STRUCTURE LIGHTING USING LEDs

An Overview of How I Wire Up LEDs In My buildings

What we'll be going over:

- Photos of a few of the buildings on my layout that are lighted
- The materials I use to light the buildings, including:
  - LEDs
  - Power Supplies
  - Wire
  - Power Distribution Blocks (Terminal Blocks)
- How I wire up the components
- How I run the power to the buildings
- Typical ways I install the LEDs into a building

A Few Of The Lighted Buildings On My Layout

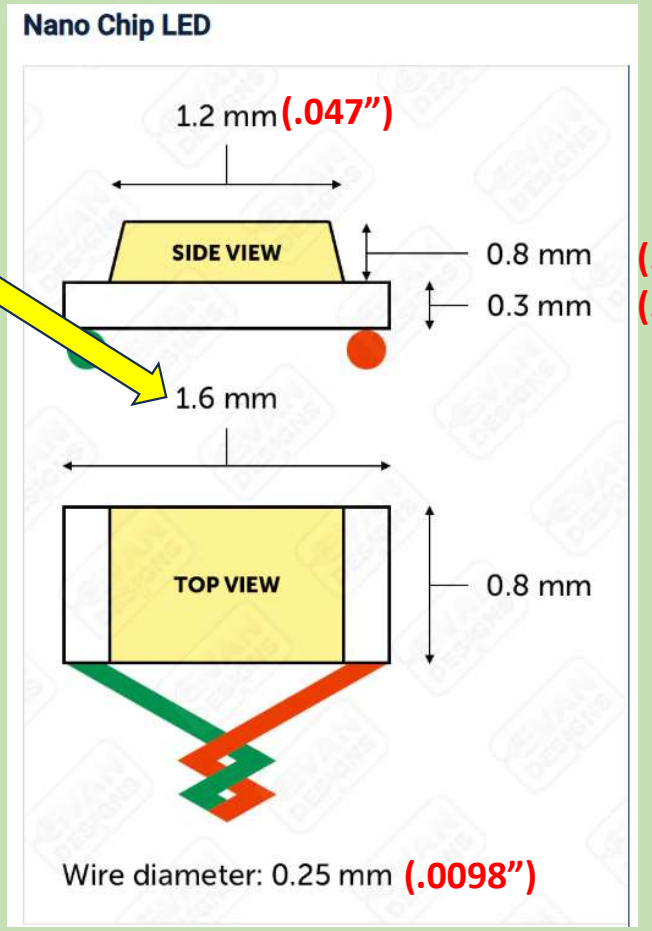
Materials: LEDs

.02”	.039”	.063”	.126”	.138”	.197”	.197”	.118”	.071”

Price each:	$2.25	$2.25	$2.35	$2.25	$2.50

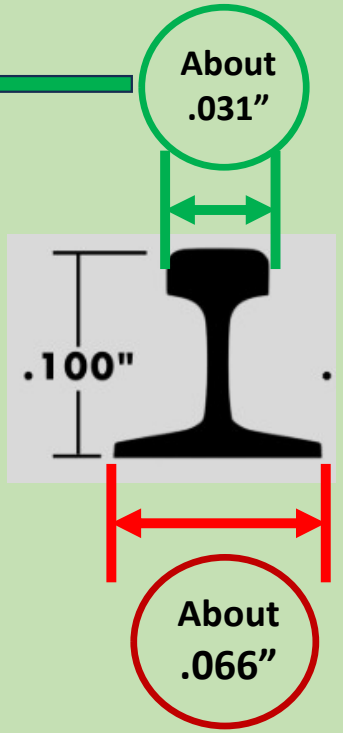
Dimensional Comparison of An Evan Designs
NANO LED to Atlas Code 100 Track

(.063")

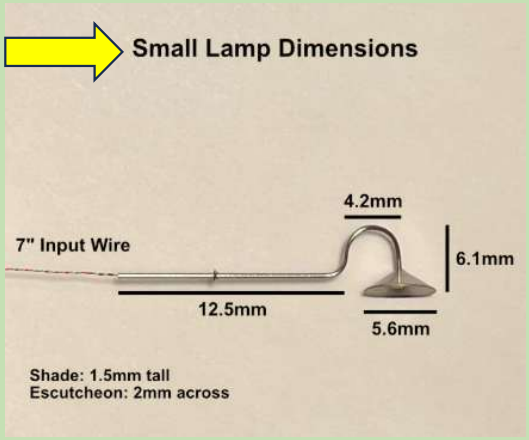


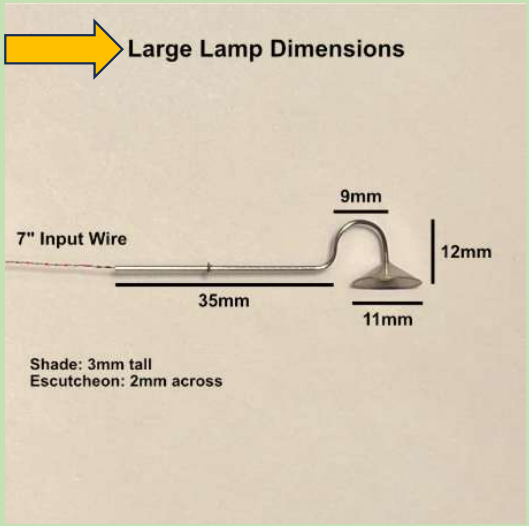
(.031")
(.012")

As Compared to
Atlas HO Code 100 Track



Materials: Evan Designs Goose Neck Lamps



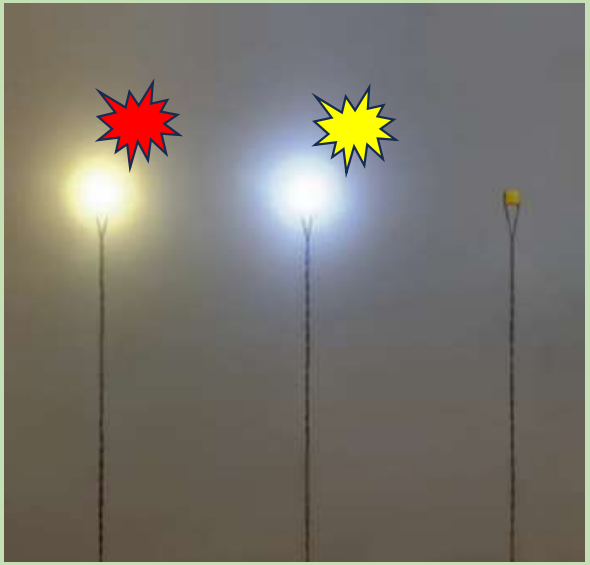


Materials: LEDs – Voltage

- The Evan Design's LEDs come in three different voltages:
  - **3 Volt** DC (this is the one I exclusively use)
  - **5-12 Volt** DC
  - **7-19 Volt** AC/DC/DCC*
- Their LEDs come Pre-Wired in the following lengths:
  - **8 inches** (this is the length that I use)
  - **14 inches**

*	Your own AC/DC or DCC supply: 7-19V
	7-19 volt Universal AC/DC/DCC lights are already set up are already set up with a resistor and rectifier for your power supply, AC or DC from 7-19 volts.

Materials: LEDs - Colors



- **EVAN's** also offers other colors

Warm White – I mostly use this one

Cool White – I've used this color as well

Materials: Power Supply

2 Amp: $14
1 Amp: $12

3-Volt Power Adapter/Transformer

Select Power / Select switch / No battery

★★★★★ 80 reviews

Powers up to 100 3V LEDs

Power

Select Power | 1 Amp | 2 Amp (+$2.00)

Switch

Select switch | No switch | with On/Off switch (+$2.00)

Battery Option

No battery | Battery pack (+$2.50)

JP2

Materials: Wire

LED with pre-attached wire ∅ 0.14 - 0.25 mm (0.0055 – 0.0098”)

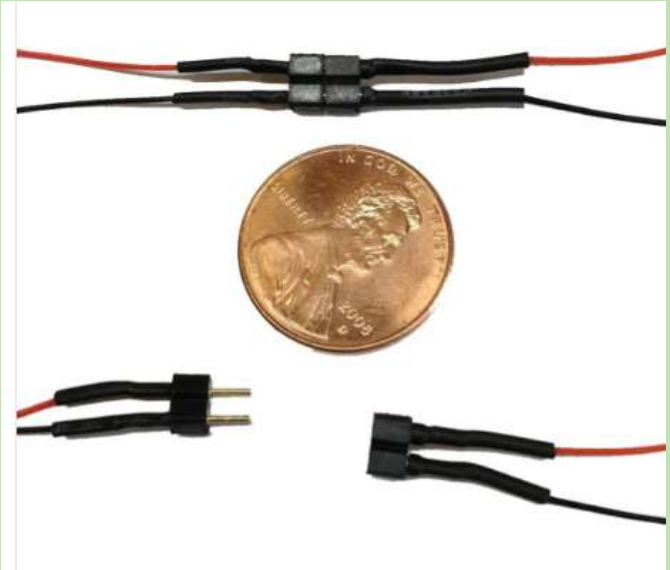
28 AWG Solid Wire

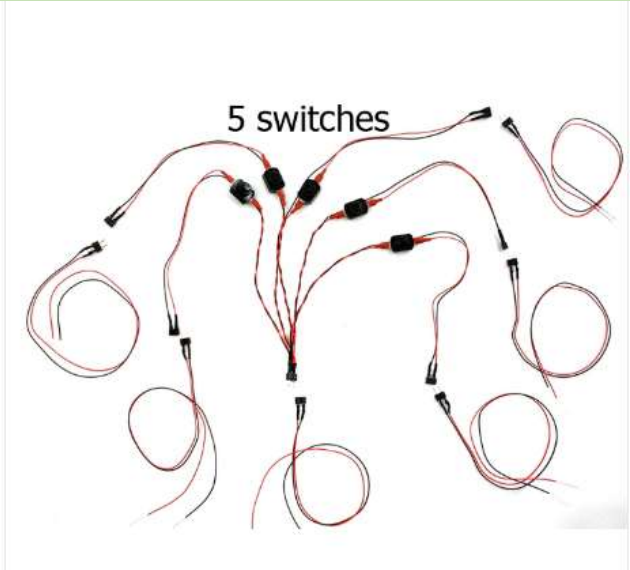
22 AWG Stranded Wire

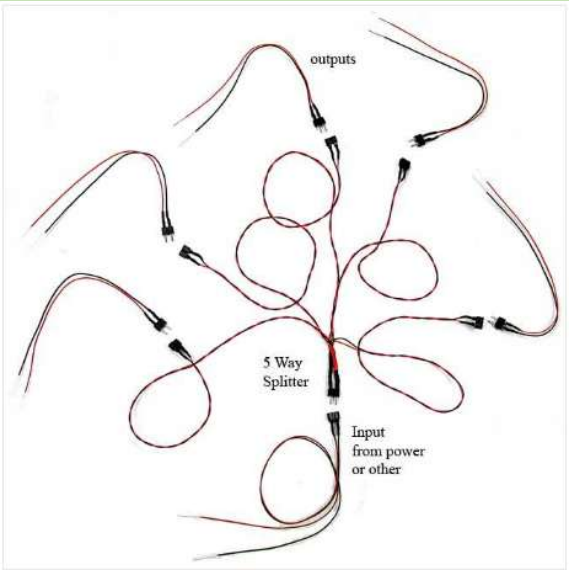
Slide 10

JP2 Julia Post, 3/3/2025

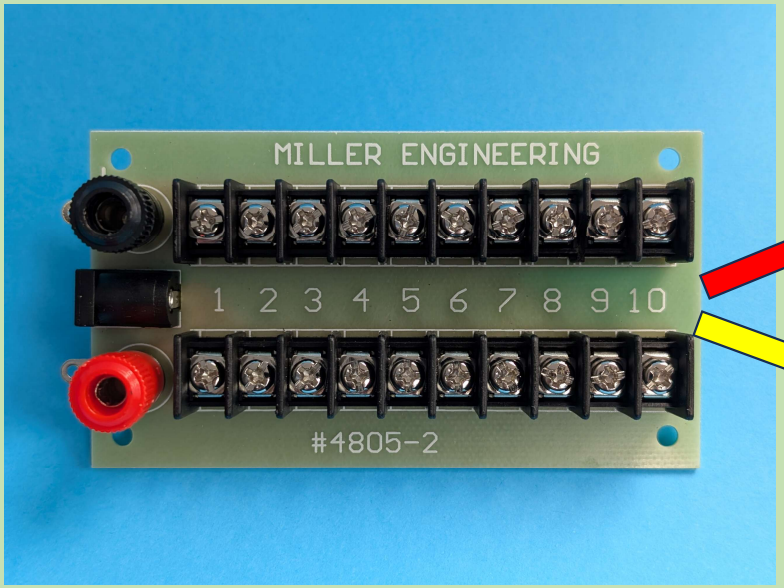
Materials: Connectors, Etc.



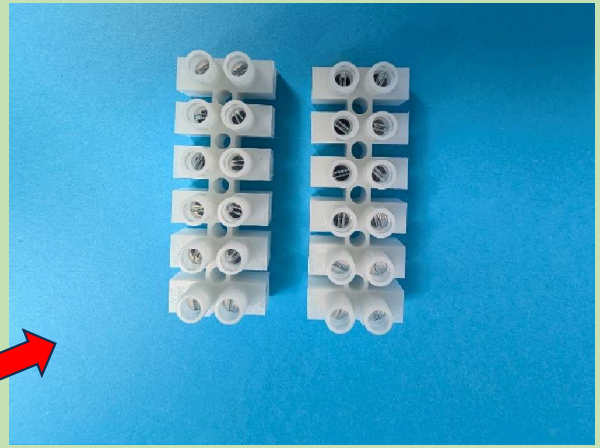




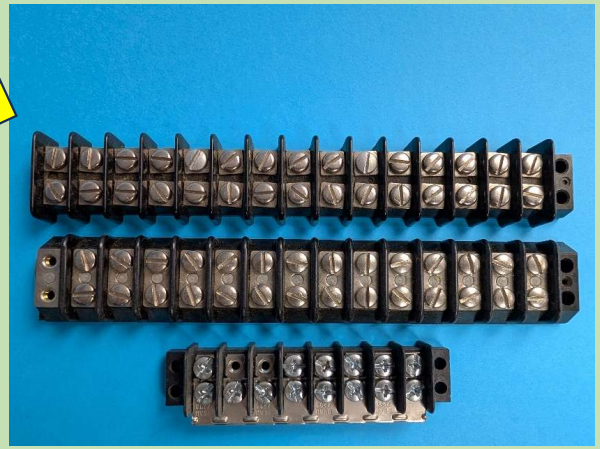
Materials: Power Distribution Blocks & Terminal Strips



Miller Engineering
Power Distribution Block

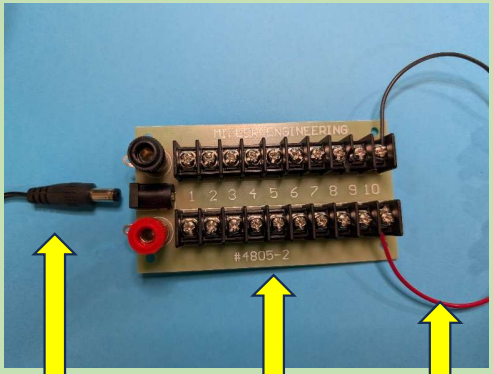


European Style
Terminal Strips
(I use this style.
Thanks Scott!)



Various Other
Terminal Strips

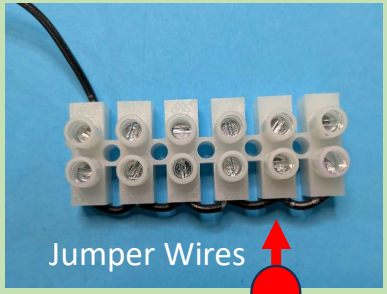
Visual Diagram of Running Power to Buildings

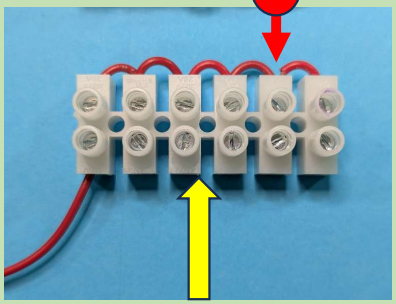


Evans Design **3V** Power Supply

Miller Engineering Distribution Block

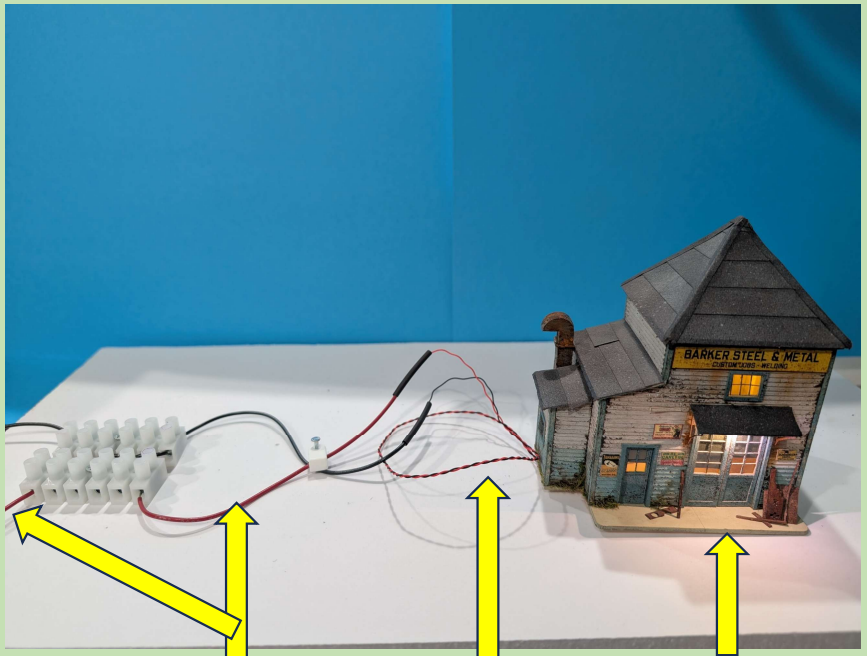
22 AWG Wire





Terminal Strips

I use 22 AWG Wire for the **Jumper** Wires



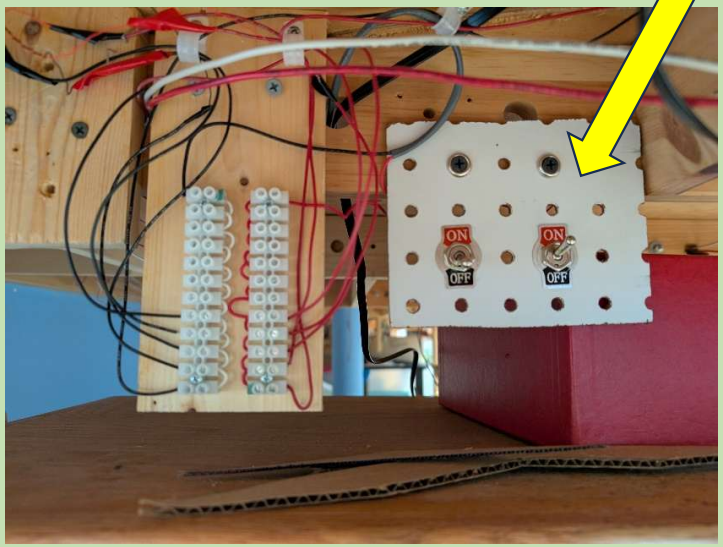
22 AWG Wire

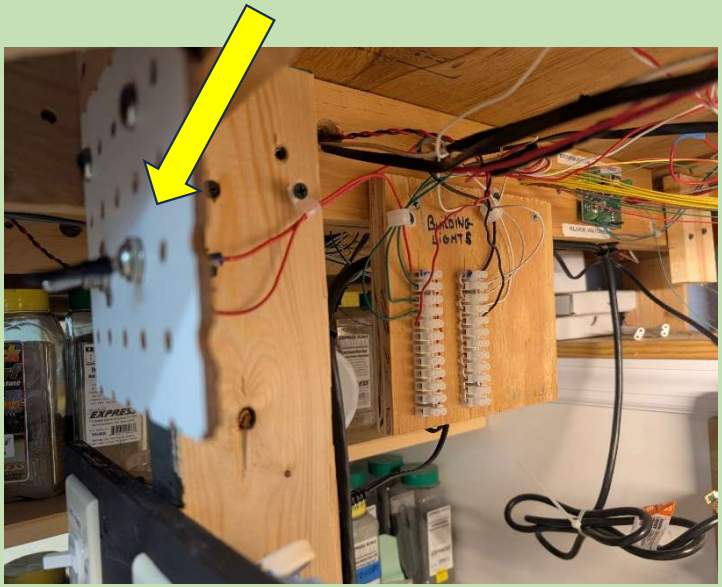
Evans Design **28** AWG Wire

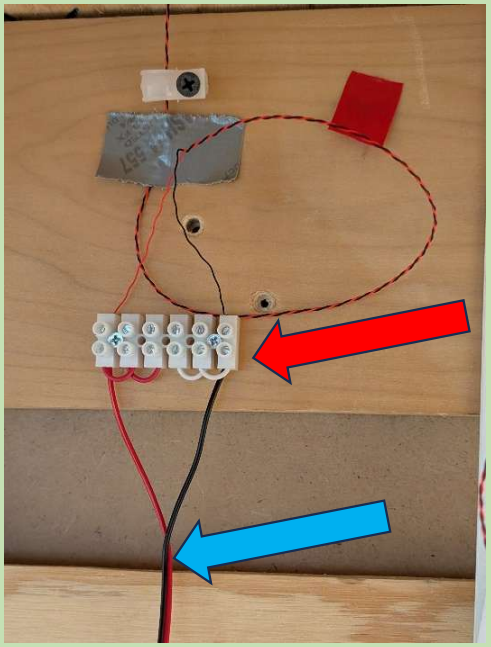
Evans Design LEDs

Under The Table Control of Power to Buildings:

ON/OFF Switches





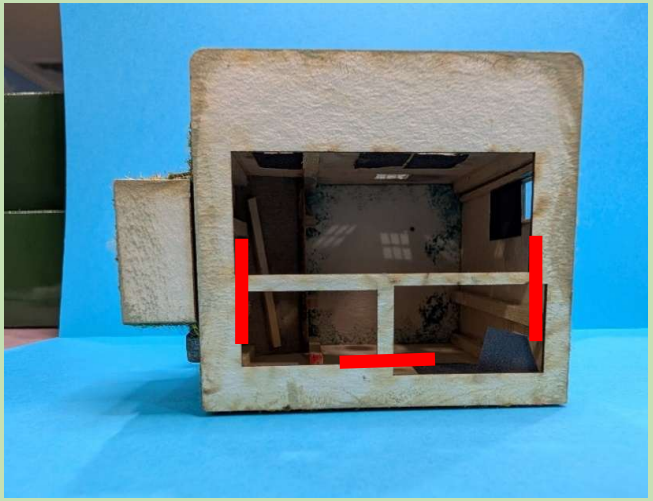


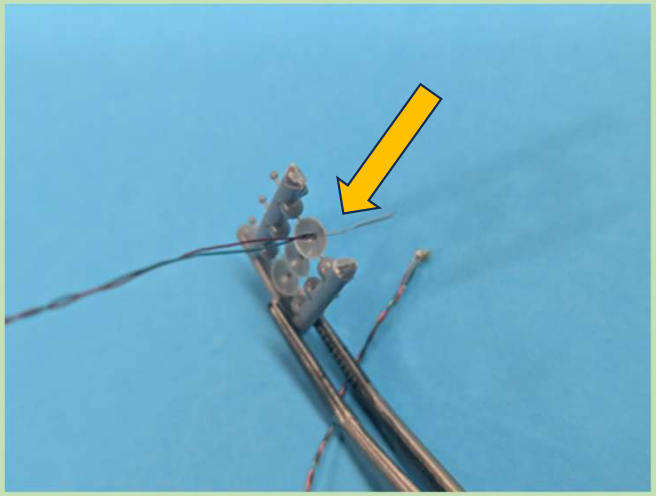
This strip currently shut off at power supply

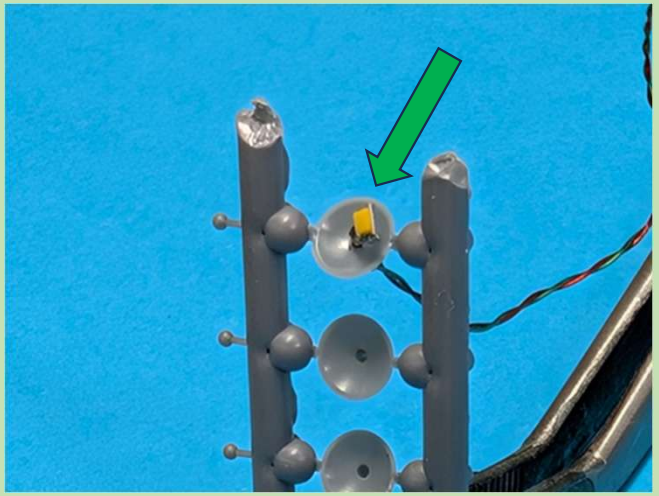
Wiring LEDs Into Buildings

- **Wiring a Small Pre-Built Building: #1 and #2**
- **Wiring a Large Pre-Built Building: #1 and #2**
- **Wiring A Building And Adding An Interior Room While It's Being Built**

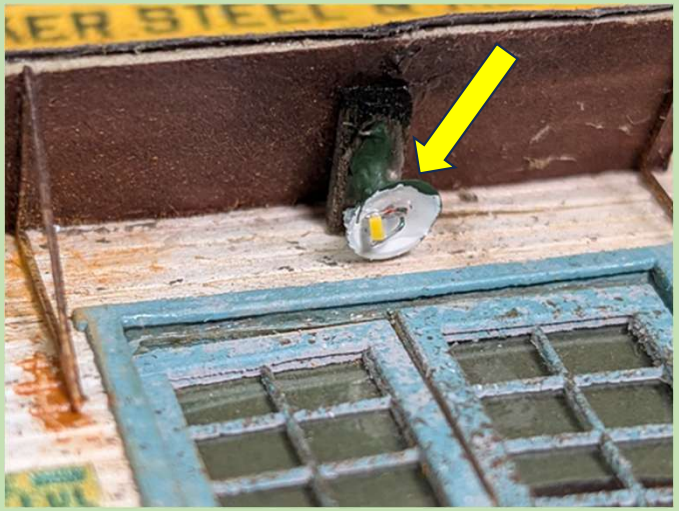
Wiring A Small Pre-Built Building #1

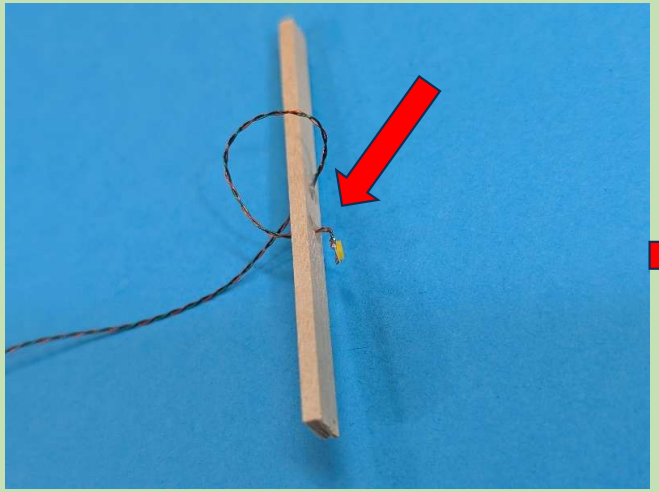


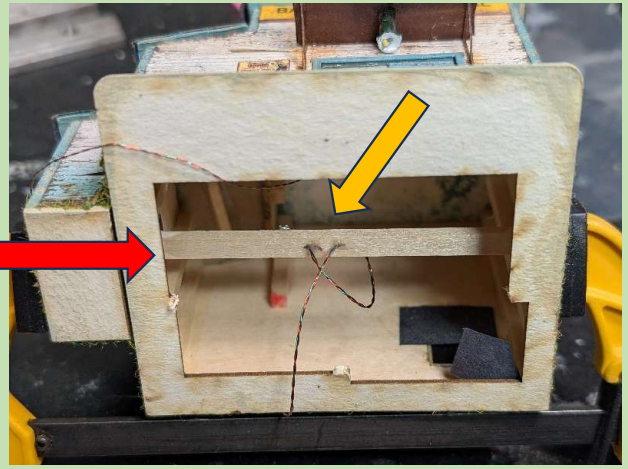




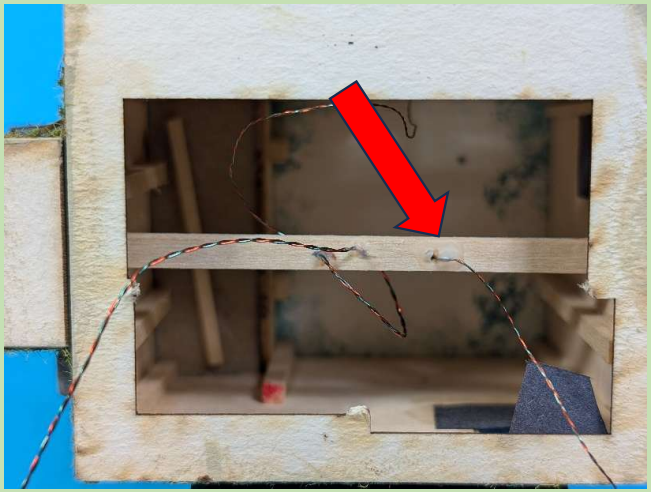
Wiring A Small Pre-Built Building #1

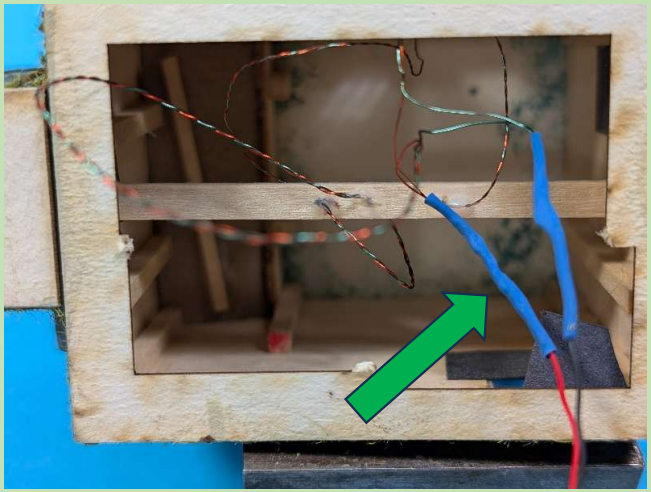


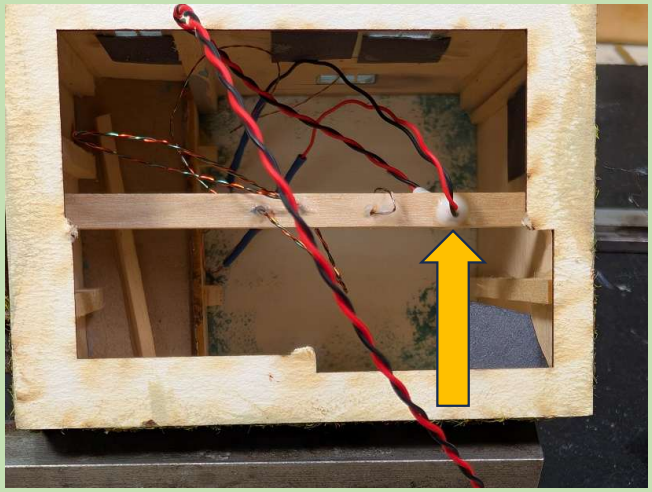




Wiring A Small Pre-Built Building #1





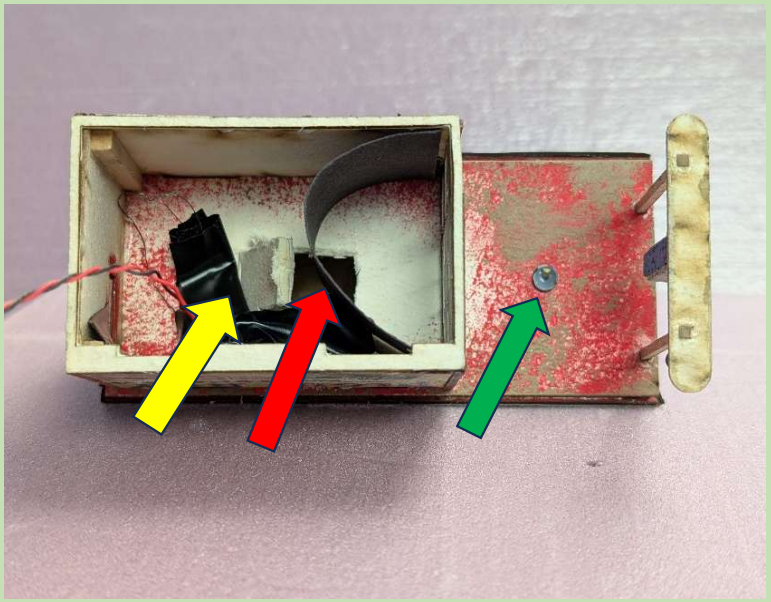


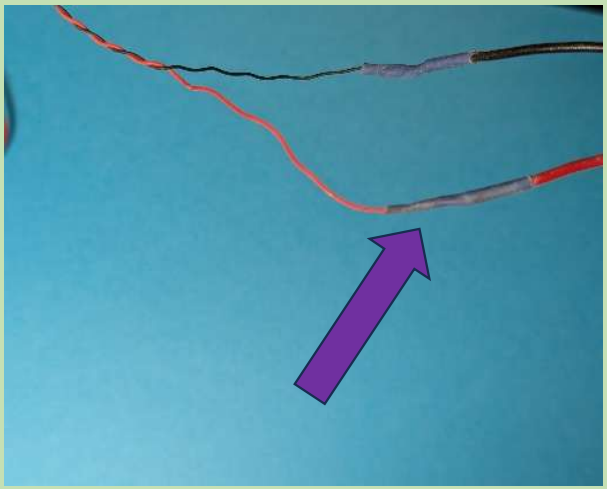
Let There Be Light 

(Using a Spare Power Supply At the Bench)

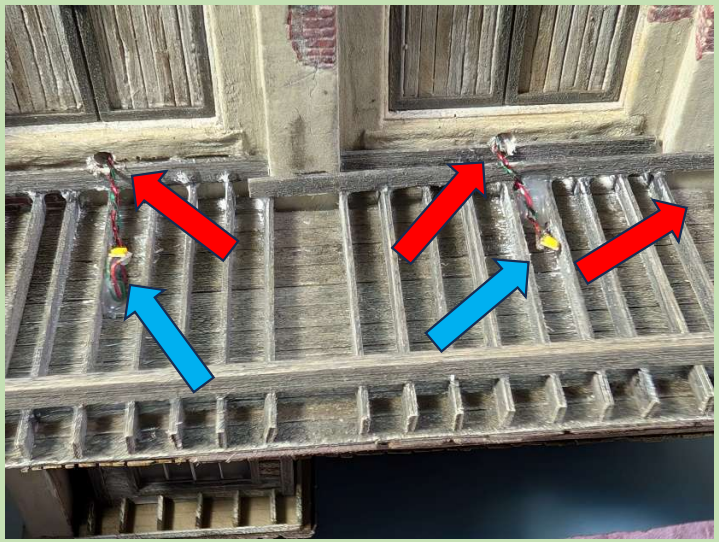
NOTE: I pre-test each LED before using them in each building

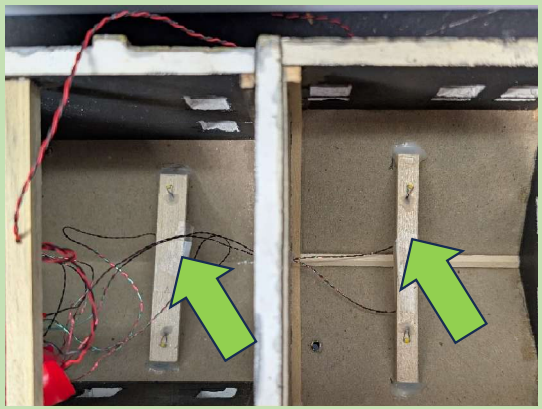
Wiring A Small Pre-Built Building #2

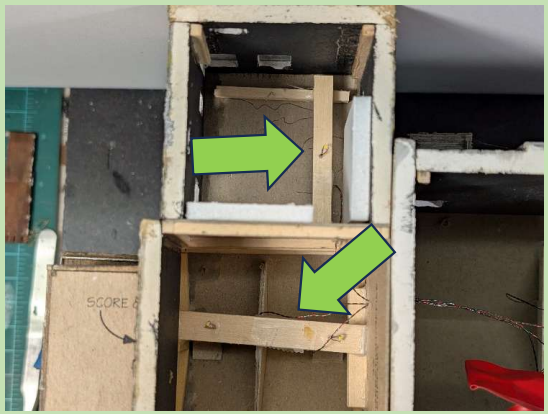




Wiring A Large Pre-Built: Building #1



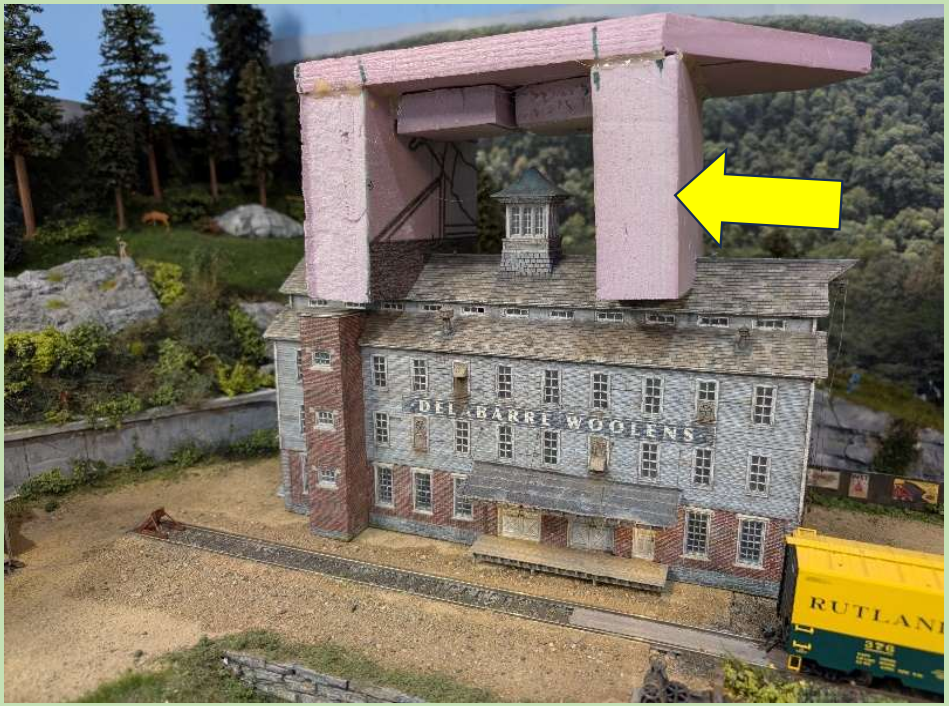




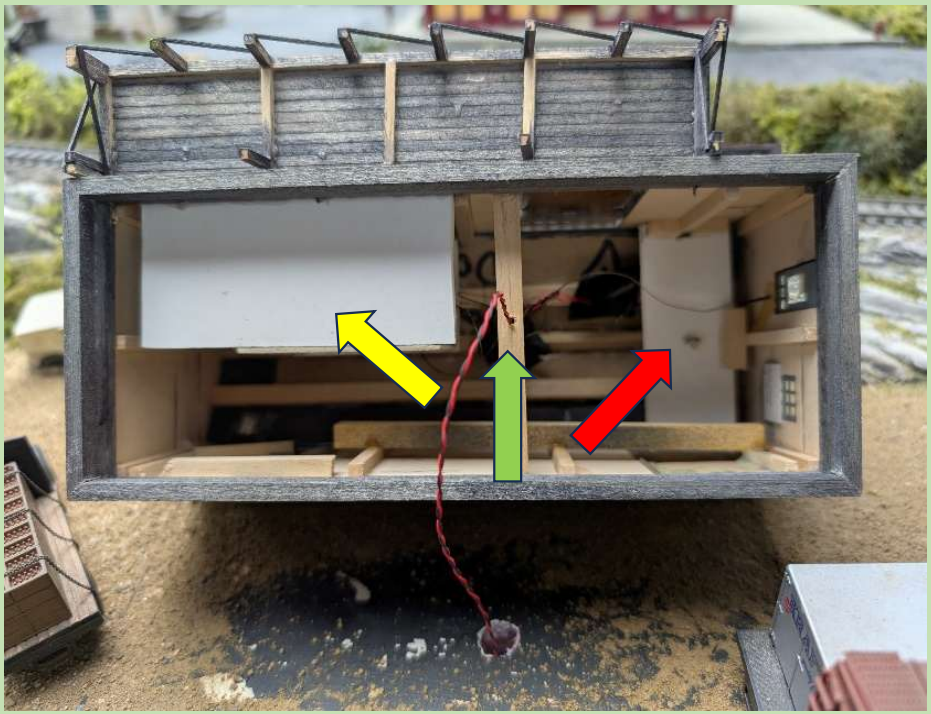
Wiring A Large Pre-Built: Building #1

Wiring A Large Pre-Built Building #2

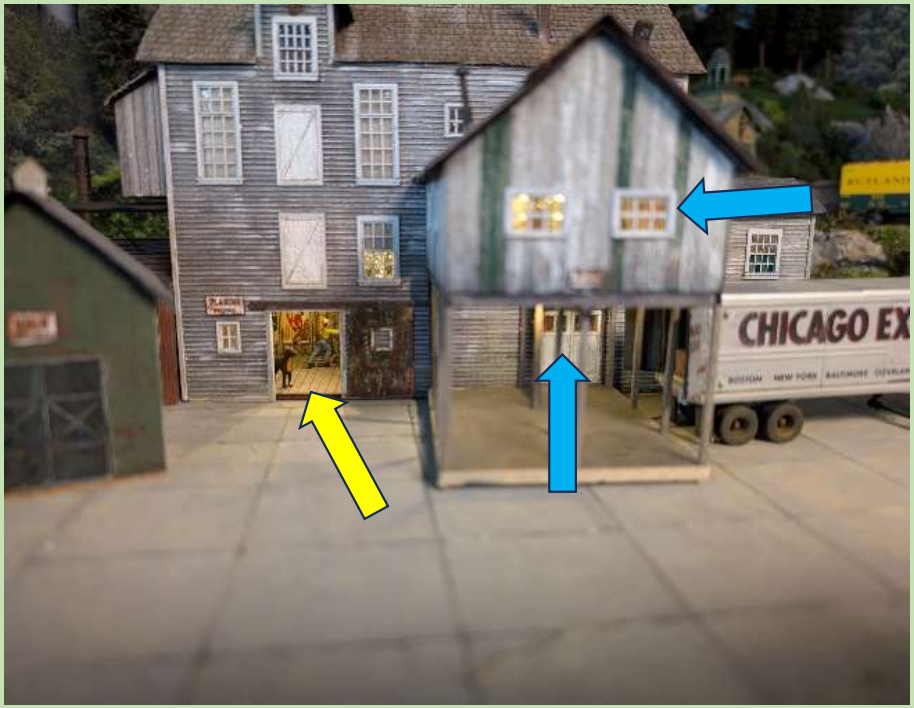
(4”D x 12” L x 7” H)



Wiring A Building And Adding An Interior While It's Being Built: Building #1



Wiring A Building And Adding An Interior While It's Being Built: Building #2




"That's all Folks!"

QUESTIONS?