



# **Seacoast Division NMRA**

**Animated Billboards**

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# Ever Want an Big Animated Billboard on Your Layout ?





OFFICIAL WEBSITE



# Suppliers

See <http://www.miniatronics.com>



See <http://www.microstru.com>





8581 Blue Diamond Mfg.



8681 Sandpiper Lounge



88-0901 Burlington



8781 Citgo



8881 Rylies Radio Repair



5200 Bethlehem Steel



8981 Galaxy Drive-In



9081 Galaxy Tool & Die



9181 Standard Plumbing



88-0501 Ballantine



9200's City Light



9300's I.C. Sparks



9400's Patriot Flag Co.



9500's Arctic Refrigeration



9600's Polar Ice



1251 Las Vegas

Sample of Miller Engineering animated billboards



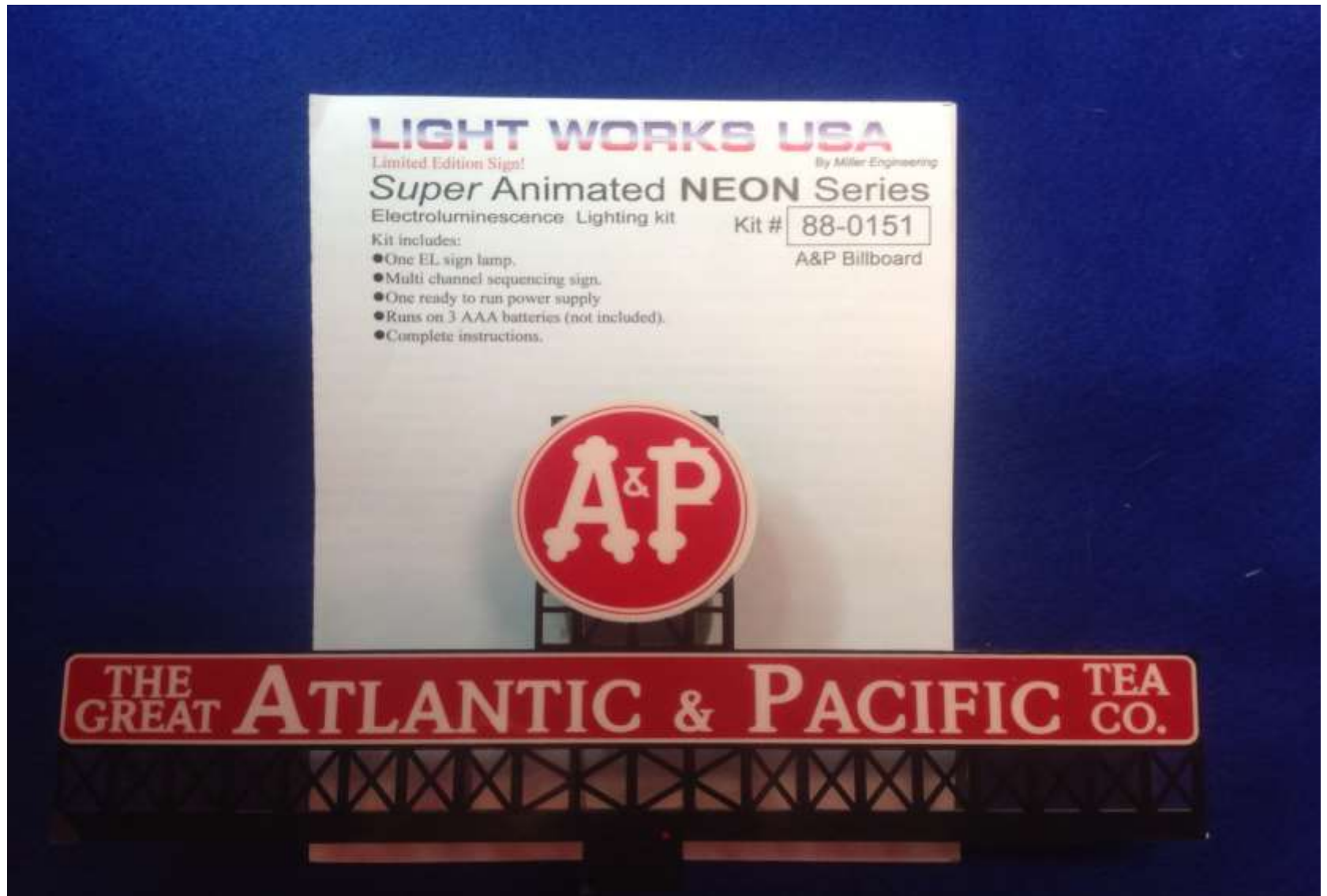
Samples being passed around

# Sample of Miniatronics Neon Signs





# Focus of This Clinic





# **The Package Contains:**

- **The sign (obviously)**
- **Instructions (Miller Engineering website also has additional information and tips)**
- **Supports**
- **Circuit card with on/off switch and sequencing selector switch, and attached control cable**
- **Power supply (3 AAA battery holder)**

# Instructions

Thank you for purchasing Miller Engineering's  
Animated Billboard.

Working with Miller Engineering's lighting products:

Your sign is fragile, treat with care. If the printed contacts are over-flexed or the plug connector is forced on, your sign will be damaged. Signs cannot be repaired, and if damaged it will need to be replaced.

Gluing is the recommended choice of assembly. Cyanoacrylate ("SUPER GLUE") or 5 minute epoxy are good choices. If using super glue, cyanoacrylate accelerator will greatly aid in the building of your kit. Glue MUST be kept away from the the contacts of the sign and the connector, failure to do so will RUIN your sign. Remember you don't need a lot of glue.

To mount your sign you will need to cut a small slot in the roof for your building the width of the contacts. Before mounting your sign test it for operation. Use glue to tack the sign place at one or two points along the sign. Make sure the sign is vertical and parallel to the front of the building while gluing. Caution - Keep Glue away from contacts and plug connector!

Your kit comes with 6 plastic molded supports for the back of your sign. Supports should be shortened as shown in figure #1. Glue supports in place as shown.

Assembly Instructions  
Model #88-0151 A&P Billboard

Please read ALL  
instructions before starting

Your Animated sign is programmed with 46 different chase patterns. Pushing the small button that is oposite the on/off switch will advance the chase patterns. Advancing the chase patterns too quickly may not allow the chosen pattern to be remembered.

Of the 46 patterns, some of them are better suited for the type of sign you have. To obtain the desired pattern hold down the button for changing the chase patterns until the sign goes out. Release the button and you will be at the first pattern, keep advancing the push button until the desired pattern is found.



Before starting to build your kit, test your sign for operation. When plugging the printed contacts into the connector it is best to have the plug connector at a slight angle when you start. Once started, straighten it out and finish inserting it. When plugging in your sign make sure that the white and red dots are aligned.

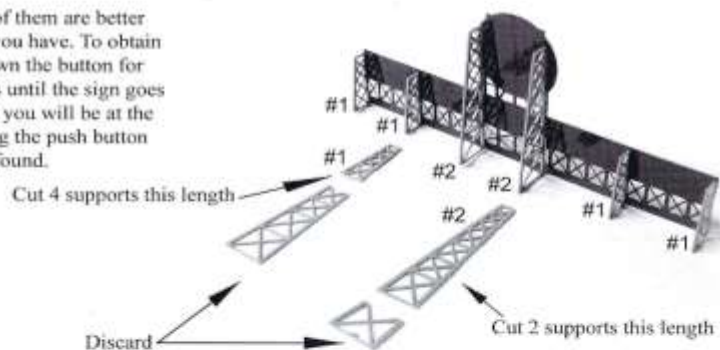
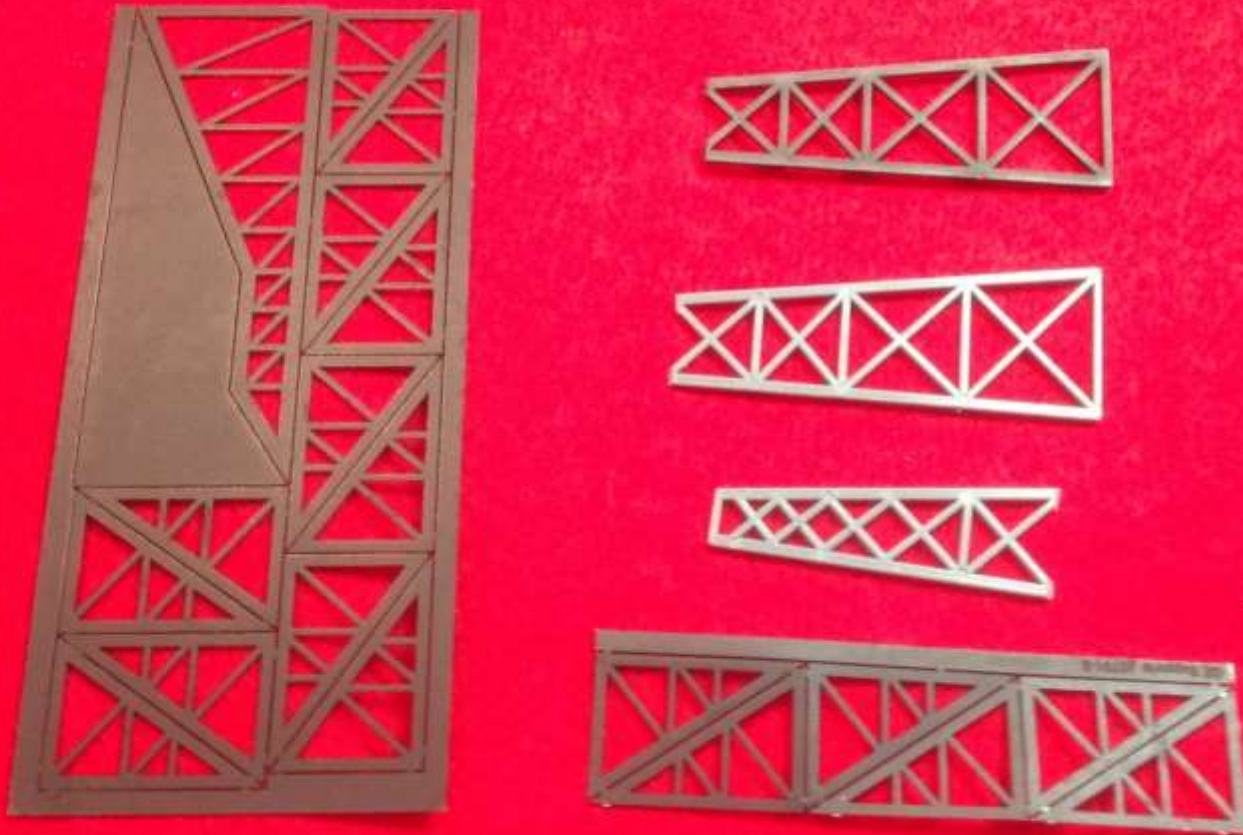


Fig. #1

# Supports

- May be plastic or laser-cut metal

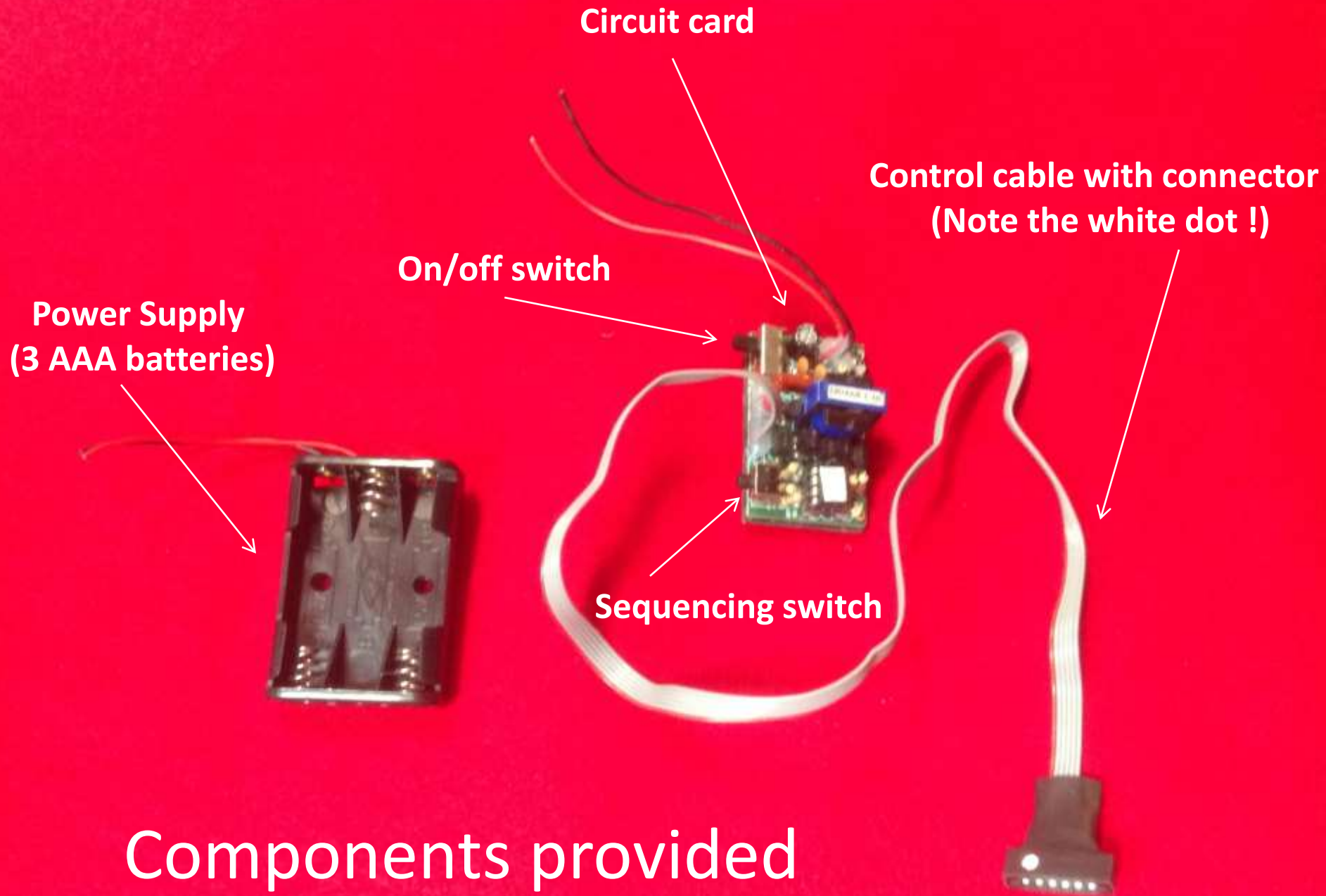




## Sign Supports on Sign

- Attach a base plate
- Use a mix of metal and plastic uprights
- Add styrene glue strips to metal uprights
- Use appropriate adhesives
- Drill holes for mechanical attachment to the roof by screws
- Paint support system black or grimy black





Components provided

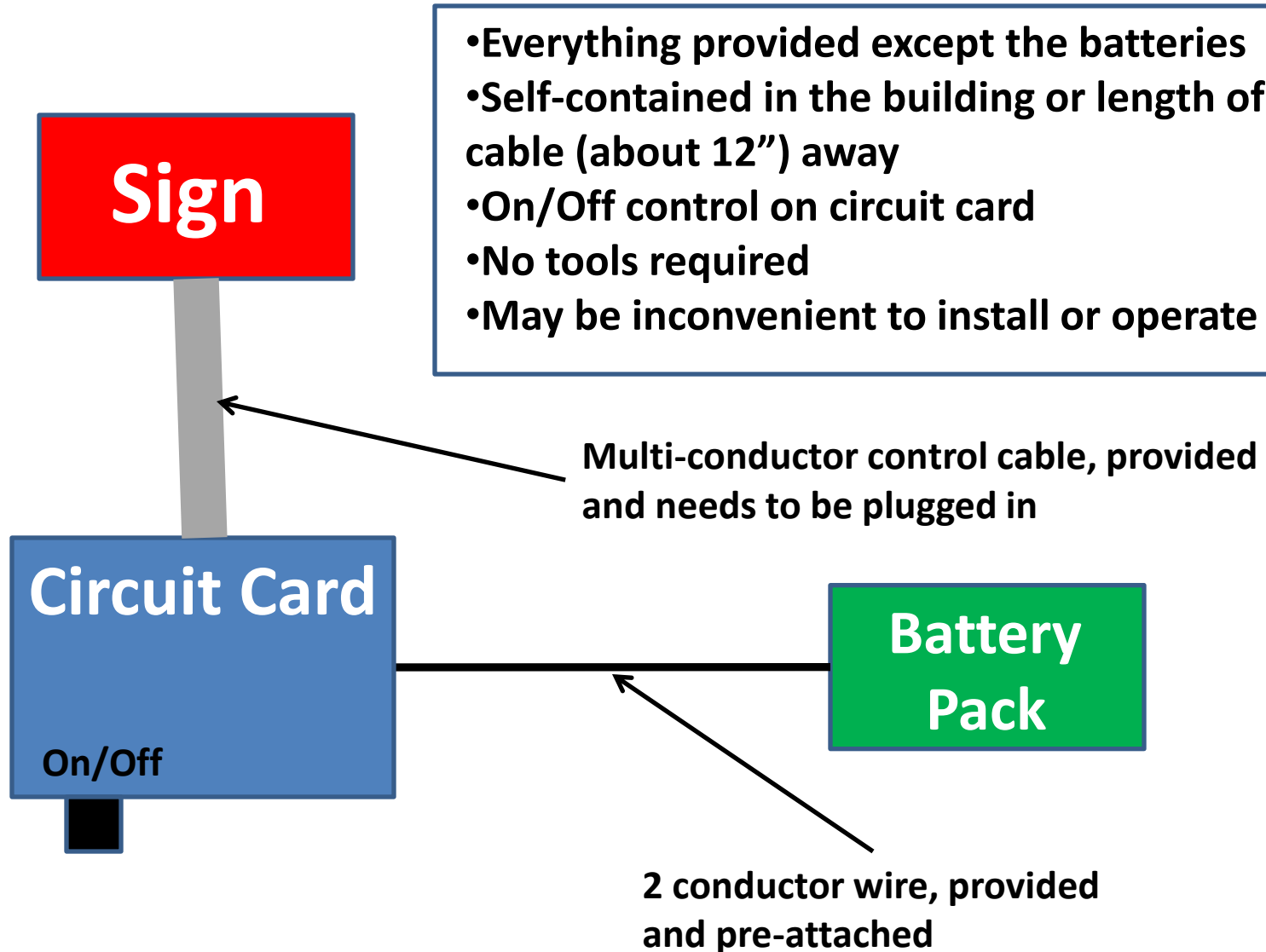
## Use a connector:

- Provides remote control access
- Or access to a remote power source
- Allows for easy building removal

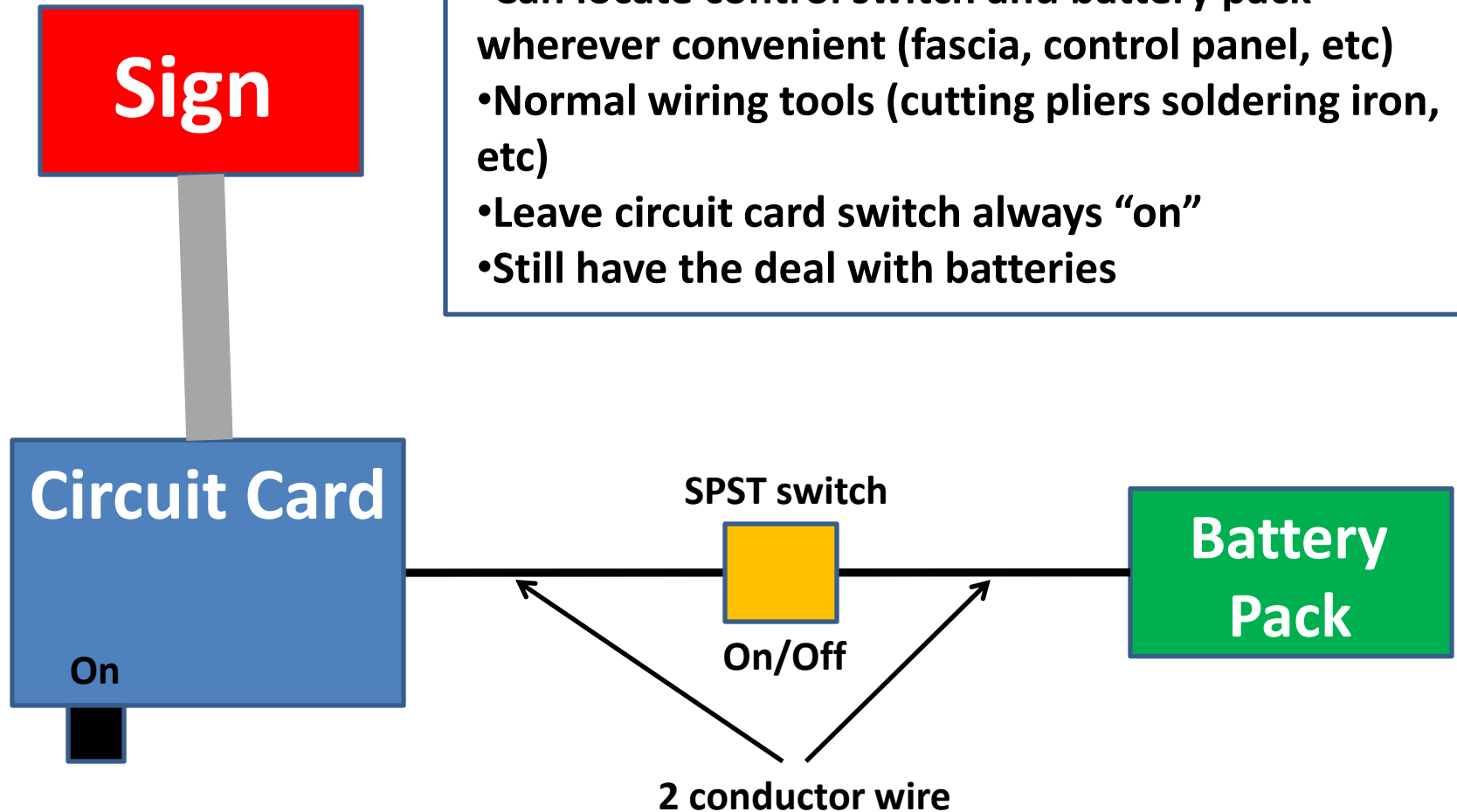




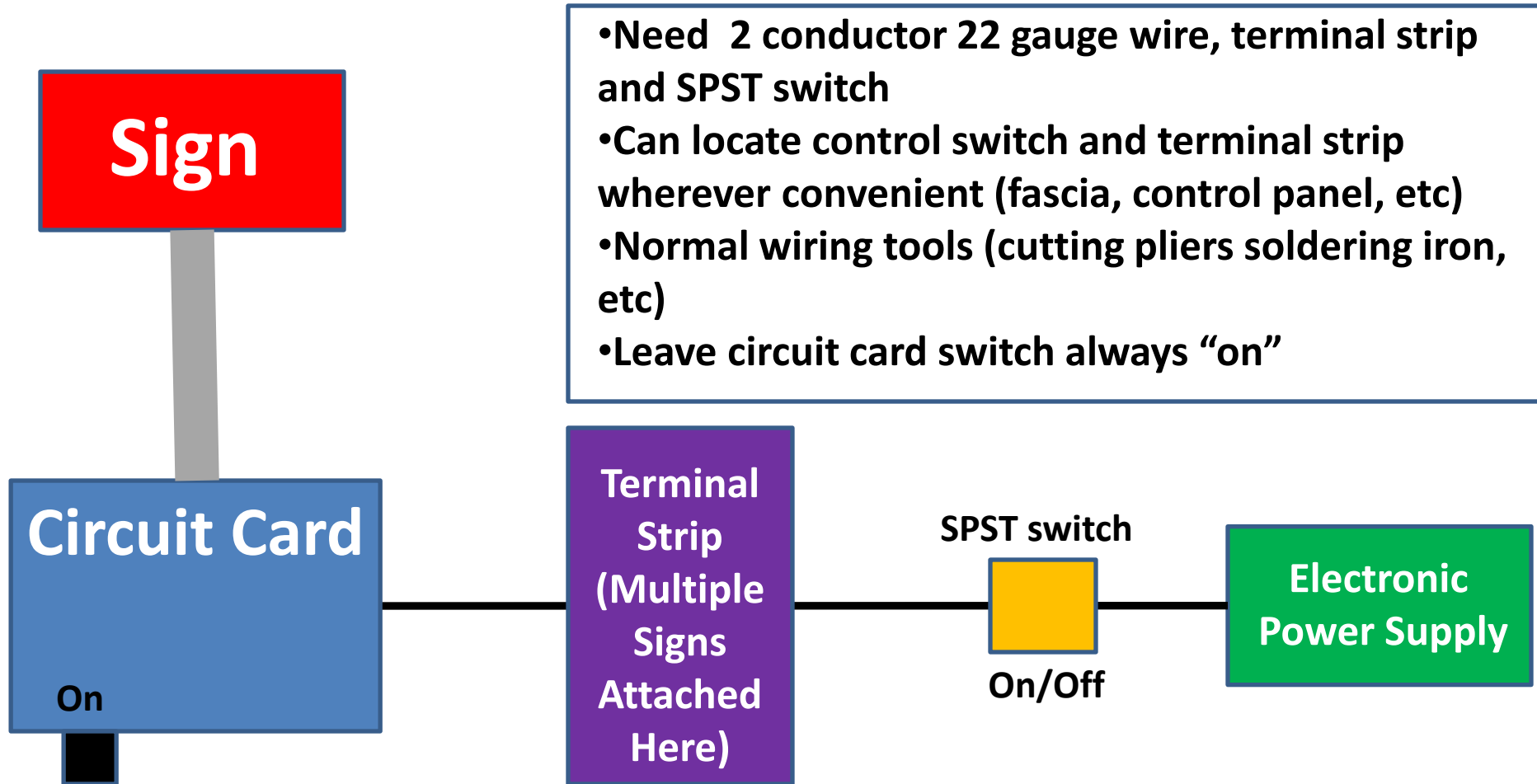
# Simplest Wiring Diagram



# Remote Control Wiring Diagram



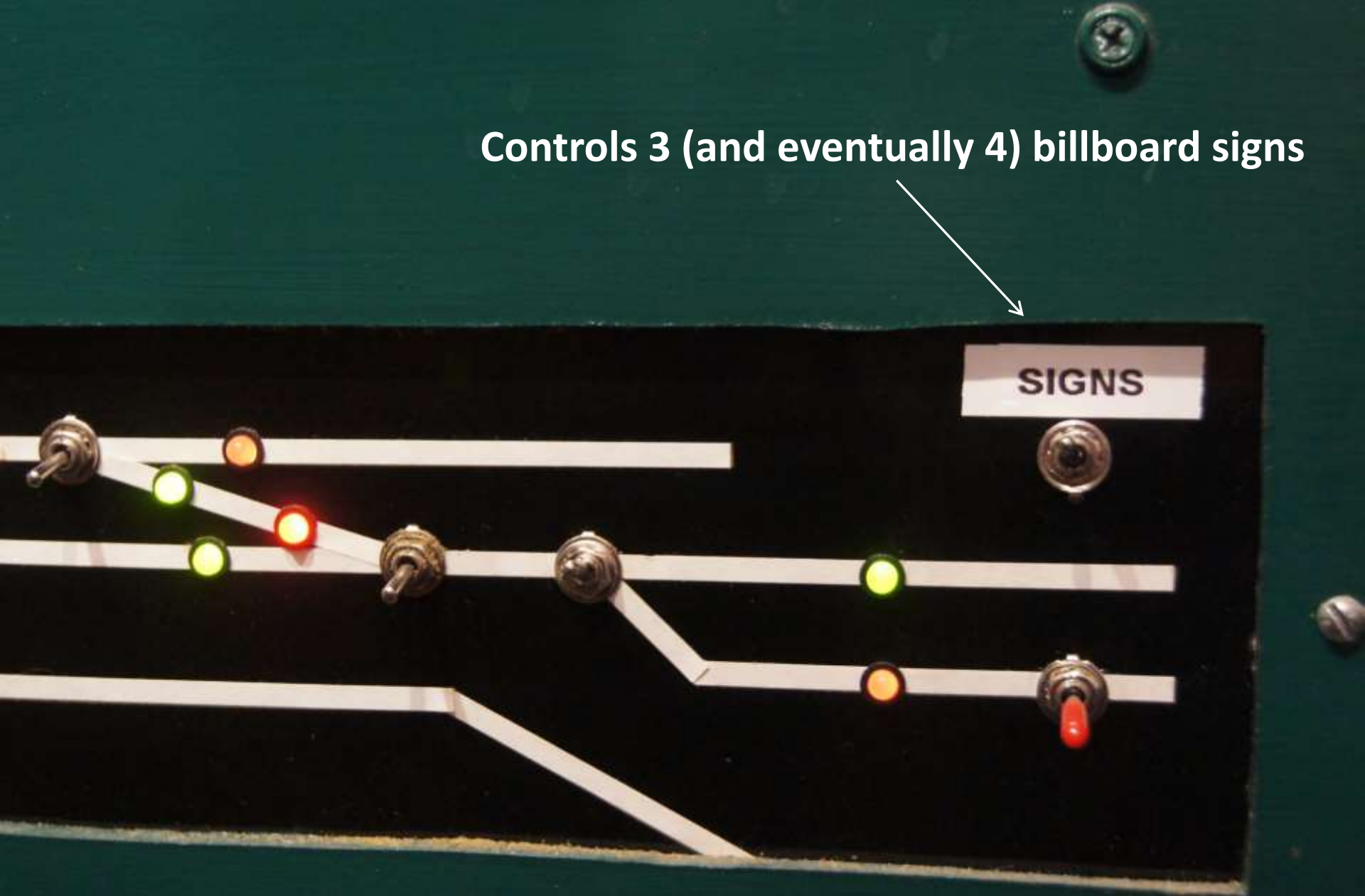
# Remote Control with Electronic Power Supply Wiring Diagram

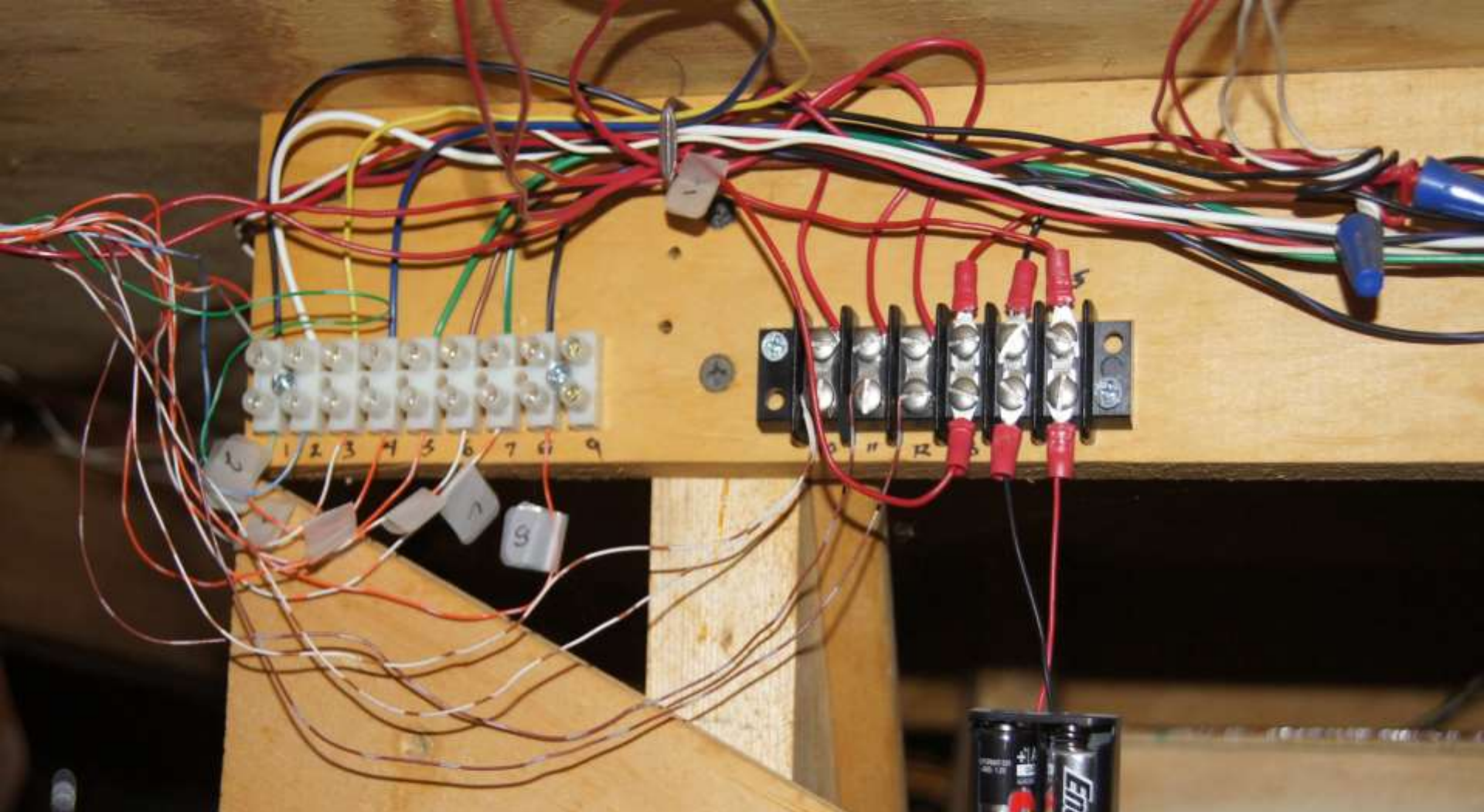




# Remote Control of Billboard Signs

Controls 3 (and eventually 4) billboard signs



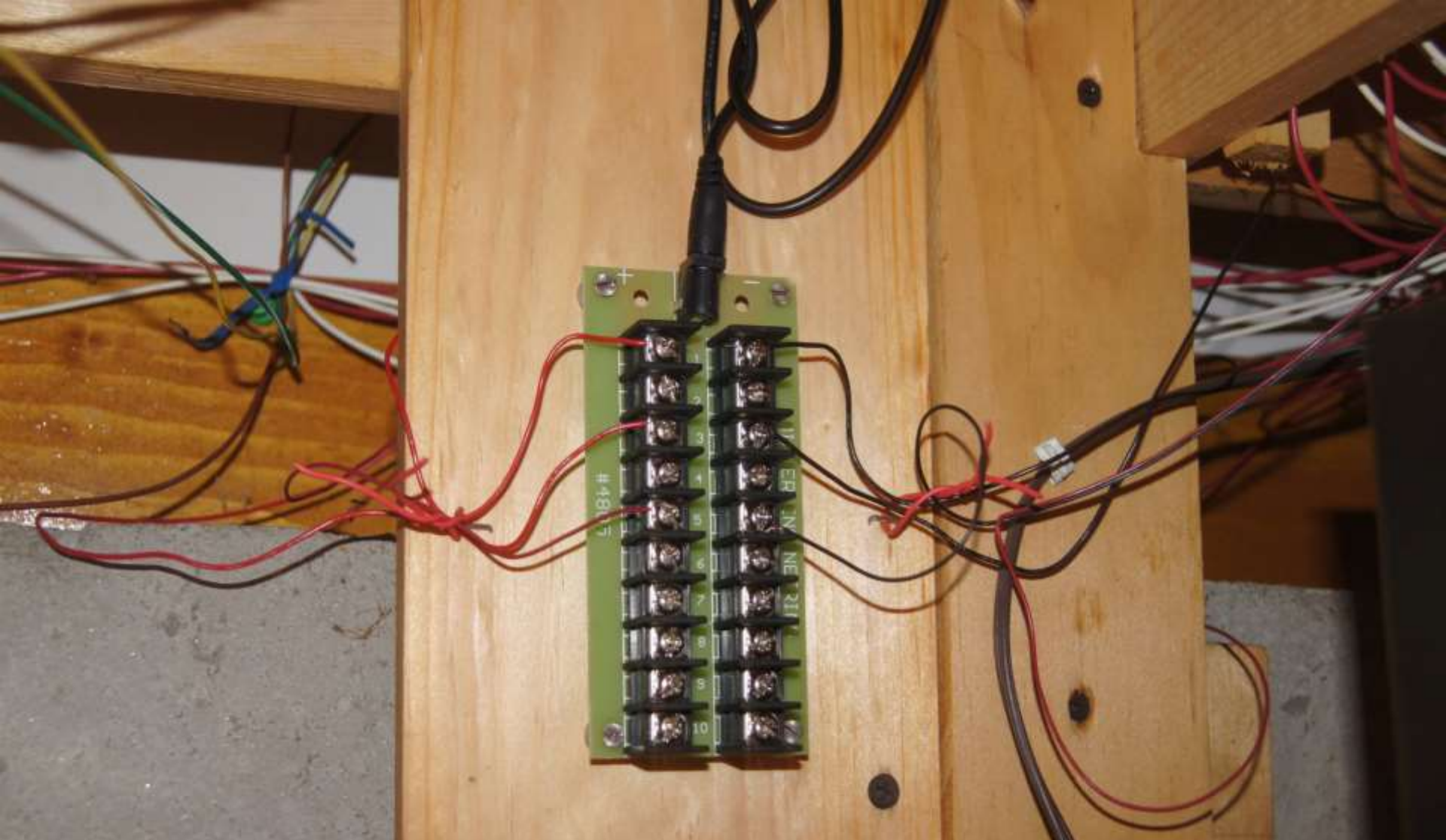


## **Remote battery power supply:**

- Easy access to change batteries
- For a small Miniatronics hardware sign

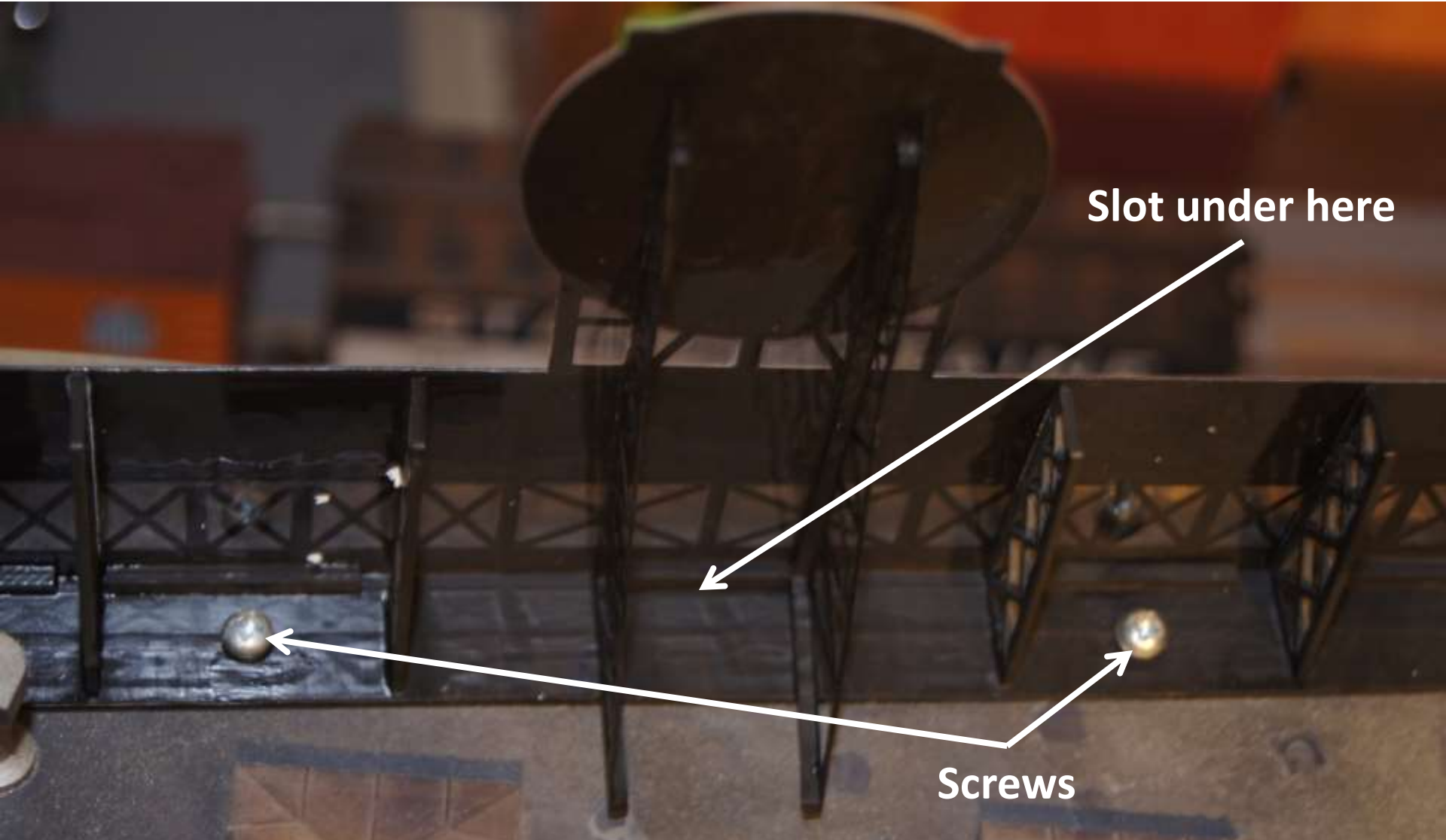






## **Remote electronic power supply:**

- “Walwarts” type, plugs in to power strip
- Powers up to 10 signs (will eventually take care of all billboards on my layout)



Slot under here

Screws

### **Attach to Building:**

- Cut 1" long by 1/16" slot in roof for connection tab
- Mechanical (screws) attachment to the building roof





## Circuit Board :

- Mounted with 2 sided tape
- Control cable connect to sign
- Set to "on"
- Desired sequence selected



# Building Re-installed on Layout



# One More View



# What You Need to Perform this Project

## Total Time Required = 2 Hours

### Parts List

- Sign (your choice, \$10 - \$50)
- Scrap styrene
- Super glue
- Styrene cement
- 2 pin connector (optional)
- 22 gauge wire
- Shrink tube
- Double sided tape
- Alternate power supply (optional)
- SPST switch (optional)
- 2 small, self-tapping screws

### Tools Needed

- Exacto knife
- Soldering iron, solder, flux
- Cutting pliers
- Wire stripper
- Screwdriver
- File





**Other animated signs  
On my layout**

This presentation will be  
posted on the Seacoast  
Division NMRA website

<http://www.seacoastnmra.org/>