BALLASTING TRACK

Steve Jackson
Texas Brick Railroad

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Track Ballasting

- **What is ballasting?**
- **Why to ballast your track**
- **Why NOT to ballast your track**
- **Basic straight and curve builds**
- **Special builds**
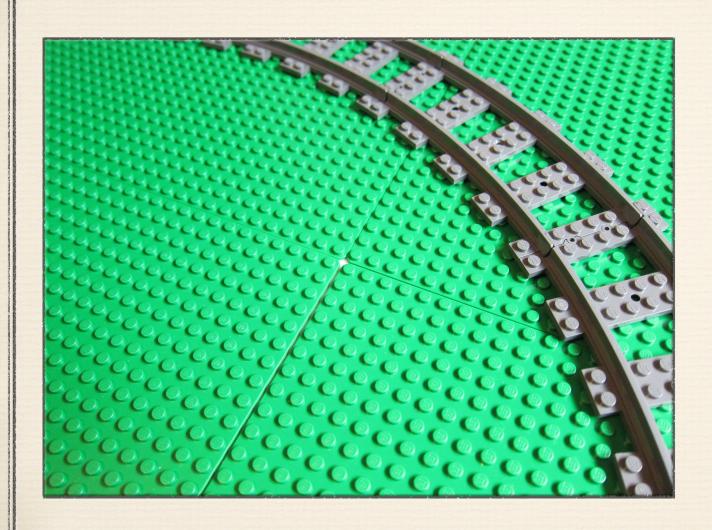
What Is Ballasting?

Ballasting is the loose stone placed between railroad ties to provide drainage and help keep the rails from shifting. It's the reason most track is raised a little bit above ground level.
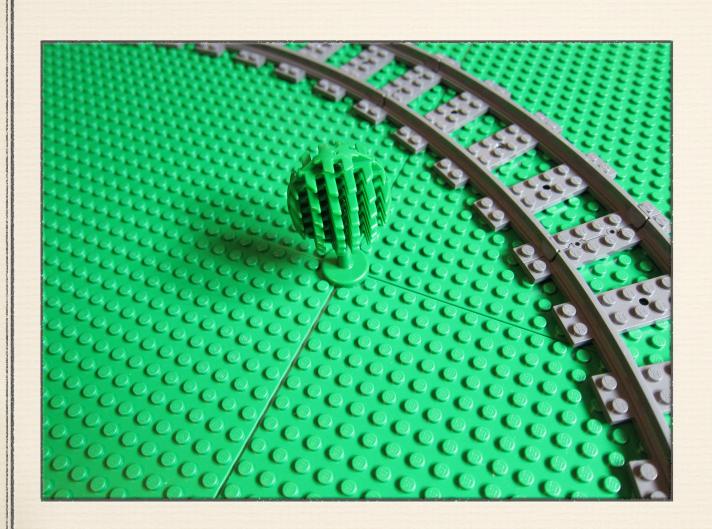
Why Ballast?

Because it looks realistic! It's a bit more stable than bare track, especially on curves, but we're doing it for the appearance. Conventional model railroad layouts, as well as real tracks, are ballasted.

Why NOT Ballast?

Lots of reasons! It's time-consuming. It's expensive. It's heavy and takes up storage space. It takes longer to set up than track on bare baseplate.

Why NOT Ballast?

Lots of reasons! It's time-consuming. Its expensive. It's heavy and takes up storage space. It takes longer to set up than track on bare baseplate.
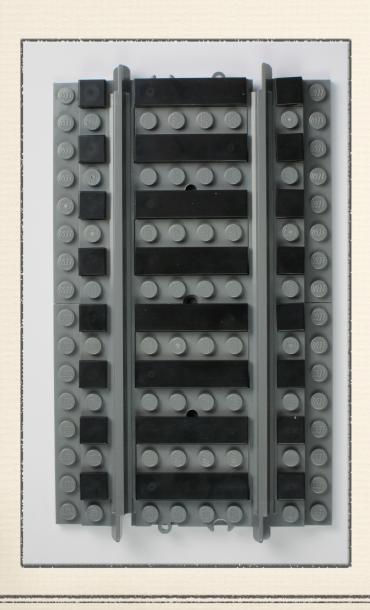
So is ballast necessary for a good display?
NO.
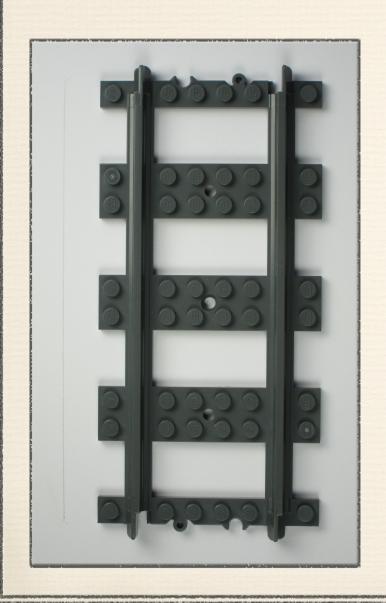**But it can make a good display better.**

Storage and Transport

4 x 3 Ballasted 32 x 32
Steve Jackson

3 Ballasted 32 x 32
Steve Jackson

4 Ballasted Single
Mainline Curves
Steve Jackson

4 Ballasted Single
Mainline Curves
Steve Jackson

If you create display modules, you need to package them for storage and transport. I use trays, stacked in boxes, stacked in cartons.

Straight Track Section
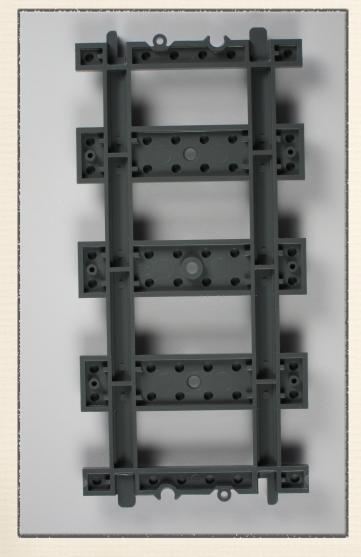
This will build one section of ballasted straight track.

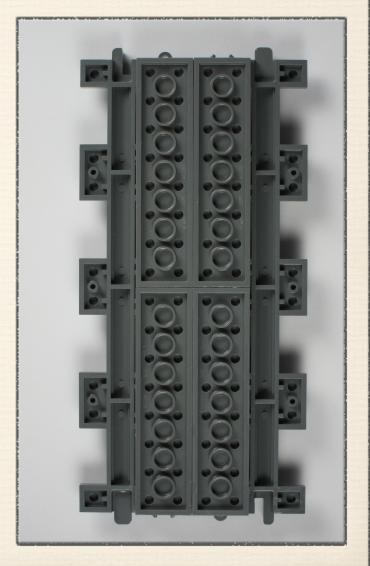It takes four sections like this to build one 32 x 32 baseplate of double-track mainline.
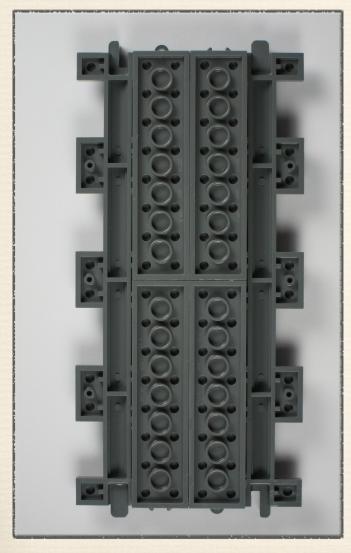
Straight Track – Step 1
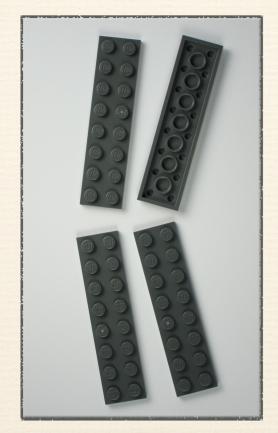
Start with a straight track section.

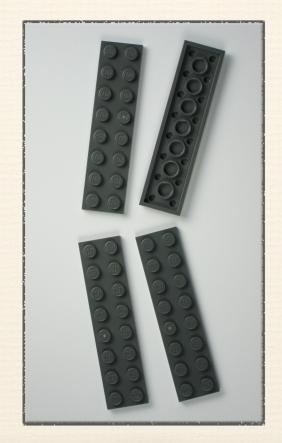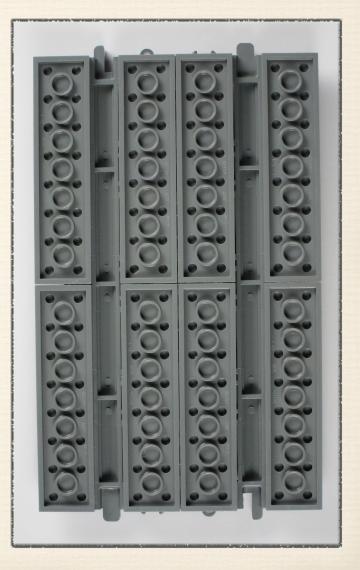All pieces that you add in the basic build will either be dark blue-gray, to match the track, or black.
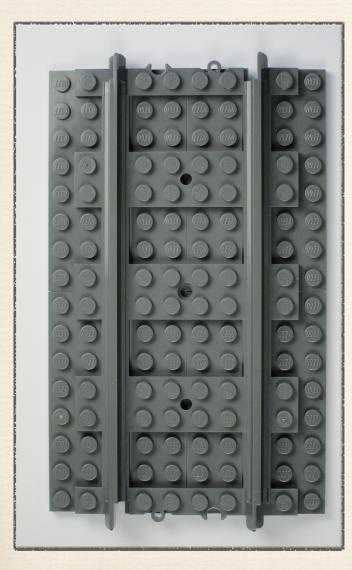
Straight Track – Step 2

Turn the track over. Add four 2 x 8 plates.

Straight Track – Step 3
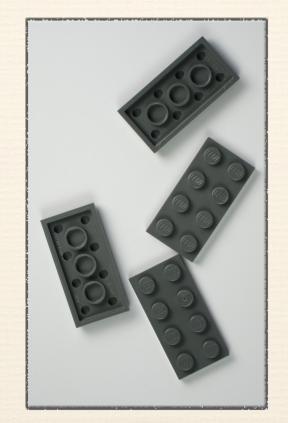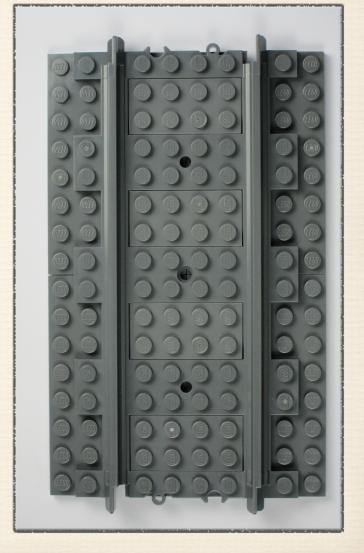
Add four more
2 x 8 plates.

Straight Track – Step 4
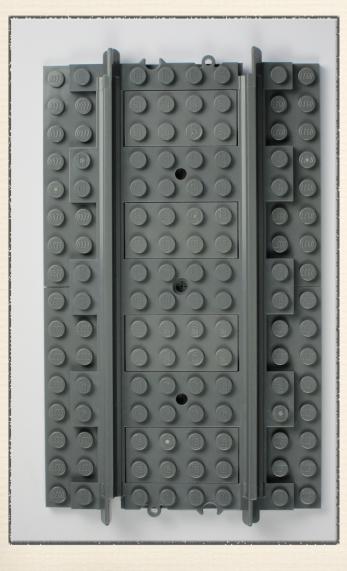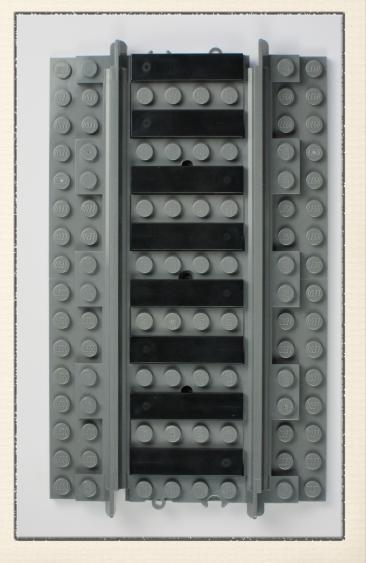
Turn the track right-side-up. Add four 2 x 4 plates.
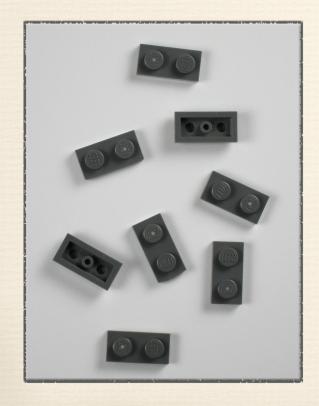
Straight Track – Step 5

Add ties: eight black 1 x 4 tiles.

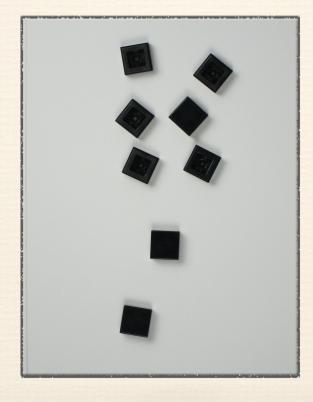# Straight Track – Step 6

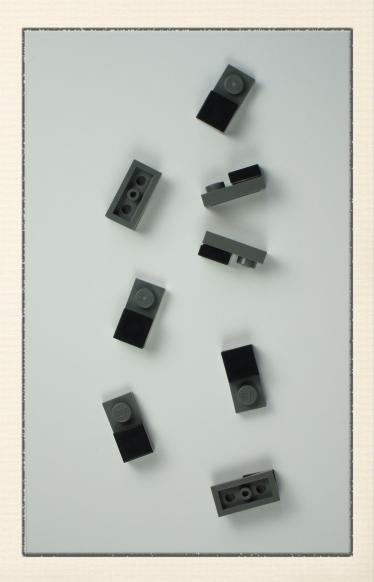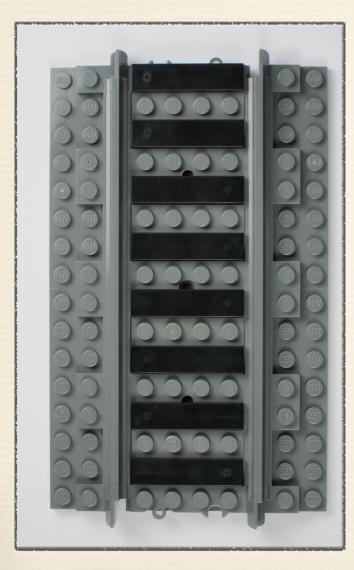The next step is easiest if done as a subassembly. Take eight 1 x 2 plates and eight 1 x 1 black tiles. Assemble as shown.
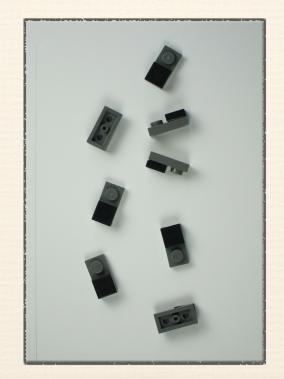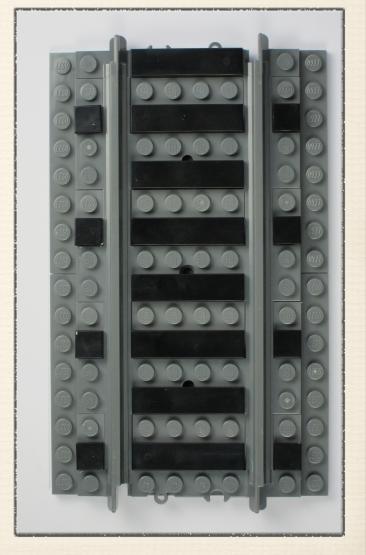
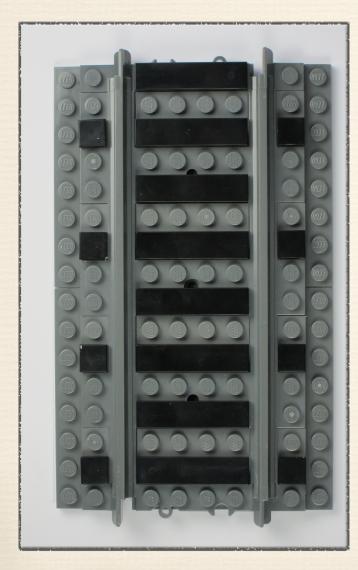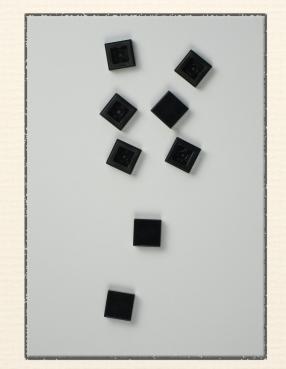# Straight Track – Step 7

Attach the subassemblies so the black tiles line up with the ties.
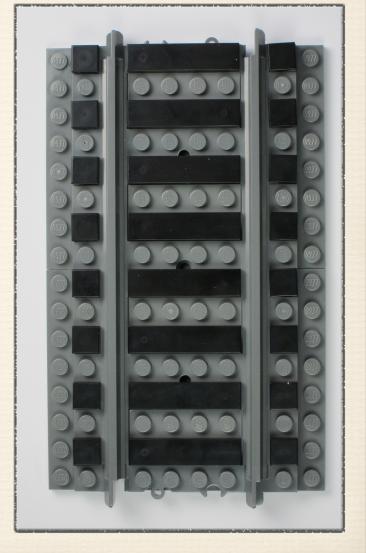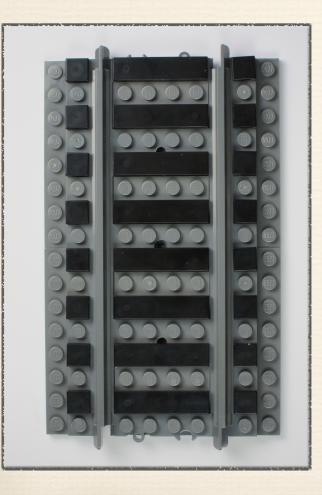
Straight Track – Step 8

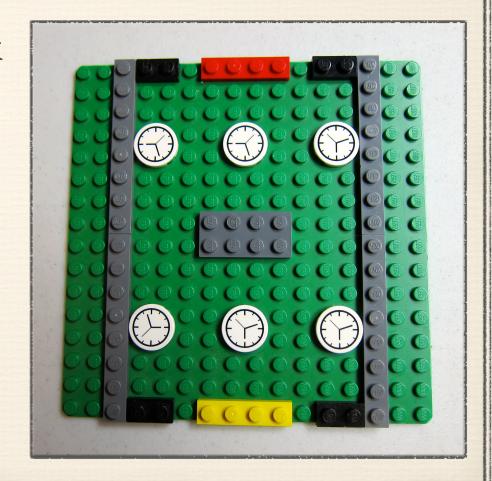Add eight 1 x 1 black tiles to complete the track section.

Prepare a baseplate

You'll have a line of plates around the edge, plus one in the middle, and extra tiles for support.

Now stick them together.

Done.

Labeling The Ends

There's a tie on every other row of studs. When I lay out the track modules, I don't want to accidentally put one tie next to another. So I use red on the end with a tie, and yellow on the end without a tie.
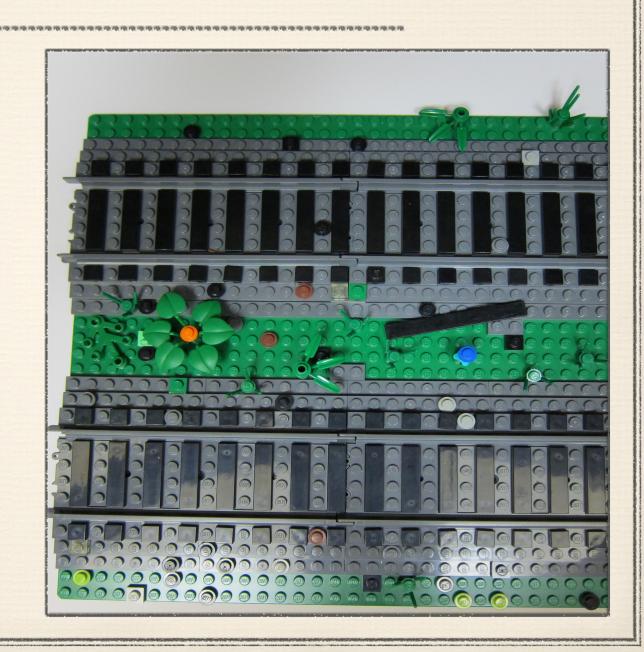
Now . . . make three more!

With four ballasted track sections, you can build one baseplate of double mainline.

That is the basic module for layout design.

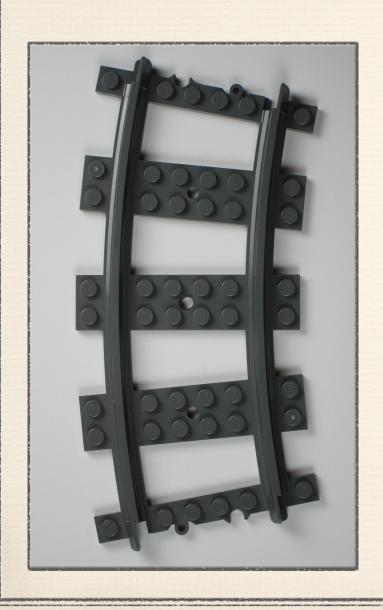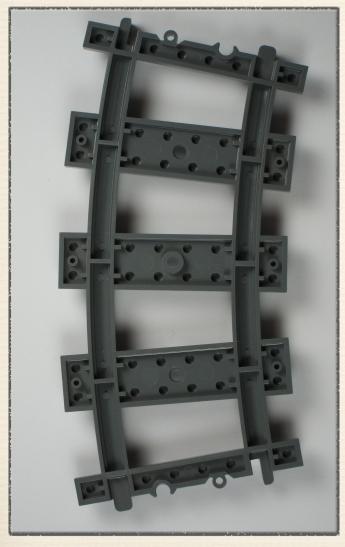But to build a full loop, you'll also need curves.

Curved Track Section

This will build one section of ballasted R40 curved track.

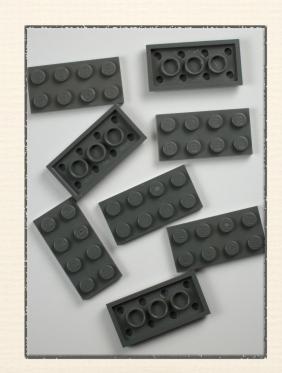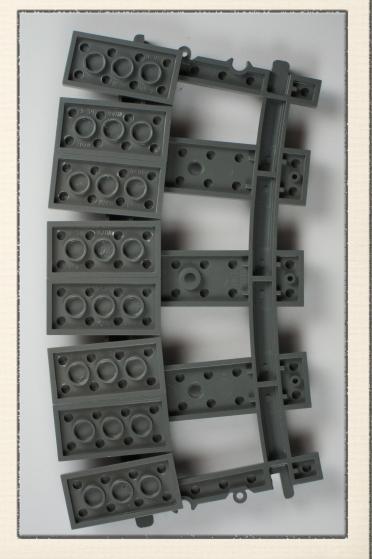It takes four sections like this to build one 90-degree curve.

Curved Track – Step 1

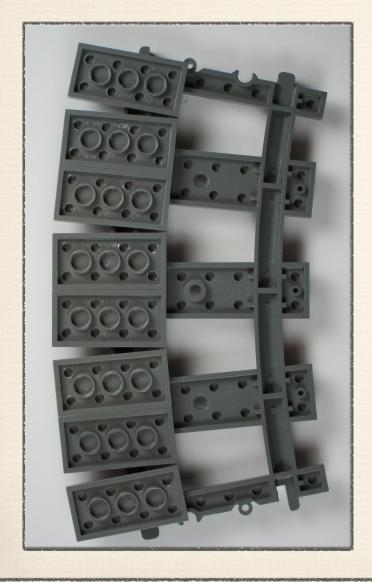Start with a curved track section.

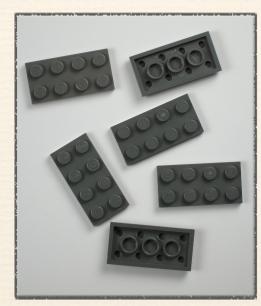All pieces that you add in the basic build will either be dark blue-gray, to match the track, or black.

Curved Track – Step 2

Turn the track over. Add eight 2 x 4 plates along the outer edge.
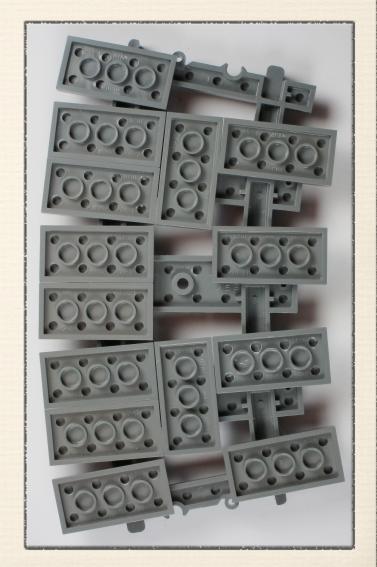
Curved Track – Step 3
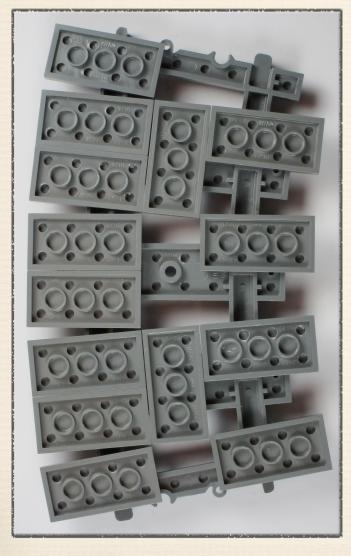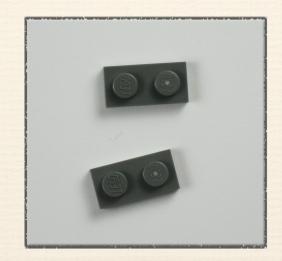
Add six more 2 x 4 plates – two in the middle, four along the inner edge.

Curved Track – Step 4

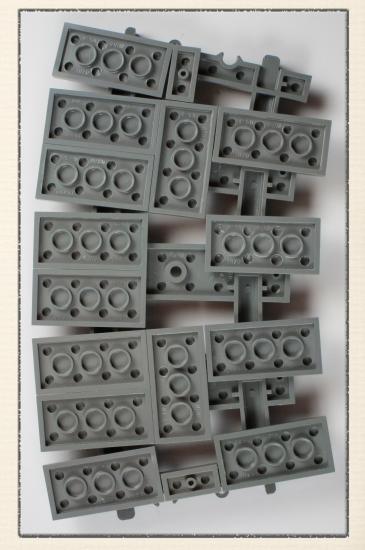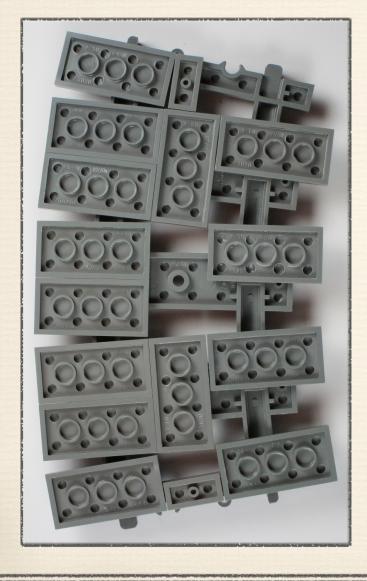

Add two 1 x 2 plates. They're in the middle, one at each end, one horizontal and one vertical.

Curved Track – Step 5
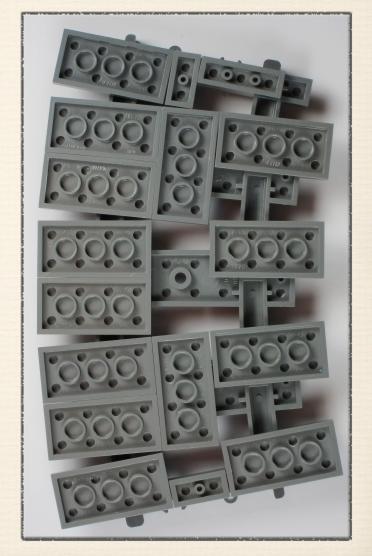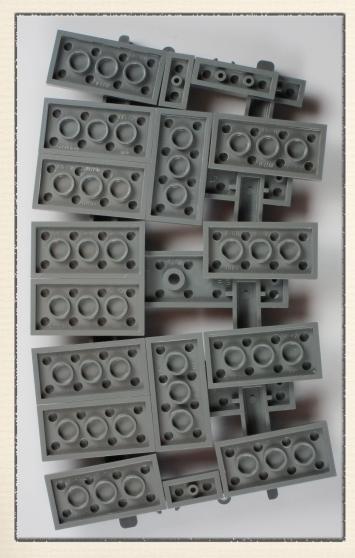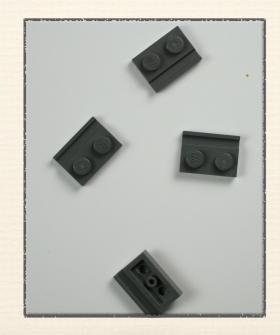
Add a single 1 x 3 plate at the top of the build, as shown.

Curved Track – Step 6
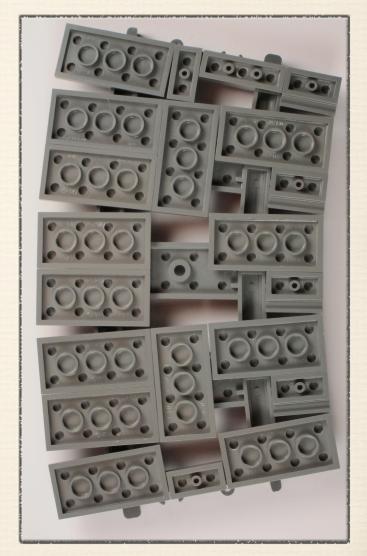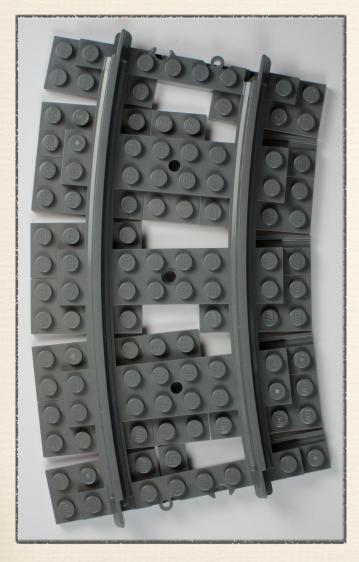
Add four door rails to the inside of the curve. The rail edge faces downward.

Curved Track – Step 7
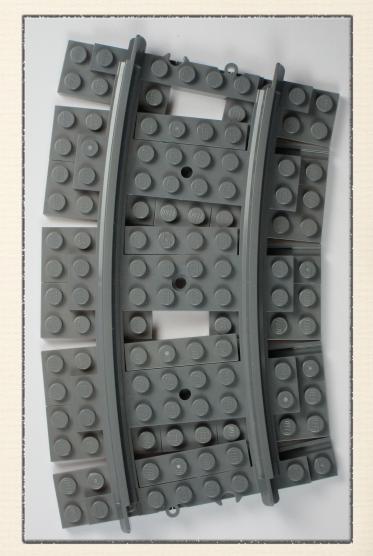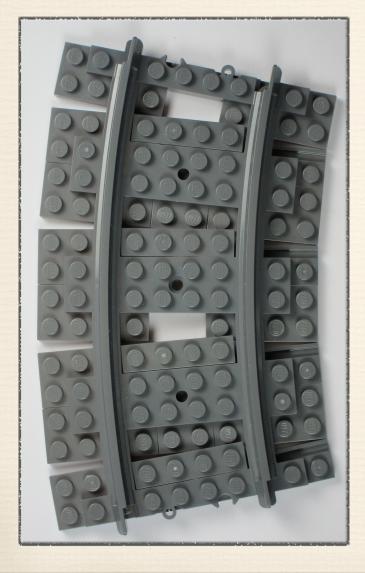
Turn it over. Add four 1 x 4 plates, one above each "tie" of the original track.

Curved Track – Step 8

Add four 1 x 1 plates along the outer curve, just inside the rail.

Curved Track – Step 9

Add four 1 x 4 tiles. Each is attached to a black plate and supported by tiles on the other end.

Curved Track – Step 10
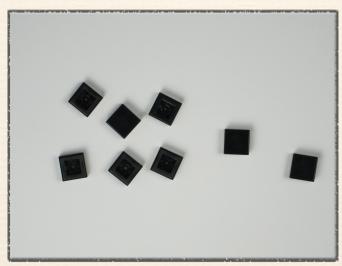
Add four more 1 x 4 tiles. Each of these attaches to four studs.

Curved Track – Step 11

Now take eight dark blue-gray 1 x 1 plates, and eight black 1 x 1 tiles, and create eight subassemblies.

Curved Track – Step 12
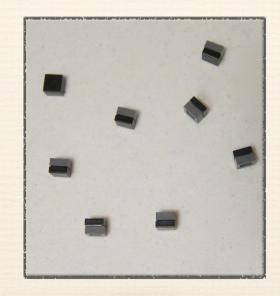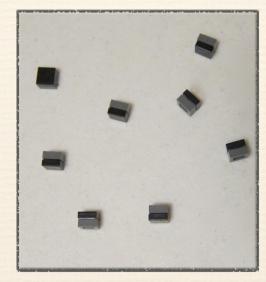
Starting at the top tie and alternating, put four subassemblies on each side.

Curved Track – Step 13
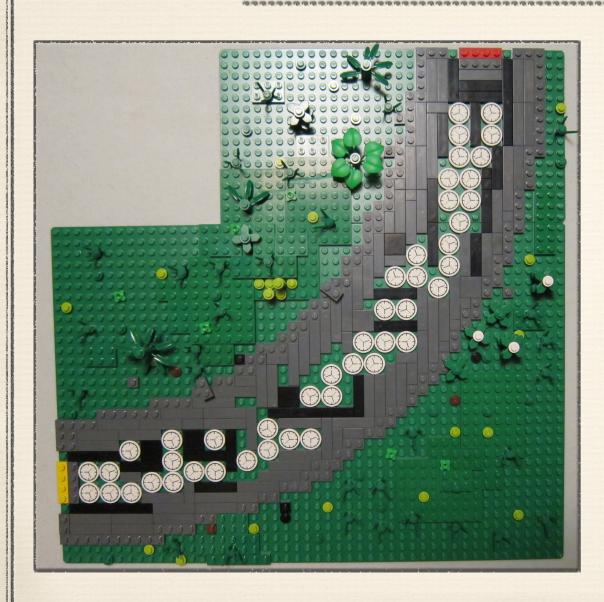
Now put four black tiles on each side to complete the other ties, and we're done.
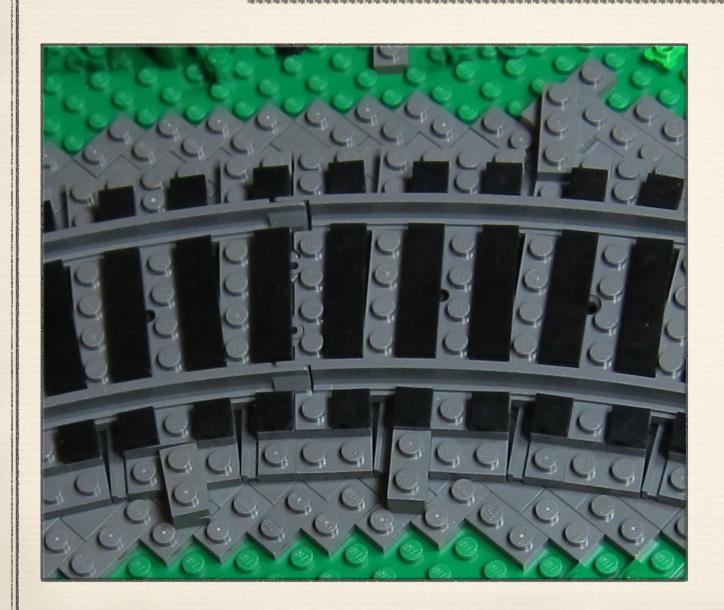
Curve Module Foundation

Four curved sections make a 90-degree curve. This is another basic module.
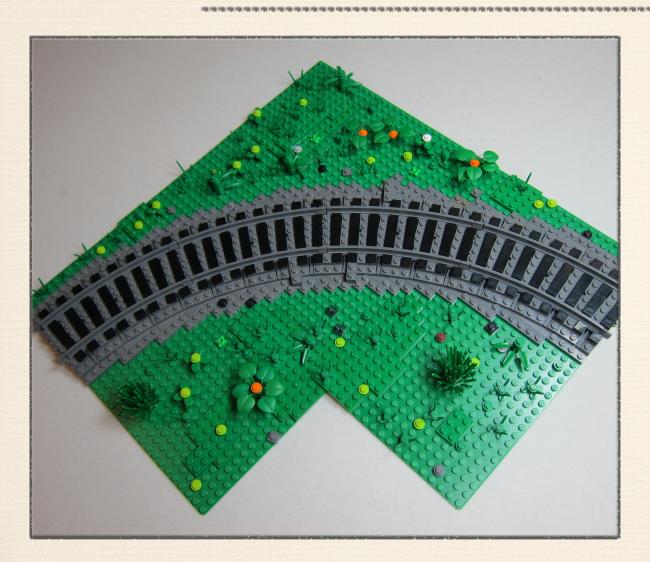
I don't use a pattern for the foundation. I use the curve itself as a template, put tile underneath to support it, and add an irregular line of plates at the edges.

Attaching The Track

There are natural stud connections only at the ends, but you can find places to tack it down in the middle.

Single Curve Module
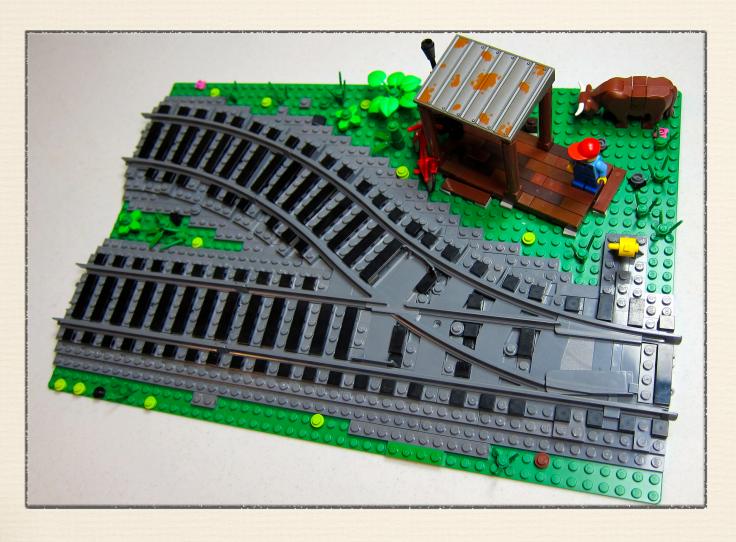
Completed, and dressed up with a few plants. You can go a lot farther with the scenicking if you want to.

Double Curve Module
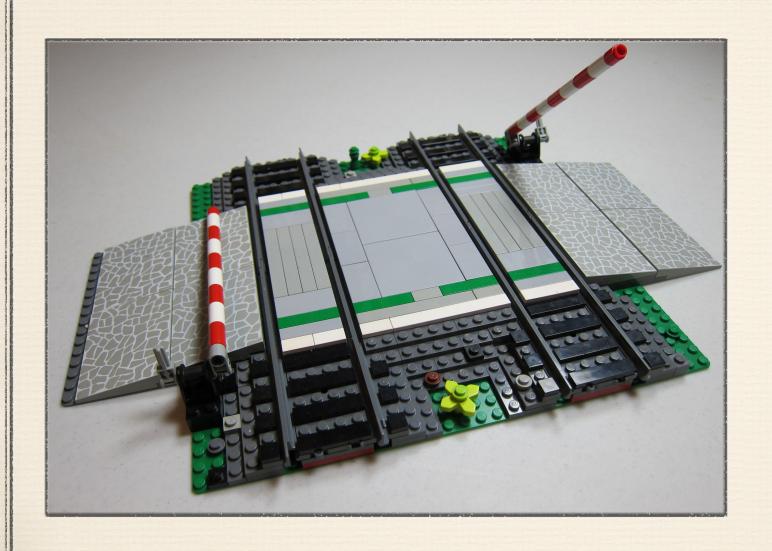
Eight curved sections, plus two straights, will make a 90-degree curve of double-track ballasted R40 mainline.

Ballasted Switch
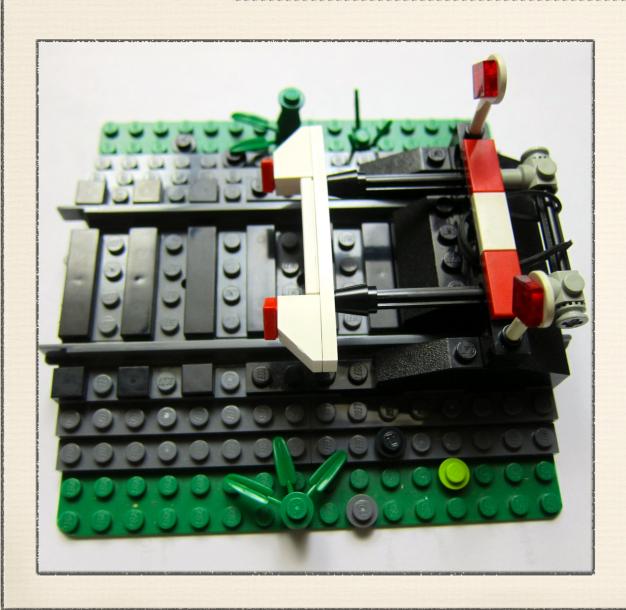
This took some time. It's easier if you are working with 9V track. The plastic switches don't seem to be quite as precisely molded.

Double-Track Level Crossing
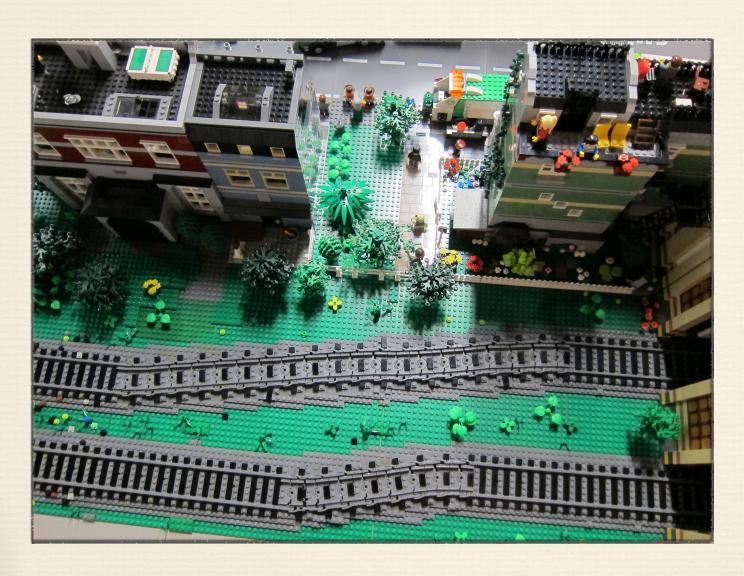
For when the track passes through a town, of course.

Ballasted Buffer

This is closely based on an Elroy Davis design published in *Railbricks* issue 7.

Ballasting Under Flex
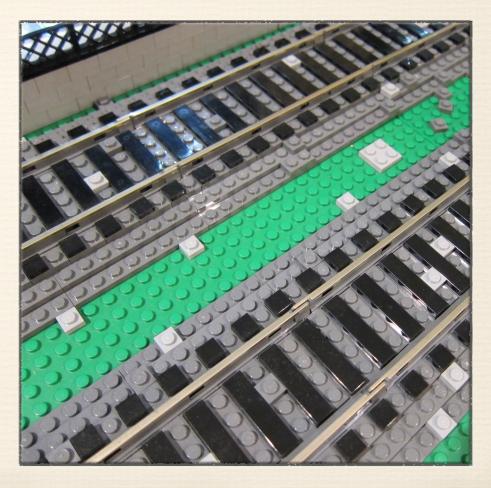
I'm not happy with the look yet, but it held together for a two-day show.

Other Ballast Styles

Do what you think is realistic
and attractive.

THE END

. . . or is it?

Acknowledgements

❖ **Cale Leiphart and PennLUG, for publishing their ballasting standard.**

❖ **Tony Sava, for his early advocacy of the idea "There's more to a LEGO railroad than just the train." Also for the better photos in this show.**

Acknowledgements
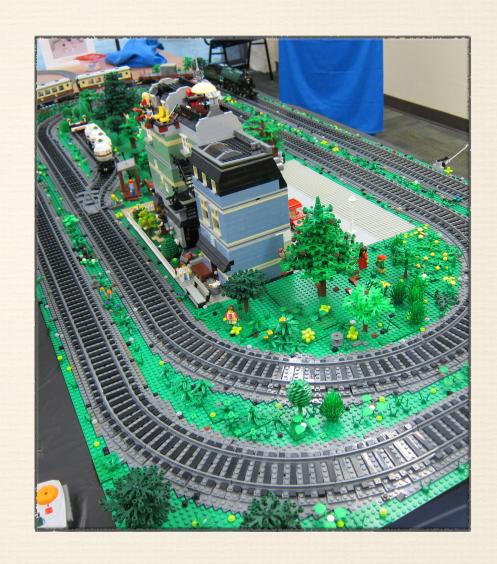
❖ **The many TexLUG members who made kind comments about my first experiments with ballasted track.**

❖ **Chris Du-Pond, for saying "You should do a slide show."**
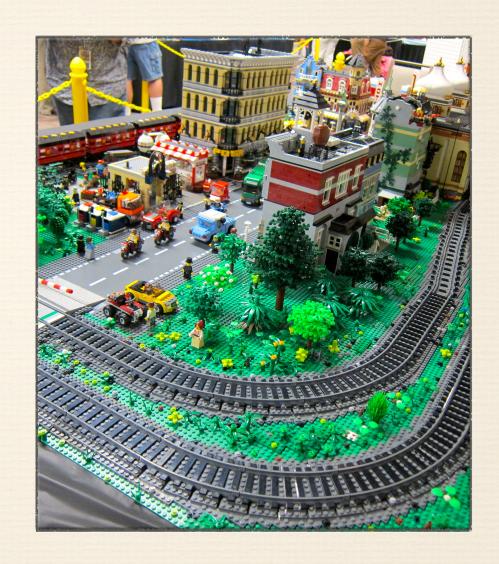
❖ **The staff of *Railbricks* magazine.**

Acknowledgements

- **Monica Stephens, for patient help in building track and boxes, and a really nice tweak to the bottom layer of the ballasted curve.**

- **The LEGO Group.**

- **My parents, for buying me LEGO many years ago!**

Technical Notes

❖ **This show was created and presented in Apple's Keynote '09, using the New Aster family of fonts.**

❖ **My own photography was done with a Canon PowerShot S95; Tony used a Sony Alpha. The photos were processed through iPhoto.**

Thank you!

Setup

* **Needs the mini display port to VGA adapter.**

* **System Preferences > Displays - click Detect Displays. Then arrange. In Keynote, if needed, Preferences > Slideshow > Present on Secondary Display**

A B C D E F G H I J K L M N O P Q R S T U V W X
Y Z
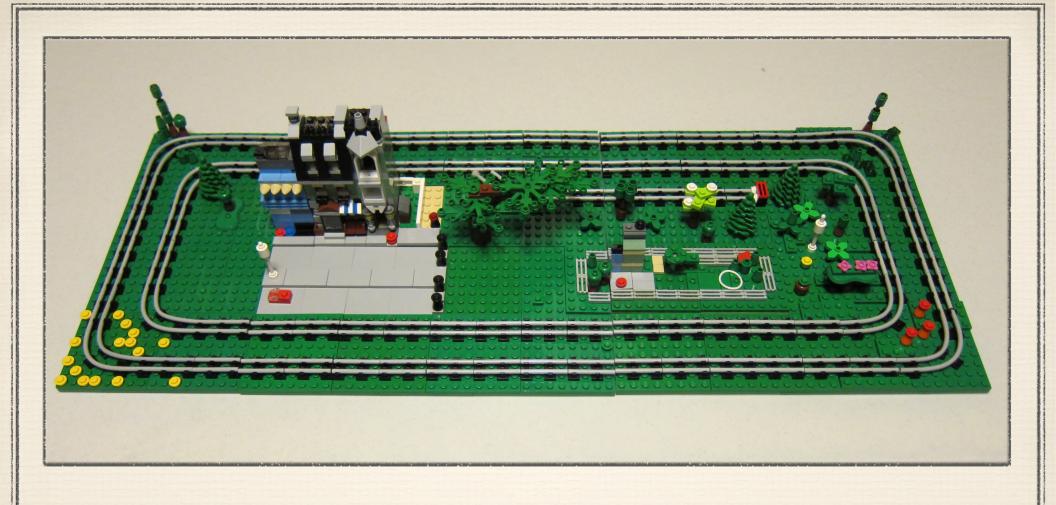
— Font: Type Embellishments

a b c d e f g h i j k l m n o p q r s t u v w x y z

1 2 3 4 5 6 7 8 9 0 - = _ + ! @ # $ % ^ & * ( ) ` ~

Aww, look at the cute widdle layout.