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# How I Built a Model Railroad In 30 Days

Mark Juett



Your 1<sup>st</sup> Choice

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Model railroad design and construction, all scales, any period, all aspects.

# History

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- 6 degrees of separation

# Specifications

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- 1890's
- O scale
- Narrow Gauge
- Western US
- Winter
- Automated Display with animation
- Town, country and mountains

# Time Line

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- Discussions in late October
- Delivery December 1, 2015

# Bench-work

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# $\frac{3}{4}$ Plywood Top

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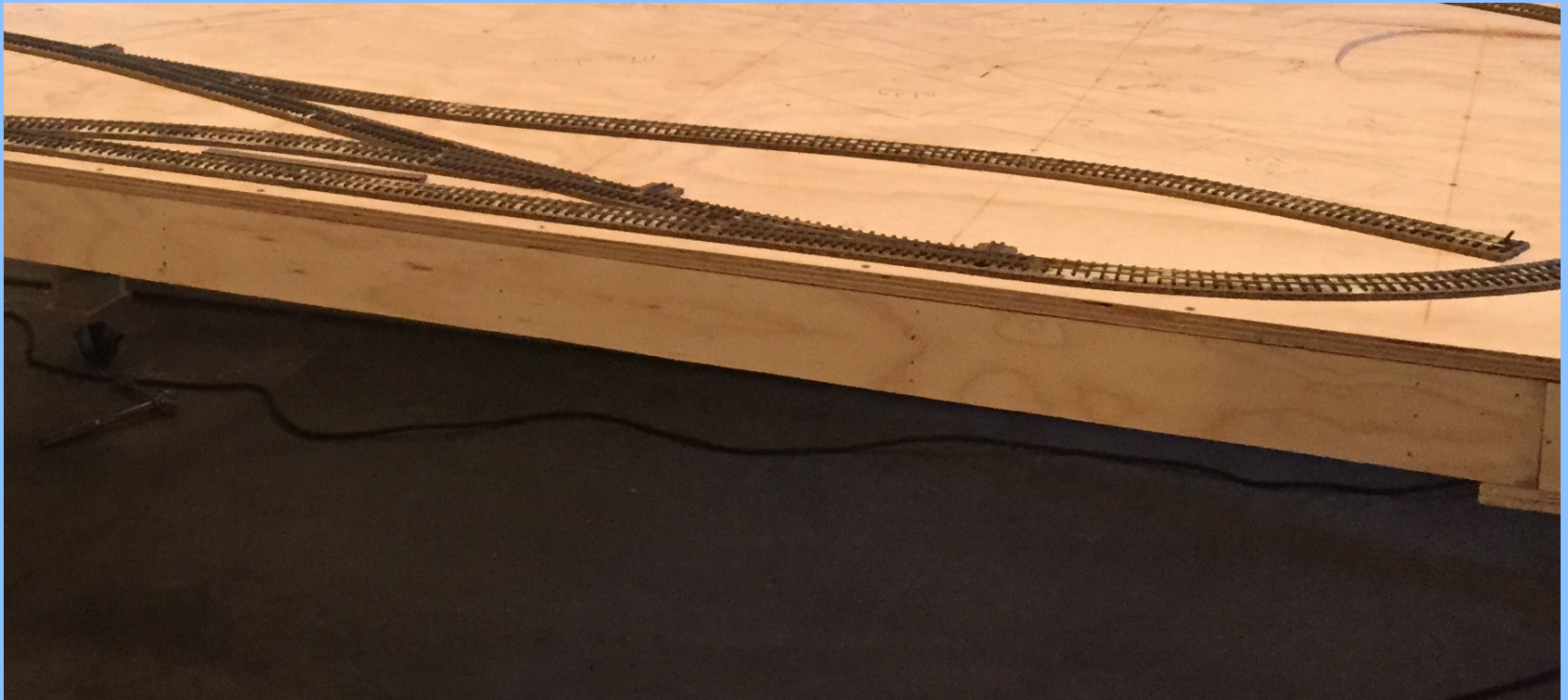
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# Track & Roadbed

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# Track is Scenery



# Ballast

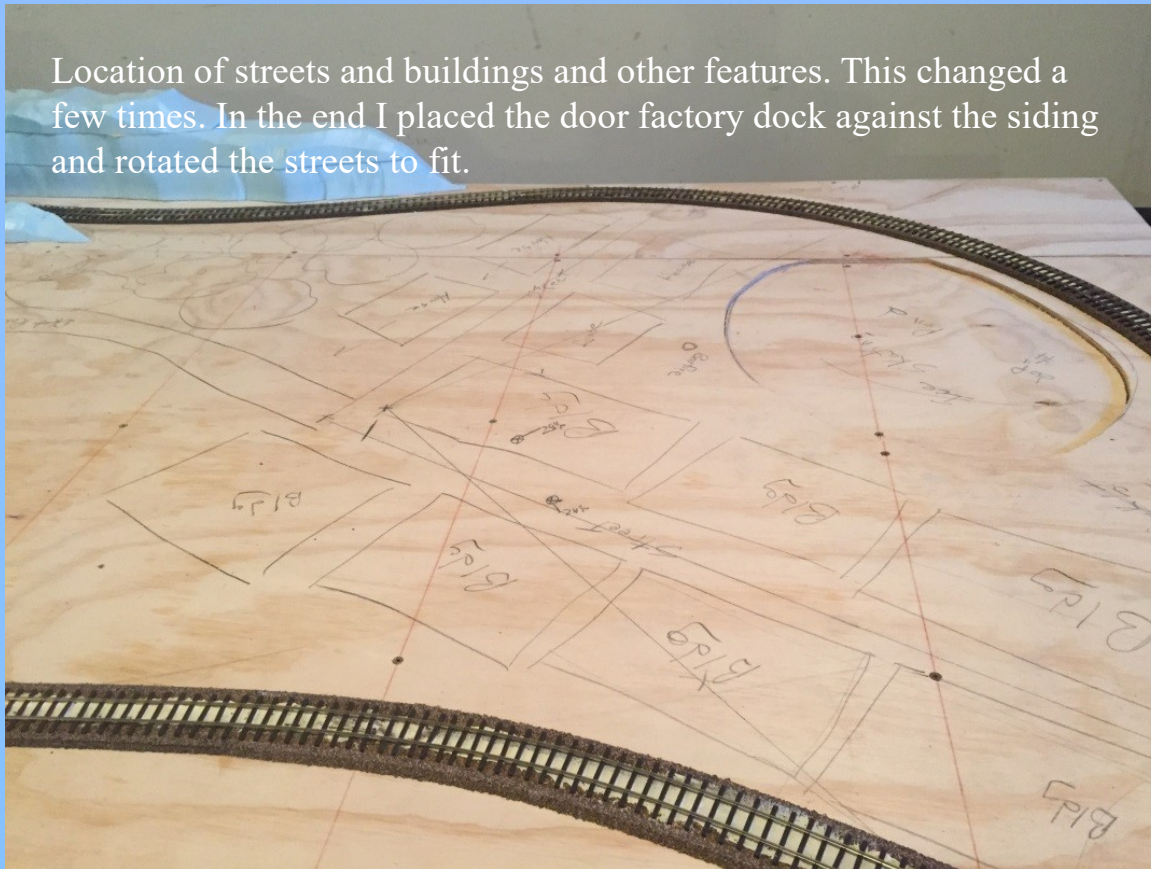
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# Planning

Location of streets and buildings and other features. This changed a few times. In the end I placed the door factory dock against the siding and rotated the streets to fit.



# More Planning

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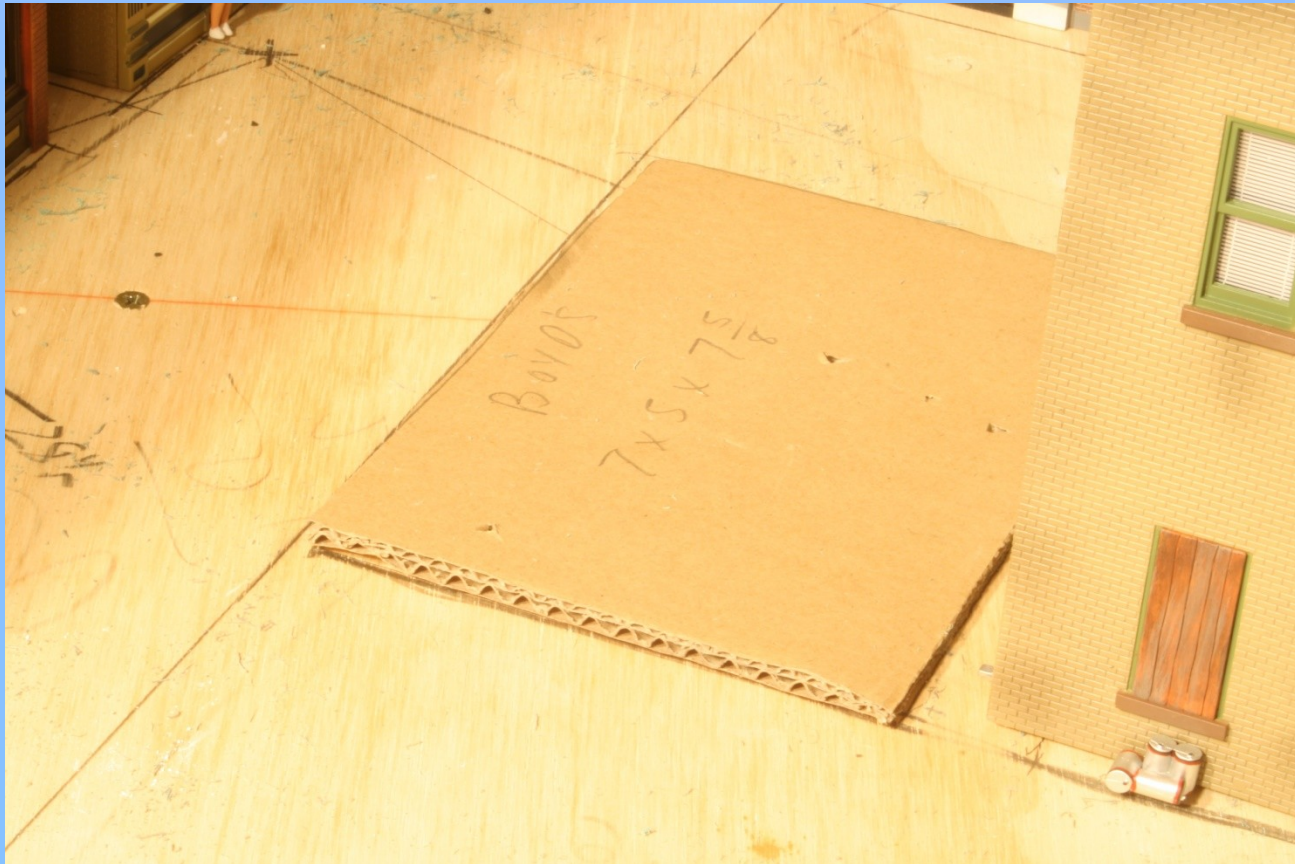
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# Footprint

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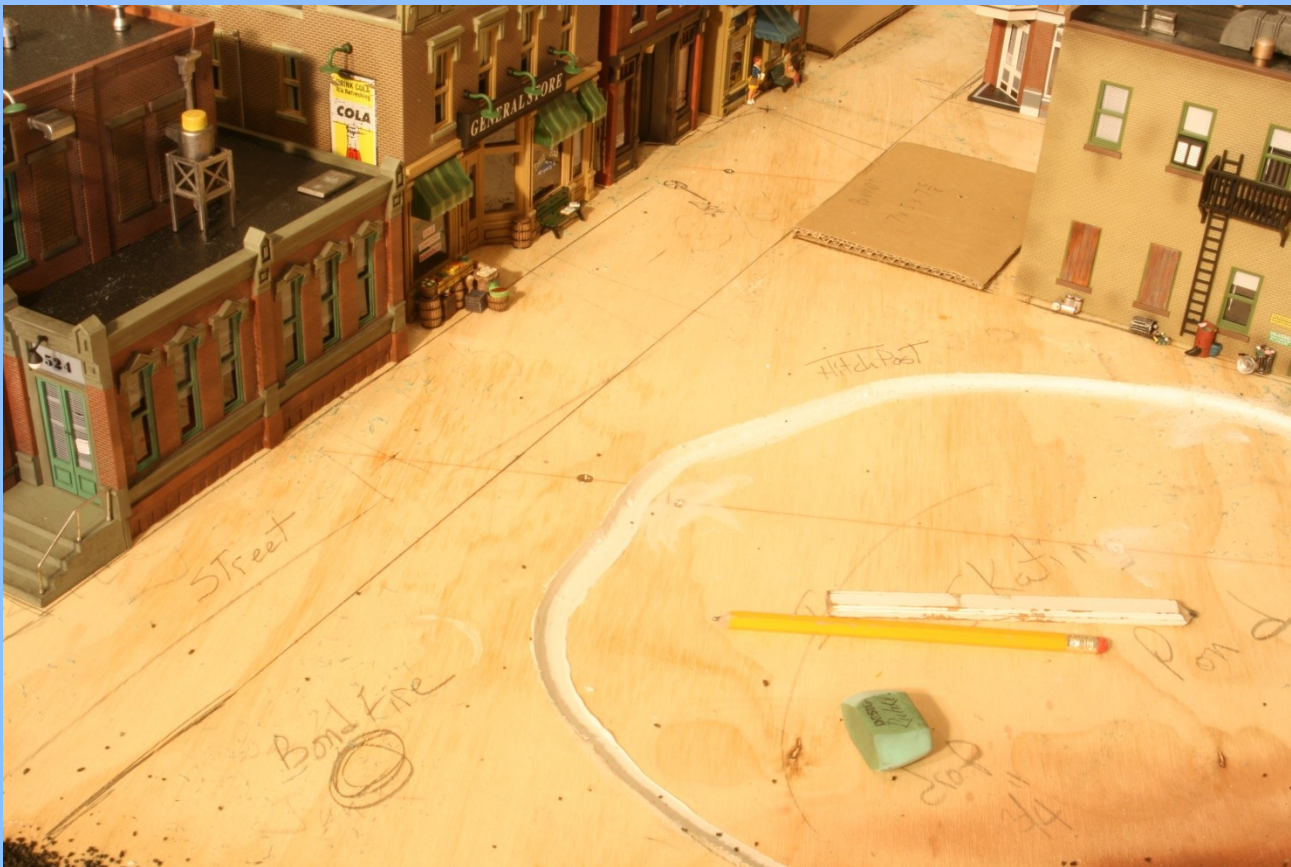


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# More Planning



# Organization

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# Hills

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Hills were needed for this model.

They added scenic interest and hid the train for a portion of the run.





# Convertible?

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Removing the top during construction made work easier.



# Ahhh Plaster

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Nothing says scenery like a good plaster mess.

# Rock Castings

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Molds from Bragdon, Woodland Scenic and an unknown supplier were used.

# Rock Coloring

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Acrylic paint was use to color the rock castings, Payn's grey, natural gray, warm gray and burnt umbra.

# Let It Snow

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# Roads & Trees

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# More Trees



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# Deciduous Trees

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# A town appears

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# Structures

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- Woodland Scenic Assembled Structures
  - Great detail
  - Interior Lighting
  - Interior details
  - Chosen because time was short

# Period Correct Details

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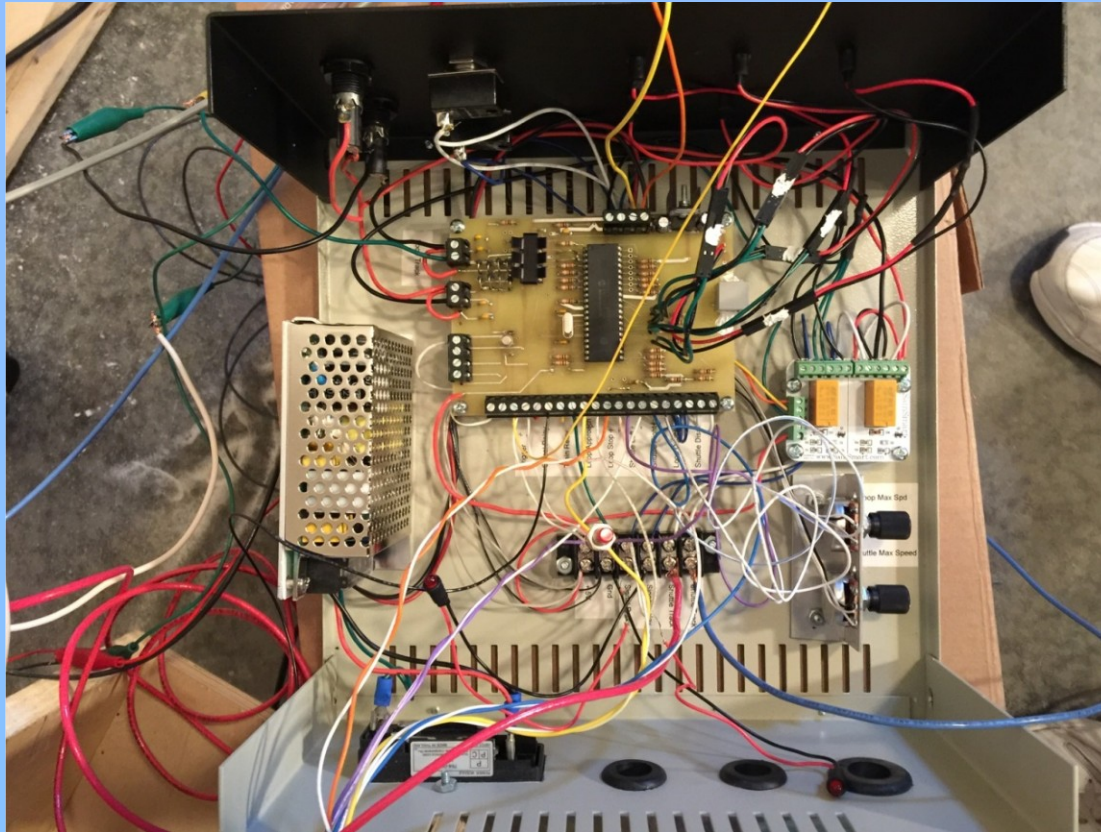


- Removed
  - Electric meters
  - Electric lights
  - Trash dumpsters
  - Modern signs

# Micro Controller

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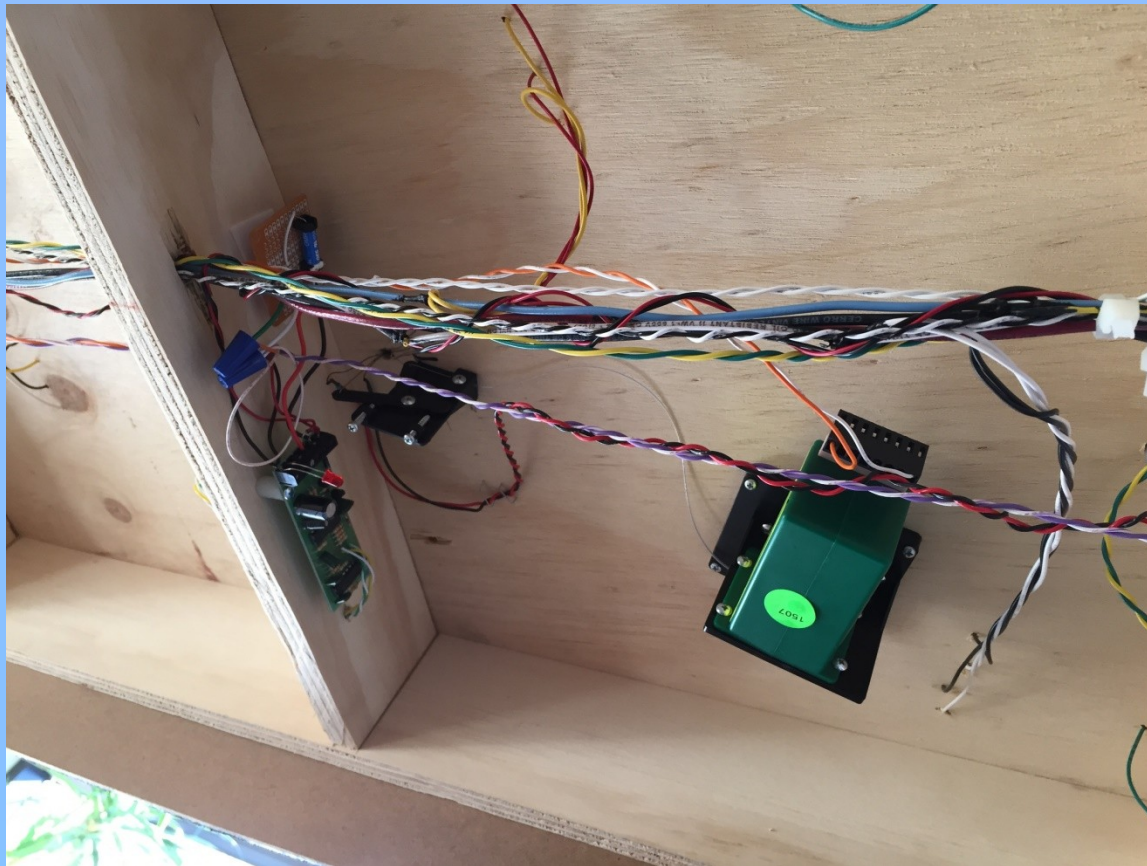
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# Wiring

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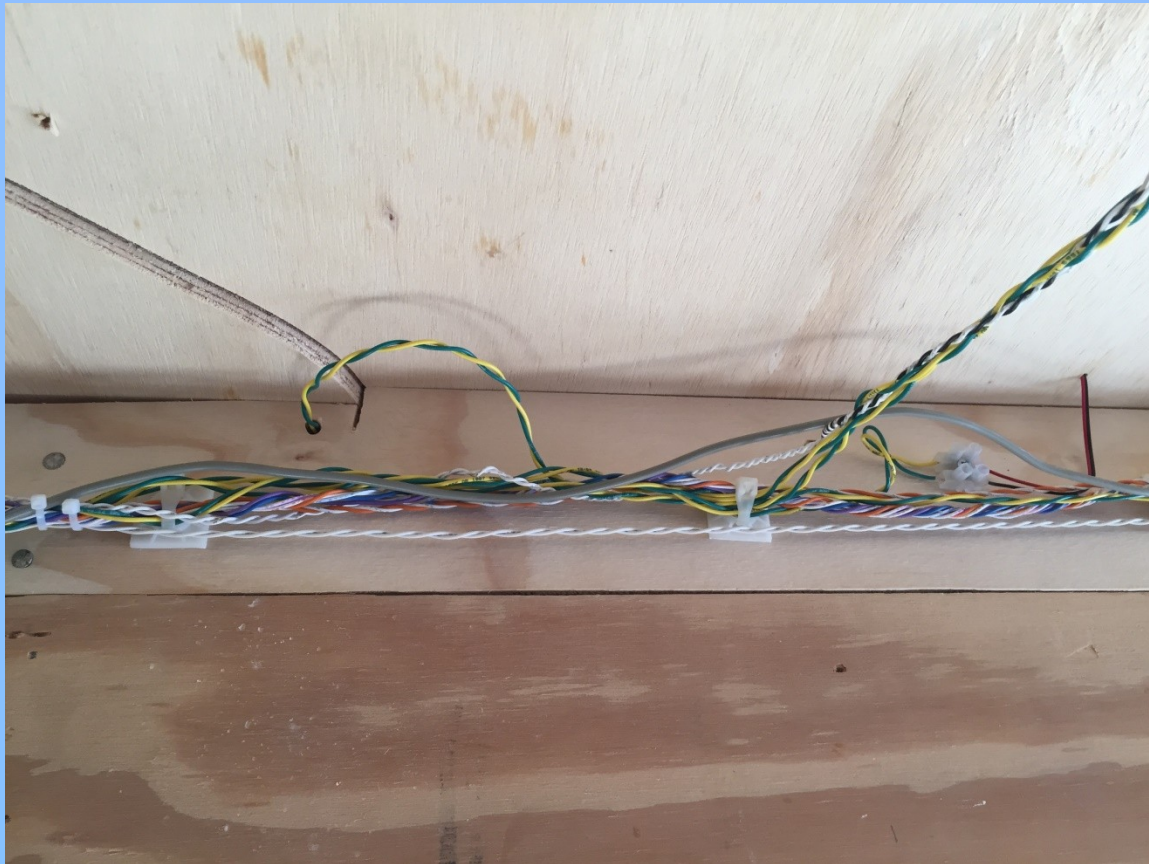
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# And Wiring

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# And Wiring

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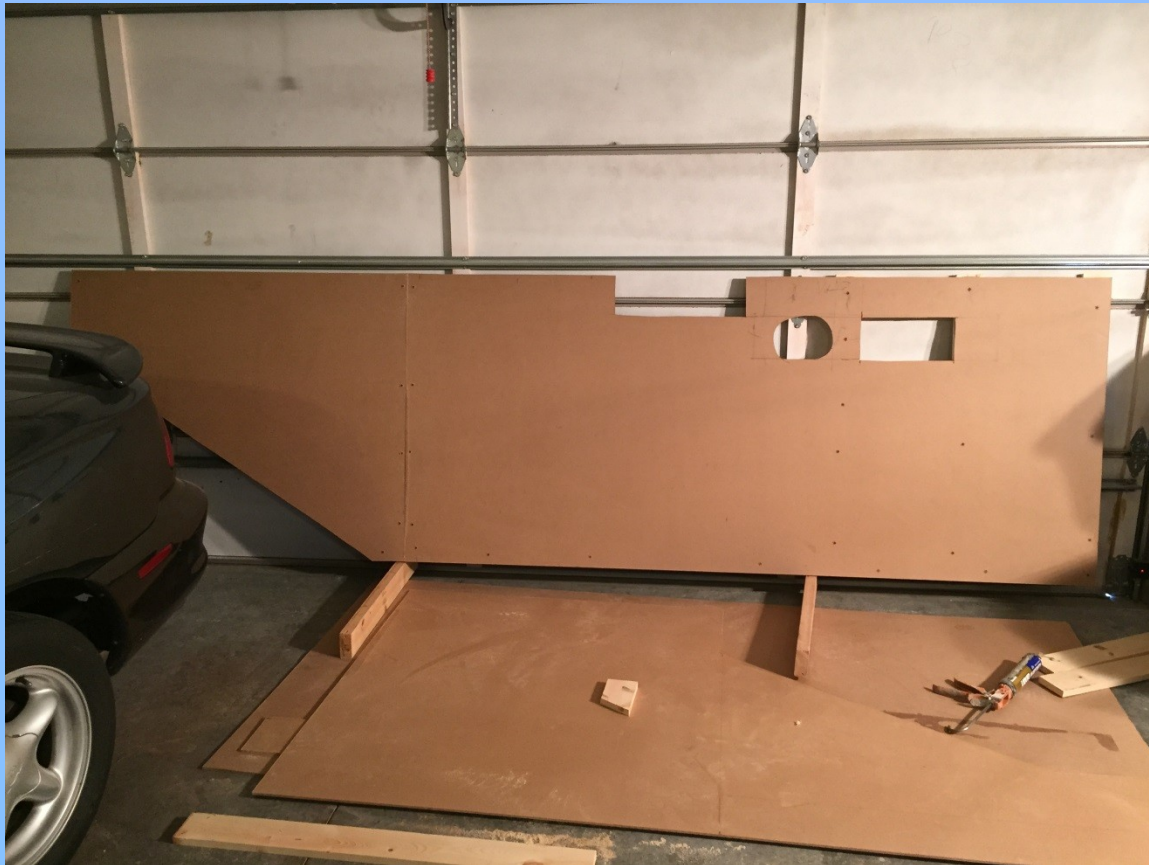
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# Backdrop

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# Backdrop

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# Skirting

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# The Unexpected!!!

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# Garland?

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# People & Animals

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# Mini Scenes

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# Tell a story

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# Where are they going?

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# Dr. Hook's Med Show

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# The Crew Is Ready

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# Coworkers on dock

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# Action

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# Action



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# Animation

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- Sound
  - Crowds
  - Honkey-Tonk
  - Locomotives Bachman DCC sound equipped
- Lights
  - Buildings on/off/on
  - Bonfire
- Operating Semaphore

# Custom Lettering

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# All Aboard!

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# Lessons Learned

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- Estimate Resources Needed
- Time Line (hours of construction)
  - What is needed to complete within time frame
- Use Proven Products When Time Is Short
  - Ballast
  - Water
- Preassembled Structures

# Experimentation

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# Credits

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- Josh Slugantz
  - Carpenter assistant
- Lee Hover
  - Micro Controller
- Paul Evans
  - Sound & lighting
- Paul Myers
  - Building construction, wiring, track
- Marty Vaughn
  - Custom Ice Skating Figures
- Paul Meers & Paul Carrington
  - Loading

# Thank you

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Any questions?