



Paper Circuit Mural

1st–12th Grade

1 Hour (+ 1 Hour Preparation)

MATERIALS

- Foam Board
- Thumb Tacks
- AA Battery Holder
- AA Batteries
- Copper Tape
- Colored Tape
- Scotch Tape
- Velcro
- LEDs (3mm or 5mm)
- Assorted Color Paper
- Markers

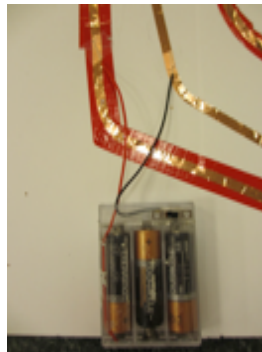
A paper circuit mural is a group project that builds upon the circuitry concepts that students learn with basic paper circuits. We recommend beginning with our complete paper circuit project guide, before proceeding with this one.

E-mail us at creativitylab@lighthousecharter.org

1. Build A Base

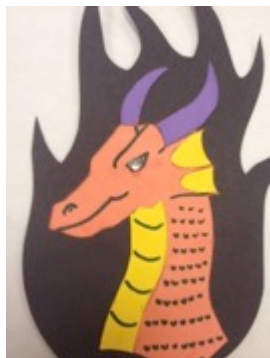
Use copper tape to make two roughly parallel “tracks” on the foam board. The tracks should never touch, and each track must have a distinct start and end point, i.e. a track that is a continuous loop will not work. Being able to distinguish the two tracks is also helpful. To do this, we’ve put a layer of red duct tape beneath one of our tracks. Using different widths of copper tape for each track is another option.

Velcro the battery holder to the board. Use scotch tape to fasten one wire to each track. (You can also solder them.)



2. Make Ornaments

Each student makes a personal ornament from construction paper. Poke an LED through the ornament, so the bulb is at the front, and the leads at the back. Use copper tape to extend the length of the leads.



3. Complete The Mural

Use thumbtacks to secure each ornament to the foam board. The positive lead of the LED must connect to the board’s positive track, and the negative lead to the negative track. When a firm connection is made, the LED will shine.

