train hobbyists have already designed this for us. There is a simpler way to send power AND instructions using the same rails. This is the heart of the DCC system. This system uses an alternate electrical (AC) current and codes instructions for the onboard regulators by frequency modulation. Now the onboard regulators receive power by an alternate voltage and decodes instructions from the frequency variations. Even better, the instructions are numeric: a set of binary codes, the very same system used in computers.

WHAT DO YOU NEED TO PLAY WITH DCC?

As a starter, just 2 motors equipped with onboard regulators (we will call these decoders from now on), and a central controller (called the DCC control center) replacing the former 9V regulator. This DCC control center will create the digital instructions and will combine them with electrical power and send this to the rails. Each decoder has its own address (its call-

ing number) and will acknowledge instructions only when they are addressed to them by number. Each decoder will take its power from the rails, and after instruction decoding, will send electrical power to the LEGO motor. To make this work you will have to modify your LEGO train motors. Once you do this, there is no turning back. This is the step that took me two years to decide upon. First, I was unsure if I could do it, but I was also wondering about the feasibility : would a decoder be small enough to fit into the LEGO train motor case? I had never opened a LEGO train motor before. Many questions were running through my head, and along with those, many doubts. This is why I decided after several years playing with DCC to contribute n article to RAILBRICKS. I'm nudging you to make that decision. I needed this help to open my first LEGO train motor. I did it, and you can do it too. If you are a real train fan and love to play with many trains, this is really the best solution you can find. As I mentioned, during my dark-age I played with HO-scale hobby trains for a bit. This was where I discovered all the power of electronics and what can be done with just a little handy skills. To put a decoder into a LEGO train motor you will need to be handy at least a little bit. Let's say that if you are not afraid of soldering a LED into a LEGO brick, adding the resistance and plugging to a 9V wire, then you can definitely do the DCC modification. Otherwise, just ask a good experienced friend…

WHAT IS THE POTENTIAL OF A LEGO DCC TRAIN?

Just imagine independently controlling 2 or 3 trains on the same track. You could do more... but you will need more eyes. Control the lights in a locomotive or in the wagons, sounds, an uncoupler, directional lights, smoke generator, etc...all as you please. Add to this a feature, where you can run your train at very slow speeds as well as at very high speeds. The latter is not so much beneficial because of the tightness of LEGO curves, which is definitely too small for very fast speed trains. In a way, though, it is a safer means to avoid burning out your LEGO motor because your train will be derailing more than running! Very slow speed is actually much more interesting. It can be as low as 5 cm per minute, from personal estimation, and exerts the same pulling power as regular speed. This means a train at full load will move at the slower speed without any stop & go. This all leads to very realistic movements in the train yard, for instance. Unfortunately, this nice feature produces a problem with LEGO switch points. A regular LEGO 9V switch point has a very narrow gap where the LEGO train motor is disconnected from the rail. I estimate this gap to be less than 0.3 mm, but it is there and is much more detectable on used switch points where contacts are somewhat oxidized or misshaped. The consequence is that with a single DCC-motor at very slow speed, your train will almost invariably stop while crossing switch points. One way to avoid this problem is to use two DCC-motors per train instead of only one. Per train does not necessary mean per locomotive. You can put one DCC-motor at each end of the train, it really doesn't matter. The trick is that, at very slow speed, there is a second DCC-motor moving the train while the first DCC-motor is crossing a switch point. If you think about it, this is not really a drawback, because most long and heavy trains require at least two LEGO motors to move anyway. This will significantly reduce the strain on a single motor, thus reducing over heating and wear.

DCC control also offers occupancy detection, radio frequency identification, switch point operation and whatever else that can be electrified along the track. Think of a turntable, moving bridge, industrial area, city lights, etc... and of course light signals are included. A more elaborate use can include route definition, where several switch points can be set at once. All of this can be combined with almost no limits, except your imagination. Routes can be triggered by either occupancy detection or light signals, for instance. Finally if you go for computer monitoring and assistance, you can also imagine letting a computer control part of your rolling stock while you manually play with one of the trains. With a computer (PC) you can do other funny train games. Read on...

THE DE FACTO STANDARD: NMRA STANDARD

There are several DCC-like systems. Some are proprietary such as the famous Mäerklin system, others share standardized features and functions. The most common standard is from the American National Model Railroad Association (NMRA). My personal advice is to make sure that whatever you buy, it will be interoperable with your existing equipment or with a friend's equipment. Do do this, simply make sure the system is NMRA compliant before purchasing. To know more about NMRA compliant DCC, take a look at http://www.nmra.org/beginner/.

PUTTING A DECODER INTO A 9V TRAIN MOTOR

This task is really stressing the first time you open a LEGO train motor. If your have decided to switch to DCC, just follow some simple rules. Organize your workbench. Use good tools to cut the plastic and the

wires. Use a 20-30W - no more - soldering iron and use quality solder. Make clear cuts and solder rapidly, so that the soldering remains bright. Be well organized, it is not a mistake that I repeated it, just a double check. I have prepared some pictures to show you how to integrate a simple decoder (with one accessory output) into the LEGO train motor. This is the simplest decoder type you could use. If you are interested in more functions for your locomotive (i.e. sounds, smoke generator, directional lights, uncoupler, etc...), I advise you to modify the motor to output wheels and motor contacts and to install the decoder inside the locomotive, instead of inside the motor case. Some final advice: modify only one motor at a time. The risk of failure is very low, especially if you follow my advice, but it is only a LEGO motor, nothing more... so keep cool. Ask for advice and if it is needed. Look for some help from an electronic-skilled friend. Most of the time, these guys will know how to use a soldering iron.

Here are the first three steps. Open the motor casing with a sharp blade by cutting and completely removing the twelve plastic pins under the case. The bottom part of the motor will slide away easily. Make gentle moves not to spread inner parts everywhere. Separate each part inside the motor as shown in the picture below. Pay careful attention to how the motor is assembled; you will have to put it back together at the end. Make sure you remove the thermal fuse (the little round coin at bottom-left in the picture). This is the only part that you will not put back.
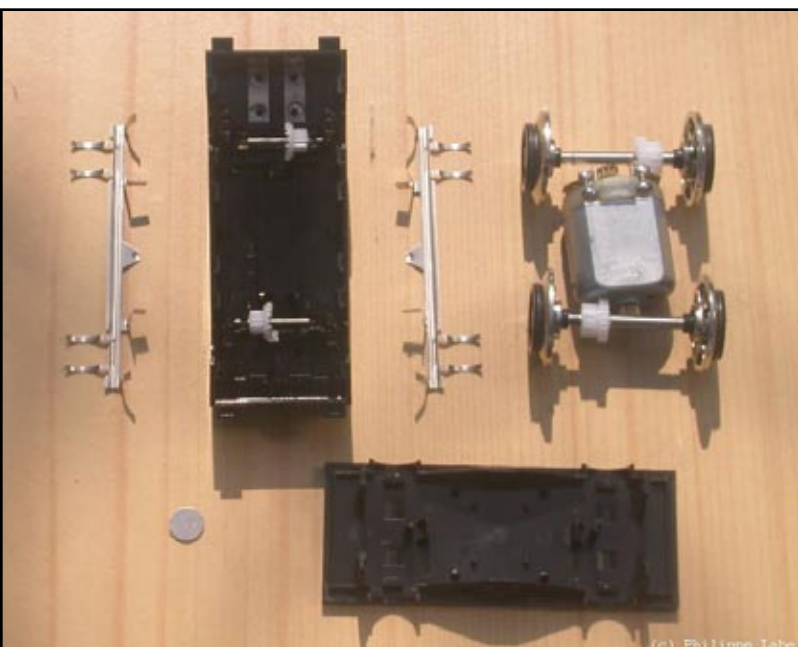
If you don't feel stressed by this picture, then you are psychologically ready to go for this modification. All steps are illustrated on this webpage, http://pag-esperso-orange.fr/chezfilou/montages-lego/Moteur9V_DCC/MoteurDCC.html . With these steps you can integrate a decoder inside a motor. Last but not least, make sure the decoder you plan to use has the right dimensions to fit into the motor case. Otherwise you will have to place it in the locomotive instead of inside the motor case. As I mentioned earlier, you may need to do so for functional reasons. If you plan to use multiple functions with your decoder, then it is wise to modify the LEGO train motor to output contacts into the locomotive and leave the decoder out of the LEGO motor. Basically, opening the motor is the same operation, you only need to output four single wires out of the motor case. These wires should be long enough to let the locomotive turn on the track. They will enter the locomotive and will connect to the corresponding wires on the decoder. Simply put, you need to bring the DCC current (power + instructions) from the wheels to the decoder and take the variable current (0-9V) from the decoder back to the electric motor. Of course, don't forget to isolate the wheels from the motor inside the motor case before closing it back up. A small piece of plastic tape on the electrical contacts should be enough.

CONTROLLING THE TRAINS
You now have at least one modified DCC-LEGO train motor on the track, although two would be better. Now, you would like to move them around. It takes a DCC control center to do so, something that will code instructions, combine with the power and send everything to the motor through the track rails.

One important point : remove ALL of your classical LEGO train motor (i.e.--non DCC modified) from the track. Classical and DCC current systems are completely incompatible. You can use a DCC-modified motor on a classical 9V system, thanks to a special build-in function in some decoders, but it is definitely impossible to use a classical LEGO 9V train motor with a DCC controlled system. One very good reason (this is your take home lesson) : DCC works with alternate current (AC-18V) and classical LEGO works with digital current (DC-9V).

A DCC control center, as well as decoders can be purchased at any hobby train store. This is the solution I choose for reasons I will explain later. However, a solution using the RCX has been developed by Mark Riley (home.surewest.net/markril/lego/dcc/index.html). Basically,

a special software loaded into the RCX will mix DCC instructions with voltage and send them through the track to DCC decoder-equipped LEGO train motors. The RCX has to provide enough current for all DCC-motors you want to run at the same time. This is the limitation of this solution because the RCX does not have powerful outputs. You could use a DCC booster between the RCX and the track, but this solution is almost as expensive as buying a basic DCC control center and is less convenient. I prefer to use a classical DCC control center which is designed to output 3.5 Amperes at 18V and makes possible to easily run about 5 trains at the same time. I use two DCC-motors per locomotive, which is in all ten DCC-motors at the same time. My personal DCC control center is an old Uhlenbrock Intellibox (Germany) and my DCC decoders are from Lenz (Germany). Many other DCC control center manufacturers exist around the world and the most famous in the US is probably Digitrax. Again, make sure that you buy NMRA compliant products,

I like the Intellibox because it has two knobs to control trains, a keyboard used for switch point operations and many other interfaces, which we will talk about later. You can also use it to program your decoders (mainly to set each DCC-motor address). Be careful, some cheaper DCC control centers can't do that. The Intellibox is also NMRA compliant and speaks Loconet... (read on). Programming a decoder with a unique DCC address is an important feature. What would you do if you have more than one DCC-motor built? All decoders are sold with address #3 pre-programmed by default. You absolutely need to assign specific addresses to each of your decoders.

To operate the trains is quite simple. You type in the address of the DCC decoder and the DCC control center will send instructions to this decoder. You don't need to know the details of how these instructions are programmed, just push the throttle or turn the lights on and the DCC-motor will do it. Only this specific DCC-motor, not any other on the track.

MOTORIZING THE SWITCH POINTS
The first advantage of DCC is controlling trains separately on the same track, the second is to operate switch points remotely avoiding a mess of wires on the layout. To do so, you will need to motorize your switch points. Many solutions are available, most of them being fully LEGO. Depending on your parts stock, two solutions are quite satisfactory. Both work with non-modified switch points and you do not need to cut or drill anything. If you have old Technic
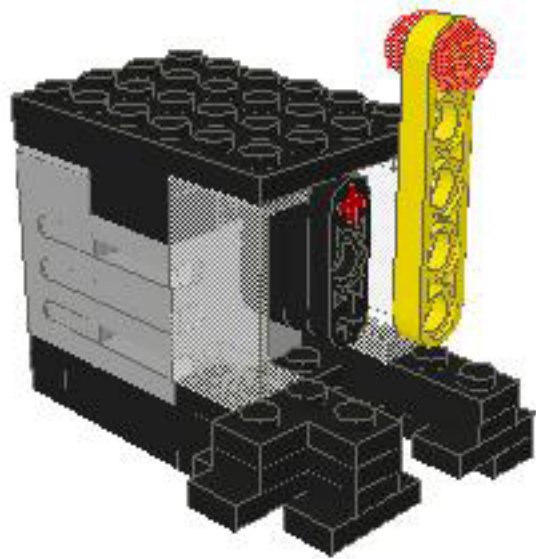
mini-motors (peeron #71427) then the first solution is enough. It is based on Mark Riley's design and the instructions can be found here, http://pagesperso-orange.fr/chezfilou/montages-lego/Mark%20Riley%20Evolution/Moteur-Evolution.html. It has a small footprint and is easy to put between parallel tracks. This mini-motor, however, is an expensive part and is no longer sold by LEGO.

A cheaper solution is available now with the new Power Function M-sized motor. It is nearly the same footprint as the previous example and is basically the same mechanics. A webpage for building instructions is also available, http://pagesperso-orange.fr/chezfilou/montages-lego/AiguillagePFS/moteurAiguillagePFS-M_couleurFinale_table.html.
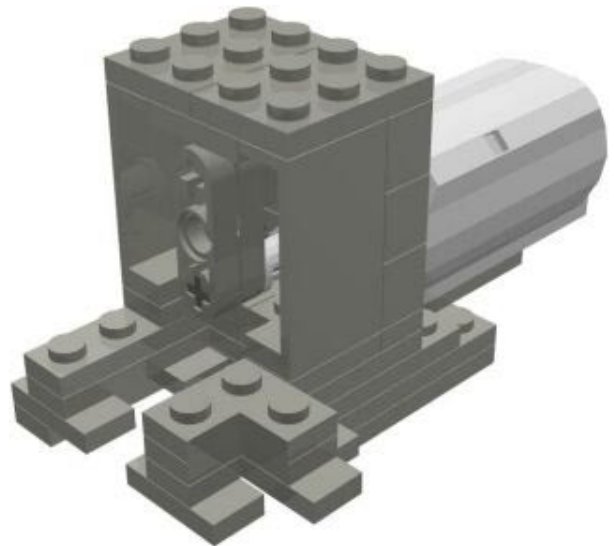
There are so many solutions to motorize switch points that you are limited only by your imagination. We are talking about LEGO, aren't we? The two solutions I proposed here are small, simple, and efficient.

There is one feature of the LEGO switch that will be a

drawback for DCC. This is the only case where I found that LEGO and DCC won't fit well together. What am I talking about? Well, you know that the LEGO switch point electrically feeds the track which is selected. In other words, a switch point in direct position, the direct track will receive power but not the spur track. This is a feature of the regular LEGO 9V system, because it allows you to stop a train on a siding, change the switch point, and thus electrically isolate the stopped train on the siding. For DCC this is a problem because you need every decoder to receive information no matter what the switch point's position. For many years, I have used a bunch of 9V track connectors to connect every track as well as each siding to the main. It was a 100% LEGO solution, but after several exhibitions and layout changes I became quite bored with doing all these connections. Eventually, I would forgot some and would get electrical problems during play. For these reasons, I decided to modify the electric circuitry of all my switch points to connect the three right rails together, and the same for the three left rails. This is what I call shunting a switch point. Optionally, you can decide to shunt your LEGO switch points if you want to avoid the use of many 9V track connectors. Remember, however, that this modification is optional; you don't absolutely need it to play with DCC-LEGO trains. It is simply easier for track layout. The modification is easy and is only a matter of soldering two wires under each switch point. Use this webpage and follow examples step by step (http://pagesperso-orange.fr/chezfilou/montages-lego/ShuntAiguillage/ShuntAiguillage.htm). This mod is reversible, simply remove the wires if you want to get back to a regular LEGO switch point.

CONTROLLING SWITCH POINTS WITH DCC
Now that your switch points are motorized, you have to use a special DCC interface for accessories. LEGO motorized switch points are considered as "slow motor" by DCC standards. In other words it is not operated by a solenoid which requires a single pulse to move. When you look for a DCC interface, make sure it can be used for a "slow motor". Again, there are many products available, from a single accessory decoder to a multiple accessories interface. The one I prefer is the Lenz LS150, because it has 6 outputs and thus is a moderate additional cost per switch point. With this interface, you can set the duration of the pulse down to 0.1 seconds which is enough for either switch point motorization suggested above. Moreover, you can feed the interface with separate alternate current, not

from the DCC line, which saves power for the trains. Actually, the output must be in digital current for the LEGO motor (either mini-motor or PF-M), but you must feed the interface with alternate current. The trick is simple and explained well in the LS150 manual. Just add a diode between the LS150 output and the LEGO motor. This will produce what is called a single alternated current. In brief, remember to feed the LS150 interface with an alternate current double of what is needed to operate the LEGO motor. Hence, AC 12-18V reduced to a little less than 6-9V in a single alternated current is fairly enough to produce power for the
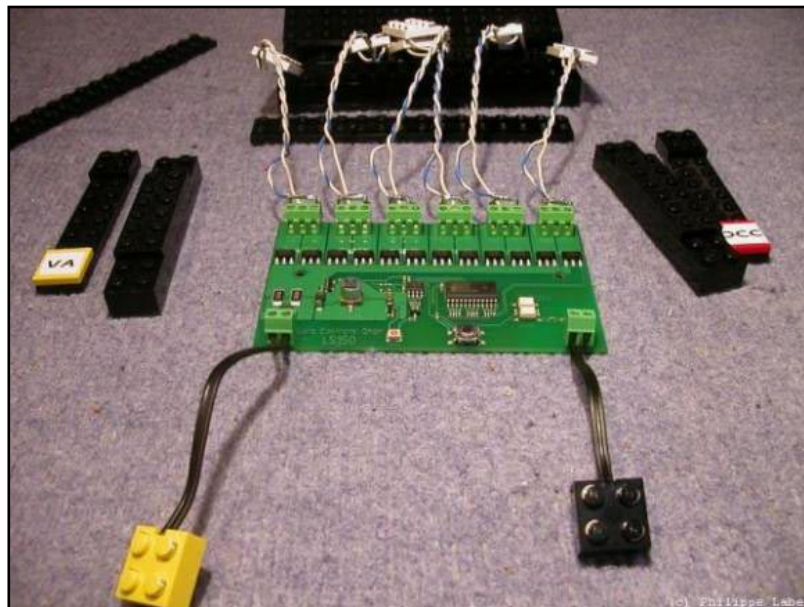
switch point LEGO motor. If you want to integrate this LS150 into LEGO layout, I have built a special casing for this interface using regular 2x2 LEGO 9V connectors. See this FreeLUG article for instructions. It is written in French, but the pictures are self-explanatory : http://www.freelug.org/article.php3?id_article=616.
    Practically, each output of the LS150 has a number (1 to 6 for the first one, etc...) and you just ask the DCC control center to change position of the switch point by the number of the output to which it is plugged. The more switch points on your layout, the higher the number. For each switch point you have two positions, direct or thrown. The Intellibox has a 16 touch keyboard which functions as an 8 switch points button control, one button for direct and the other for thrown. If you have more than 8 switch points on your layout, it becomes quite complicated to control them rapidly because it takes a lot of keystrokes to set the keyboard for the right switch point number range. And guess what? This was my problem...

USING THE DCC CONTROL CENTER WITH A PC

At this point, you have at least one DCC-equipped train, one motorized switch point and a DCC control center to play with it all. You could use your DCC control center basically the same way you would use a standard LEGO 9V regulator, except that now you control trains individually and remotely switch tracks from your chair. When the number of trains and remotely controlled switch points increases, a problem quickly arises. You don't have enough fingers to operate several switch point at the same time! Additionally, when you are concentrating on the control of two trains (or more...), it becomes quite easy to loose control of the switch points, and vice versa. *Vice versa is worse...!* Are you sure that you will remember relationship between the many switch points and their numerous corresponding buttons on your DCC control center? Well, personally I'm sure...I'm not.

In brief, we need an assistant. Fortunately this problem is an old one and already has several solutions. One solution is to build what is called an optical control board (OCB), a big board where you reproduce your scaled-down layout with buttons close to each

switch point for easy operation. This can be done with LEGO bricks and is a good solution if you don't change your layout very frequently. This is where my problem lies...I like to continually build and rebuild my layout. Hey, that's what LEGO is made for! So, I need a way to control my layout with the ease of an OCB and good adaptability for my frequent changes.

An old computer can be reused and connected to the DCC control center as an alternate solution. If you had the wisdom to buy a DCC control center with a build-in PC interface (RS232C or USB), then you are set. In my case, the Intellibox has a RS232C and speaks Loconet fluently. Loconet is a standardized language for communication between DCC control centers as well as computers. Your computer needs software to be able to speak this language. Again many solutions exists. The one I chose was JMRI's Panel Pro software. This is an open source software publicly available (http://jmri.sourceforge.net/). I like Panel Pro because it requires only java runtime environment to be installed and works nicely on my seven year old computer. Panel Pro recognizes the Intellibox automatically and has a bi-directional Loconet interface implemented. The benefit of this bi-directionality is that whatever you change on the Intellibox is sent to the track and shown on the computer screen (that's the point). Whatever you change on the computer is then also sent to the Intellibox which repeats the instructions to the track. Of course you can use the computer to move the train, but why would you do this since you have a DCC control center handy? The benefits of the on-screen OCB that you now have a point and click interface for the switch points. You don't need to put a lot of money into this computer. As I mentioned, a rather old one is probably sufficient. Panel Pro has executables for GNU/Linux systems as well as Windows.

To build the OCB with Panel Pro is fairly simple. Online documentation is clear and direct. You can use basic track symbols proposed by the software. If you like to stay with a LEGO look on your screen, load the switch point library I built from Track Designer bitmaps (http://pagesperso-orange.fr/chezfilou/FichiersTelechargement/PanelProLEGOswitchpoints.zip). Then you can use Track Designer (http://www.ngltc.org/Train_Depot/td.htm) To draw your layout, copy and paste the image into any photo editing software and save it as a .gif file. This will be the background of your Panel Pro OCB. The switch point icons will be useful in displaying the status of the switch point : direct, thrown, unknown and not-responding.
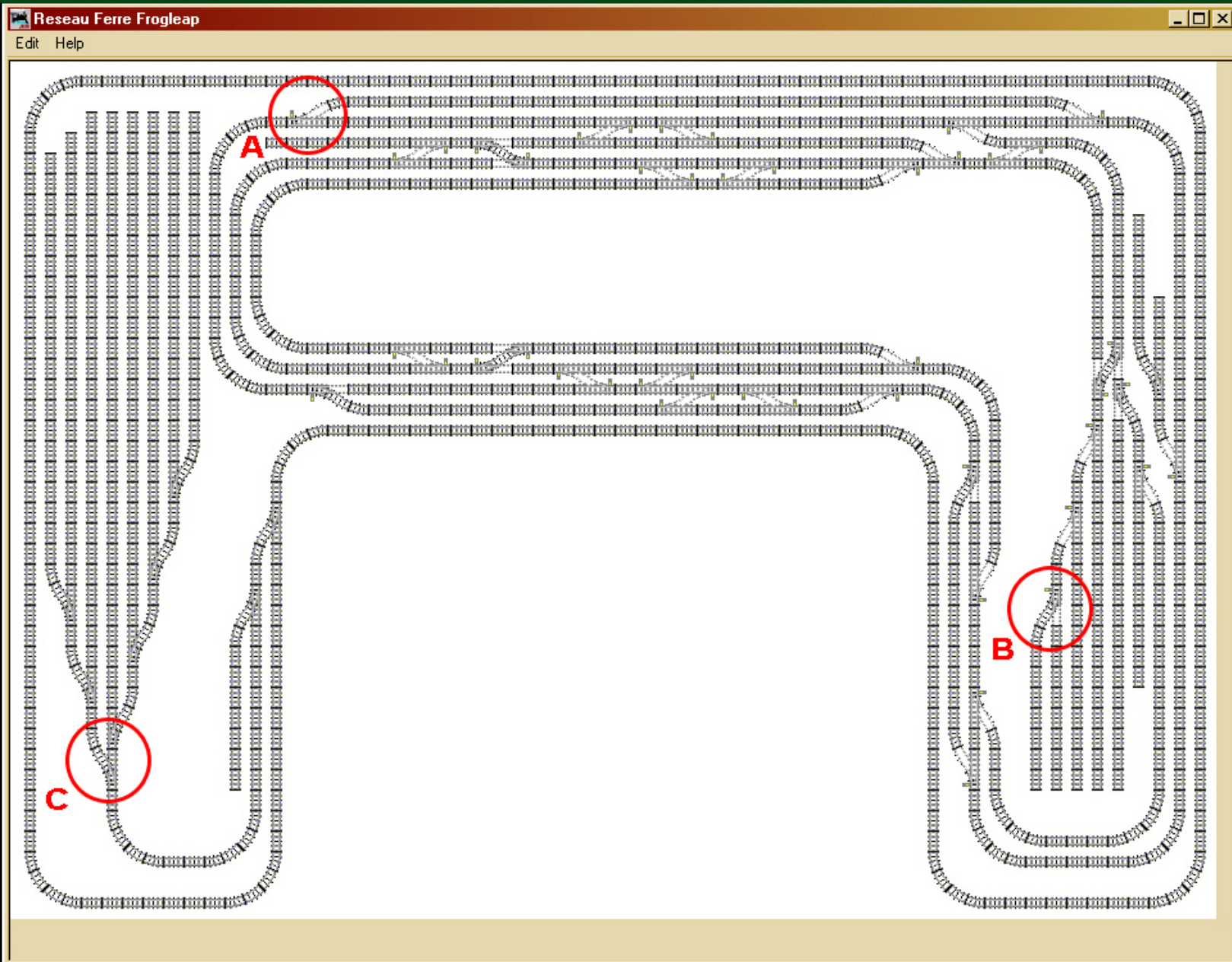
Look at the OCB in the picture above. It is quite large because it was designed for an exhibition. I don't have this much area at home... unfortunately. The background is from Track Designer (scale 2 studs per pixel). Switch point icons from my library are then overlaid. Look at the switch point circled in A. This is the icon you see when the switch point is in direct position. Clicking on this icon will change the switch point position. In circle B, you see the thrown position. You will notice many switch points not shown this way (circle C for instance). They have the original Track Designer switch image simply because they are not DCC operated.

Finally, you are in front of your layout with a PC connected to the DCC control center, a few trains equipped with DCC-motors (each having its own address), and a bunch of motorized switch points con-

nected to a DCC accessory interface. You are ready to play for the rest of your life. You could remain like this for years, building many different layouts and perhaps doing exhibitions, if that's what you like. Eventually you will invite friends to visit your layout and show them how fun it is to play with DCC controlled trains... and it is!

PLAYING WITH FRIENDS-
MULTIPLE TRAINS ON THE SAME TRACK
The next option will be to organize a LEGO train party at home, with each player controlling his own train on the same layout. You can also do this in a club, or even during exhibitions.

In the picture on the next page, you see four friends playing with LEGO DCC trains during an exhibition in November 2006 in Orléans, France. Do you notice

why you should keep your DCC addresses secret in a DCC party... or stay away from players trying to take control over your train.

PLAYING THROUGH INTERNET
Going one step further in the game, and by the way, an efficient means to stay away from over takers, use the internet to connect players to your DCC control center and let them control trains using remote Panel Pro on their computer. It takes a little software to do so, called LbServer. Again, you can find it on sourceforge (http://loconetovertcp.sourceforge.net/Server/LbServer/manual.html). It develops the concept of Loconet over TCP (transfer control protocol). In simple words, TCP is one of the languages of internet, whereas Loconet is one of the languages of DCC control centers. What this server does is to carry Loconet messages through the internet from one virtual DCC control center (the Panel Pro software on my friend's PC) to another DCC control center (my Intellibox at home). Basically each user configures Panel Pro to send DCC commands using Loconet over TCP instead of directly to a DCC control center. Of course you need to tell your friends the IP address of your PC. Then, on your computer, you launch LbServer and configure it to connect with your Intellibox. Don't worry, everything is explained in the LbServer documentation. You are now ready to play. Your LEGO trains will move on the layout without your control. You should at least tell your remote players what is happening to their trains. Better yet, give them some video feedback. The video feedback is efficient if you have a fast internet connection with at least 1 Mbps up and down speed. Skype video is simple and easy to setup for such a purpose. The fun comes when you move your own train with your local DCC control center and have to watch where other trains will go without your control. Since remote players also have control of motorized switch points, you must be very cautious with speed because switch points will change unexpectedly by other's decision. The downside is that you are the only one grabbing LEGO parts and repairing trains... do you see what I mean?

something strange in this picture? Well... they all play together on the same layout but no one is looking in the same direction! They are too busy watching their own train under DCC control using the knob at hand. Actually the funny story is behind the picture. Another friend is switching tracks randomly and they never know exactly where their train is going to run. Now you know why they watch so carefully. At the end of the party, we never knew who loved playing the most - the switch point gambler or the train drivers...

By the way, you might think that train accidents or crashes happen frequently during that kind of party. You are absolutely right. We are talking about LEGO again, so just grab the parts, rebuild, and go for another round. I would never do this with DCC operated expensive HO scale trains. I also wouldn't do this with some fantastic MOC, such as the trains from Ben Beneke for instance. Too many parts to grab! So, remember you are lucky with your LEGO bricks. They are made for kids and you are a child while you play.

Several drivers using the same track is always lots of fun. Even if no one is changing the switch points, you always have to watch your speed and other's train's speed. With a PC assisted game, you can prepare routes making several switch points changes in one click, and choosing the right moment to act, or let the computer decide by using the timer integrated in Panel Pro. You can also take control of someone else's train with your DCC knob. Just type in the DCC address of his train. So simple. Now listen carefully to the reactions when you stop his train just in front of the follower. Here goes the game. Now you know

DO YOU DREAM OF DRIVING YOUR OWN TRAIN?
If you are tired of collective DCC-parties and most of all tired of grabbing LEGO parts and repairing trains, here is another option for individual play (this could

be extended to multi-players as well). Take a video camera with short range radio broadcast. Some equipment used for video security are well suited for this purpose. These cameras are usually small enough, roughly one inch cube, to fit into a locomotive. They are battery operated and give a PAL color video image, enough for our use. The receiver will be connected to the video port of your TV set or, better, to a video card on your PC or a frame grabber-USB adapter. The result is to see the "subjective" image on a remote screen with no direct view of the train layout. Put cardboard around the screen so it makes a small cabinet like a train cabin. Bring the DCC control center, or equivalent, into the same cabinet and sit there. Now you have to drive your LEGO train as if you were the real train driver. You need to change switch point when you see them and decide where you go from the knowledge you have of the layout. The best is to add real signals along the track to give information to the driver. It is fun to build these signals in LEGO and helps you practice LEGO lettering with SNOT techniques. As I mentioned, you can bring the DCC control center into this cabinet, or even better use a PC to perform three functions at the same time : visualizing the "subjective" image from the camera, show the OCB of the layout and remotely control your layout with Panel Pro used with LbServer in a local area network at home. The point is to only have feedback from the image in front of you. It is a strange experience to feel so dependent on external events and relinquish the full control you normally have when you play in the middle of your layout. In a way, you play just like your friends do when they control your layout from a remote location, but instead, nobody is there to help you. This type of play can be developed for multi-users play but requires separated video channel systems and one receiver per player.

WHAT REMAINS TO BE EXPLORED
There are probably many more options to explore in this game system. Some can be identified easily because they call for functions that already exist in the DCC world, though not always perfectly mature. Until now, I have not experienced these possibilities, so this part remains theoretical from my point of view. For instance, you could consider adding positional feedback of trains on the track. There are three options for this. First, a simple presence detection, with yes or no response. It requires separating the layout into track sections at least longer than the longest train you plan to run. You then configure Panel Pro to check that any train is always alone in its section

and that, when running, no train is present in the section in front of where your train is going to enter. This is also called the block system. Second, the identification of the train by barcode (placed under the locomotive) or by radio frequency identification chips (RFID). This latter option seems better to me because the detector is less prone to disturbance. This way your train ID is sent back to the PC which knows for sure who is where on the layout. Third option is to use a relatively new feature of DCC communication called Railcom. This feature uses the track in a bi-directional way to send DCC commands to devices (classical use) but also with a special DCC decoder to send back its identity through the same track to the DCC control center. Again this information can be forwarded back to the PC by the DCC control center. In my opinion this Railcom system is not mature yet and deserves more standardization and integration into DCC equipment to be considered safe and usable.

Whatever type of feedback you adopt, you must decide how the information will go back to the PC. Except for the Railcom system where feedback is done exactly by the same way as the command (track and DCC control center), other systems require separate electric lines to carry information, because until now, NMRA DCC standard has been unidirectional from the DCC control center to the decoders. One protocol and interface widely used is called S88. The Intellibox has such an interface. However, it requires detectors, transducers and S88 bus multiplexers which are not easy to set up, at least for me. This is my limit until now, but I am sure the community will help with many experiences to come. Play well. 𝕽𝕭

B BRICK BUILT ROADS
*by Mike Gallagher*
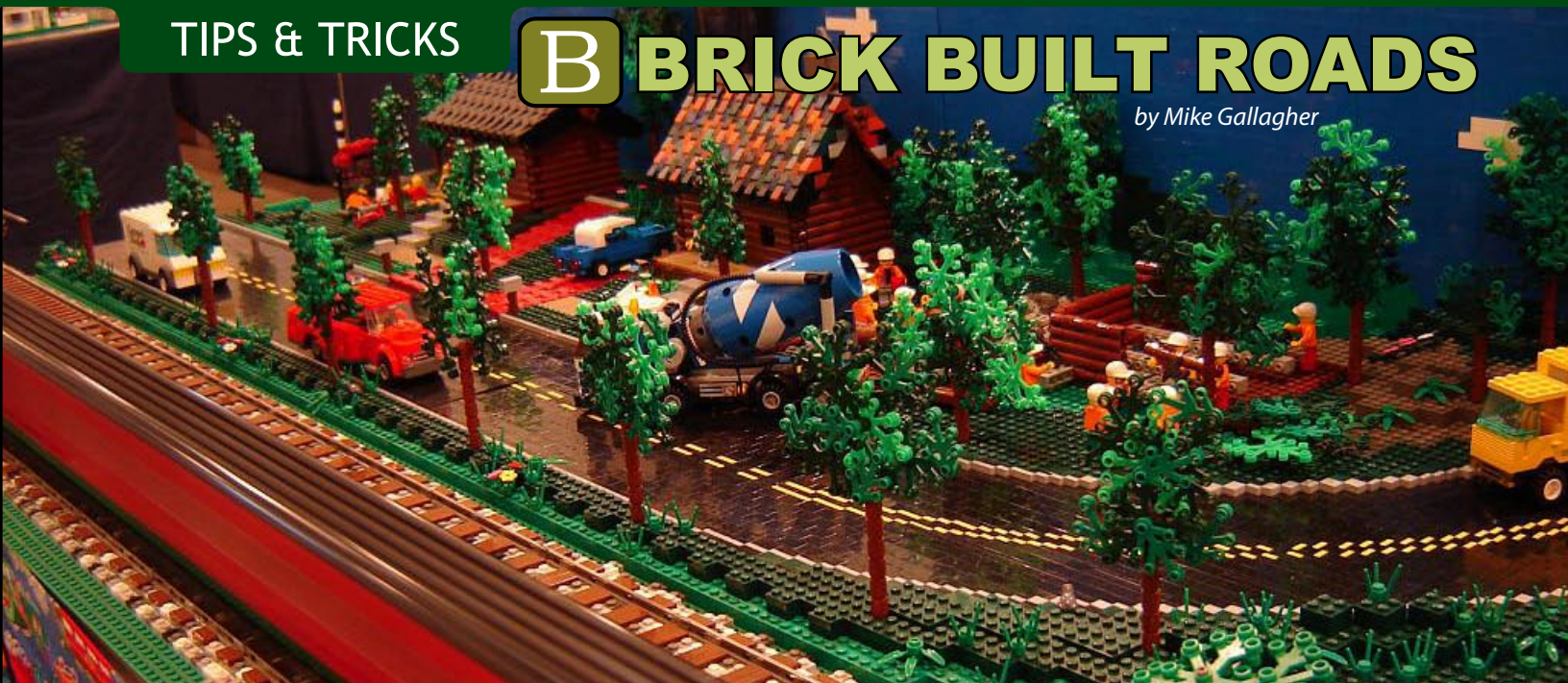
When I first agreed to write an article for RAILBRICKS I did not know what I was getting into or that there was so much to say about SNOT (<u>s</u>tuds <u>n</u>ot <u>o</u>n <u>t</u>op) Roads.

Up until writing this article I had thought that SNOT Roads made an appearance at shows until 2004. I then found pictures on Brickshelf from 1999 and 2000 of the Greater Midwest LEGO Train Club's (GMLTC) display. The images were a bit hard to make out but here was a club that had already started to ballast track and build SNOT roads, even some with slanted parking.

Perhaps they were not documented, but I could not find any images of this type of road construction again, until 2004. Today, however, just about every LEGO train display utilizes some sort of SNOT pavement. The list of MOC ideas for different types of roads could go on forever, but for this article, I'll focus on the basic styles of the simple straight road.

Over the years I have attempted to assign categories to different styles of custom brick built road designs. In this article I will separate the various road designs by the style of sidewalk: Plates (SP01), Bricks on sides (SP02), and Tiled (SP05). I have always used bricks on their side for the Road surface but I will go over the use of plates and tiles as well.

Let's first look at some less brick intensive alternatives to the standard LEGO road plate. As you can see in SP05_BP, I've simply added tiles to the baseplate once available on LEGO Factory. Any free studs on this particular plate are open for adding detail. We can add tiles for the sidewalks, light poles, and signs.

SP01
292 pcs.

SP02
420 pcs.

SP05
450 pcs.

SP05_BP

140 pcs.

SP05_LBPT

278 pcs.
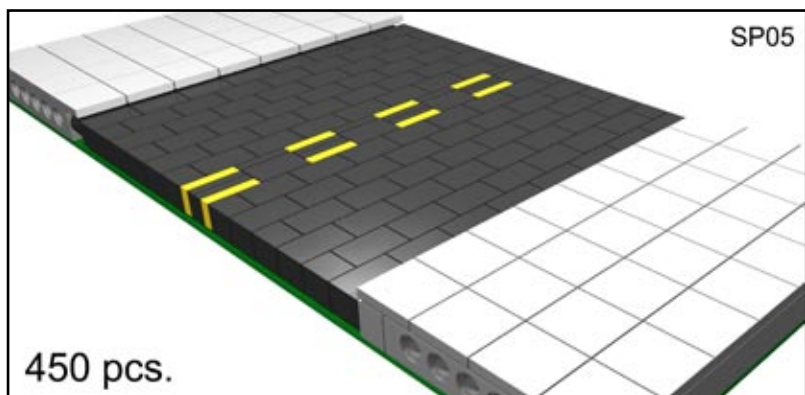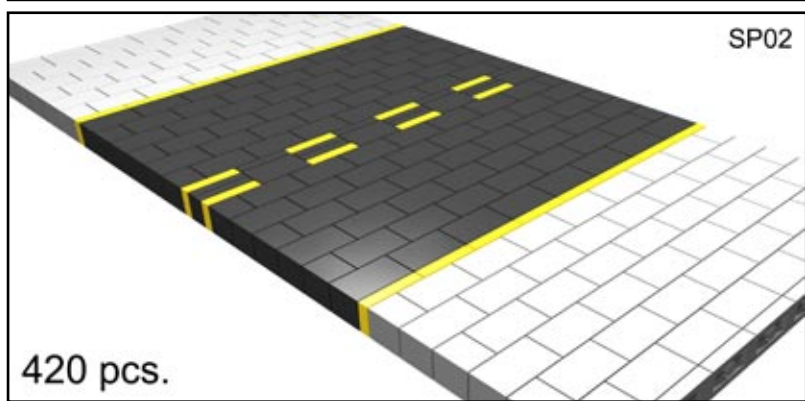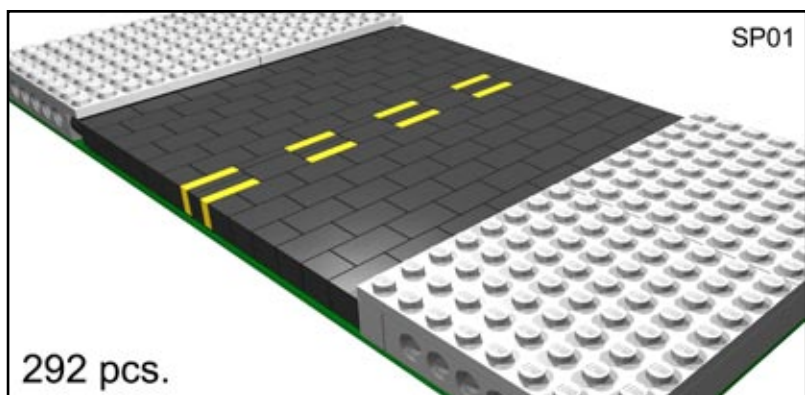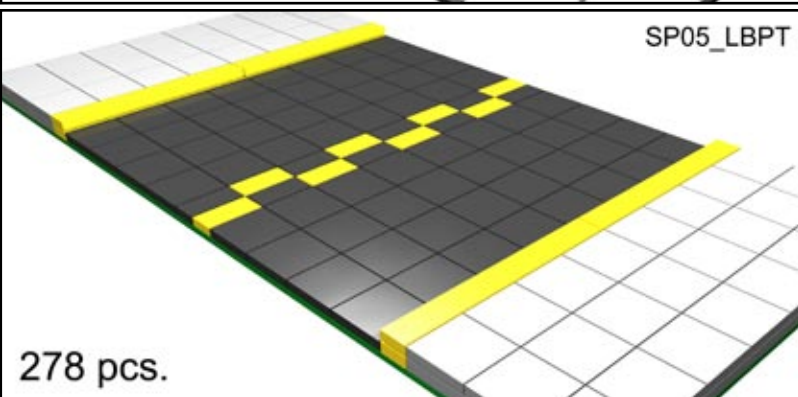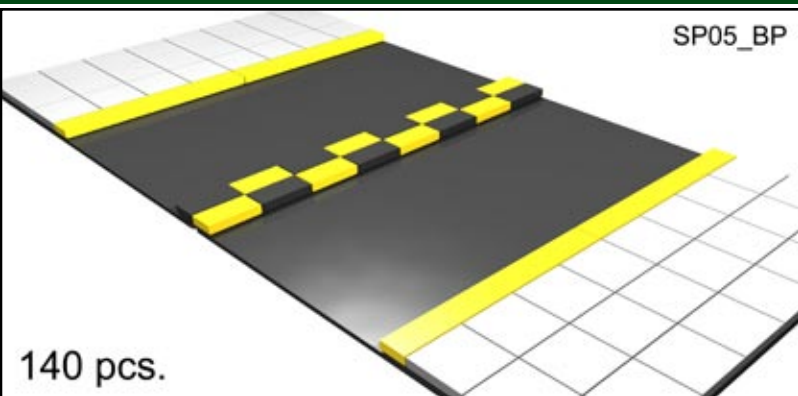
One advantage to using these baseplates is the fact that you do not have to be too concerned about matching plate heights. When you are dealing with just a few plates in height, the difference can be un-noticeable. In the SP05_BP example, there is merely a on plate difference in height from a standard, un-decorated baseplate. A similar look can be achieved by using a standard baseplate and tiles for the road surface, as seen in SP05_LBPT. Here, I've also raised the sidewalk by one plate. In the SP05_P and SP05_T examples on the right, you can see the difference in using plates or tiles for the road surface. The side-walks here are raised even further to one brick plus plate / tile. This gives a nice separation between road and sidewalk area. Now there is room to add ramps at the cross walks. The adjacent baseplates would need to be raised to match the sidewalk heights in these designs, but the end result is well worth it. With the extra height in the sidewalk area, you could use SNOT to create unique patterns.

SP05 is the basic idea for most clubs' current custom roads that use tiles for the sidewalk along with bricks on their sides for the road surfaces. The sidewalks are the 1st plate above the road surface as shown. The options are endless - you can add plates to raise the sidewalk, add drains and so on.

SP01 is identical to SP05 but instead uses plates in-stead of tiles. This solution is much cheaper than us-ing tiles and is easier to detail with all the exposed studs.

The SP02 version is a throwback to the printed LEGO road baseplate. This design ended up being the gateway to my current designs. In these designs, the whole BP size is a single flat surface using the tran-sitions from one colored brick to the next to deliver the separation between road and sidewalk. This de-sign offers endless opportunities for embellishment. I first exhibited these on a hill design during a show in early 2005. A good length of 1x2 bricks can be used to create a bend in the road surface to make a hill or valley.

Central Ohio LEGO Train Club (COLTC) has set a modular Road standard for the group. The detail of the standard is explained on the next page. COLTC uses old baseplates of all sorts, no need to have nice new baseplates that will only get buried under SNOT pavement and sidewalks. We even use LEGO road baseplates, since only the sidewalks require an at-tachment. The road surface then slides in between the sidewalks. This design gives the builder several options for further detailing. The blue and red bricks can match the sidewalk or surrounding areas. For most of the COLTC roads we use green so they can blend into any green BP that they may be against. For any MOC or city block that would go next to these road modules, we raise them by 1 brick and 1 plate. By doing this, doors or walkways will be at the same level as the sidewalks on the road modules. Standard baseplates placed adjacently suffer a height differ-ence, but matching colors masks this a bit.

SP05_T

330 pcs.

SP05_P

194 pcs.
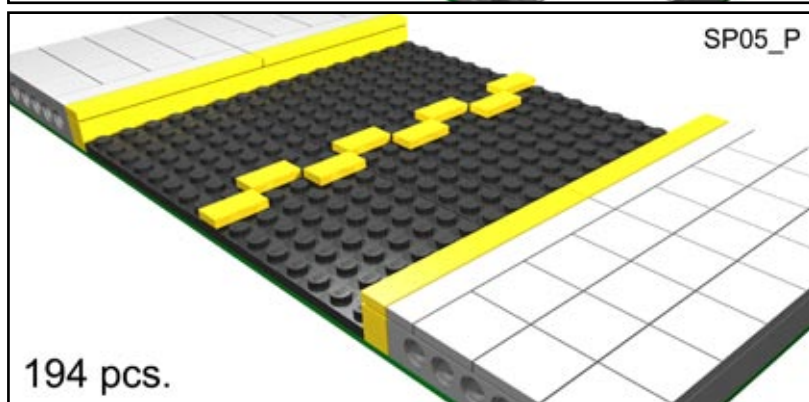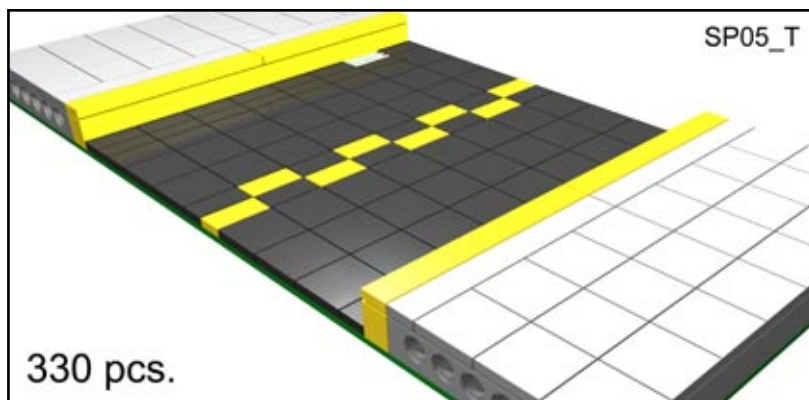
HOW TO BUILD THE COLTC STANDARD 32X32 STRAIGHT ROAD MODULE

Find a 32x32 baseplate with at least 6x32 of usable studs on 2 sides. The studs between the two 32x6 areas will support the road surface. If you use a 32x32 baseplate with studs throughout it will cause a very slight upward bend due to the very small LEGO logo on each stud. This build is not possible in LEGO Digital Designer because of this slight variation in height. Adversely, if you use a 32x32 road plate that does not have studs between the sidewalks, it will make the road surface sag in the middle.

Depending on your color scheme and needs, you will need several 1x4 Technic beams for connecting adjacent modules together in your display. COLTC uses 8 total, 2 on each side (Shown in red). Keep the Technic pins out of the module for now.

Using the same color as the Technic bricks, add 1x bricks to fill in the perimeter of the module. These are shown by the blue bricks in the example.

Next, add some filler bricks under the sidewalk. These can be of any color or size. Simply insure that you have enough to support all of the sidewalks.

For the road surface I prefer Black 1x2 bricks, which gives a uniform look throughout. For some of my larger road designs, such as curves and to surround any SNOT pavement signs or walkways, I do use larger 1x bricks for added support. I'll demonstrate these in an upcoming issue of RAILBRICKS.

To keep costs down, I like to use as many 1x bricks as possible. This minimizes the need for plates and tiles for the road surface. With 381 parts for a 32x32 road module, things can get out of hand quickly. The supply still looks endless for 1x2 bricks but 1x plates and tiles can get expensive and bulk quantities seem to be limited.

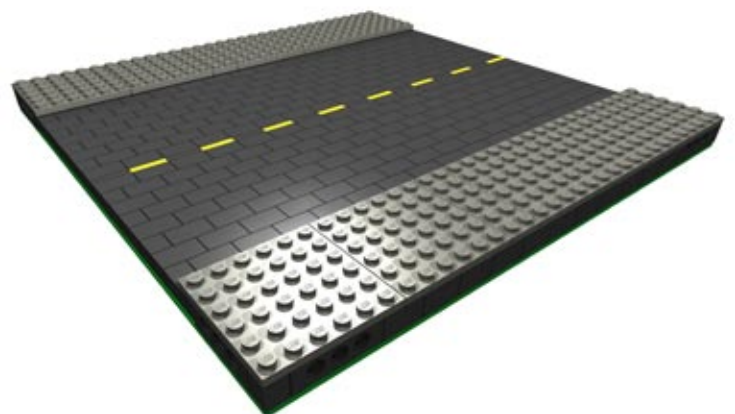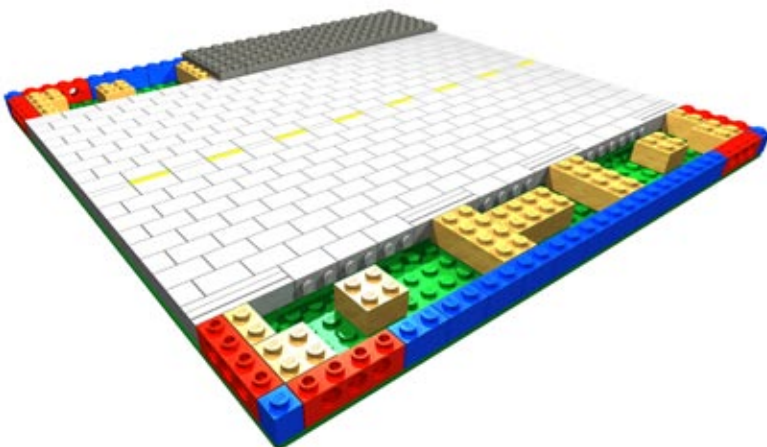Once you have the road surface made you can place it between the sidewalks. It will be tight and you may need to gently force the road surface into the module. Once the road deck is in place you are ready for your sidewalks. If you're going for a smooth sidewalk, you can place tiles on top of a layer of plates. Personally, I prefer the 8x16 tile which doesn't require the use of underlying plates at all. The only down side of the large tiles is that they give you no options for attaching anything to them.

You can use several different colors for the sidewalks ranging from grays for city areas to green for rural areas. It is suggested that you use 6x6 plates or larger, otherwise the module tends to be not as sturdy. 6x16 plates, however, tend to bow the module. Regardless of what you use, you will need the bricks under the sidewalk plate seams to lock module together.

All that is left to do now is add your extras to each module. Hint: do not go overboard. It is important to have enough space around objects and cars to allow the viewer to take it all in. With these exposed studs you can attach lights, mailboxes, signs, MiniFigs, benches and so on. For COLTC's displays, we add all the details after all the road modules are in place and connected together with Technic pins. The 1x4 Technic beams on the module's sides can be used to attach any MOC's they may be against.

These modules are nice and simple; they can be stacked and easily boxed up for travel. They are sturdy and need little packing material to protect against damaging. They are a very easily placed in a display, unlike my current road module designs which have several parts that do not store as well. But I will leave that for next time… RB

See more of Mike's unique road designs at
GallaghersArt.com

► http://www.brickshelf.com/cgi-bin/gallery.cgi?f=338380

► http://www.brickshelf.com/cgi-bin/gallery.cgi?f=326800

► http://www.brickshelf.com/cgi-bin/gallery.cgi?f=332106

► http://www.brickshelf.com/cgi-bin/gallery.cgi?f=326351

► http://www.brickshelf.com/cgi-bin/gallery.cgi?f=340600

► http://www.brickshelf.com/cgi-bin/gallery.cgi?m=jordan

► http://www.brickshelf.com/cgi-bin/gallery.cgi?f=342329

► http://www.flickr.com/photos/23498464@N03/

► http://www.flickr.com/photos/gambort/2865408610/

► http://www.flickr.com/photos/swoofty/2844245497/

► http://www.nelug.org/mediagallery/album.php?aid=357&page=1

► http://photos.freelug.org/main.php/v/Charlie/ATAT/141R840/

RAILBRICKS

MODERN STEAM TRAIN COMPETITION

by Tim David

What would steam trains be like if they were still being developed and built today? Imagine that the diesel engine never existed and electric trains were limited in use and design. Build your own modern steam train interpretation in LEGO to win a BIG BEN BRICKS® 24 Wheel Train Kit.

Here's a chance to find out some history. How far did steam train design get before development stopped due the onslaught of the diesel revolution? What were the most modern steam engines and when did they stop being used? Check out the work of Andre Chapelon and Livio Dante Porta. How did steam develop in China and Africa?

Here's some existing steam technologies to consider; Beyer Garrets, steam turbines, condensing systems, gas producer fireboxes, steam railmotors, and Southern Pacific Cab Fowards.

When you design your train, consider what role it will fulfil. Do you need a switcher or a local passenger train? Is sheer size the most important thing, or do you need speed?

How could modern electronics add flexibility to the way steam engine work? What changes would you need to make to meet modern emissions regulations? How have working practices changed since steam was king?

To get you started, here are a couple of ideas.

• Steam metro, multiple cars with the power plant under the body and no smoke or steam for use in tunnels.
• Medium freight locomotive, capable of coupling multiple units together and operating with a single crew.

For your chance to win, send your pictures to steamcontest@railbricks.com with a description of the thinking behind your design. Please include your real name and age.

Entries must be received by December 31st, 2008.

And remember, we are not necessarily looking for Steampunk or Space trains, just your interpretation of an alternative version of today's railways. **RB**

I'd like to wrap up this issue by discussing the Online LEGO Train Community. During the Brickworld Train Roundtable, we discussed the recent sharp decline in online train discussions. In the glory days of the online AFoL community, LUGNET was considered the one stop for all things LEGO. Many great discussions were had on this forum and many excellent and inspiring MOCs were unveiled there. Today, LUGNET is but a sliver of its former glory, the reasons for which could encompass a graduate thesis. Many point to the splintering of the online community into smaller theme specific sites such as Classic-Castle and Classic-Space. These separate theme related sites have flourished in the wake of what was once the Mighty LUGNET. Other sites have also tried to be the all encompassing LEGO Community with very few succeeding in LUGNET's footsteps. One great active community, however, is EUROBRICKS (www.eurobricks.com). Although originally billed as the European LEGO Fan Community, it has since become a global community and quite possibly has the most active LEGO train forum on the internet, with a close second given to 1000 STEINE (www.festum.de/de/).

Trains-n-town.com invites LEGO train fans to participate in online discussion and MOC sharing

The Community at large has splintered into theme specific sites, but the Train community has become silent. I sometimes wonder how many great MOCs I will never get to see because there was never a picture or write up of it posted to an online gallery or web forum. If splinter groups are the next evolutionary phase of the online LEGO Community, then our newest RAILBRICKS Think Tank member, Eric Kingsley, has the answer. Eric has developed a splinter site for LEGO Trains and Town aptly named just that: Trains-n-Town (www.trains-n-town.com). While it has taken a little while to generate steam, the site has gathered a commendable sized user base and topics and MOCs are discussed and showcased. The site is very easy to navigate and creating posts is very intuitive.

Classic-Town.net showcases the best of trains and town on the web as well as bringing you news and reviews

Another site that has recently cropped up is Classic-Town (www.classic-town.net). This site is less of a forum and more of a MOC and news showcase, run by the EUROBRICKS administrator Mark Larson.

In the midst of Brickshelf nearly shutting down, many LEGO Train fans have spread their pictures across many sites. The more popular of these gallery sites include both MOCPages (www.mocpages.com) and Flickr (www.flickr.com). While MOCPages is still LEGO centric, Flickr adds functionality not available on other sites, such as adding notes to pictures, and in my opinion, a very slick feature!

In conclusion, I challenge all of our readers to become more active online. Pull out that camera and take pictures of your MOCs. Pick a suitable forum and become active! After all, it was this online sharing that got our community to the point it is today. Without this community, there would certainly be no RAILBRICKS!
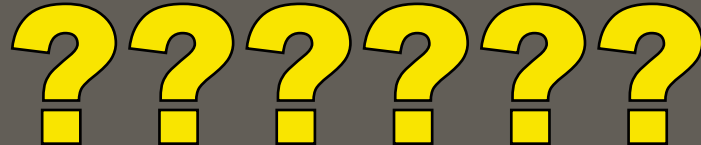
See you next issue!

-Jeramy 🄱
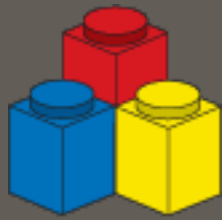
BRICKCON

October 2- 5, 2008
Seattle Center - Seattle, Washington

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Stay Tuned Sunday Night
during the Convention
for a Special Announcement!