

# Summer STEAM

## Kit #3: Electric Art



Brought to you by **Salmon Public Library**. Find video demonstrations on our Youtube channel, Facebook page or [salmonlibrary.org](http://salmonlibrary.org)

Recreate a scene from your favorite book or movie, or create a piece of art that's all your own. Then, light it up using paper circuits!

### Gather Materials

#### Included in Your Kit:

- Card stock w/ battery template
- Sheet of construction paper
- Coin cell battery\*
- Red, yellow or blue LED sticker\*
- Copper tape
- Binder clip

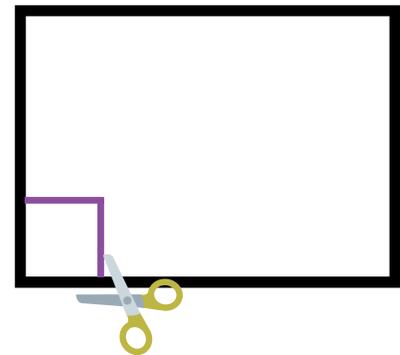
#### Additional:

- Ruler or straight edge
- Pencil
- Scissors
- Tape
- Glue or stapler
- Art supplies of your choice (colored pencils, markers, crayons, glitter, paint, felt, construction paper etc.)

\*Caution: Dangerous if swallowed.  
Keep out of reach of children under 5.

### Step One: Cut a 2" x 2" square out of the bottom left corner of the construction paper

Use a ruler and scissors to draw and cut a two-inch by two-inch square out of the bottom left corner of your construction paper. Test that the square is big enough by laying it over the card stock so the edges align. If you can see both circles for the battery, you're ready to move on. If part of the template is still covered by the construction paper, cut your square a little bigger.



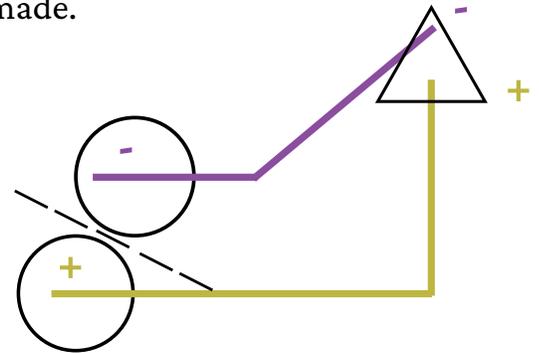
### Step Two: Create your art piece on the construction paper

Use whatever art supplies you like to create a scene on the construction paper. Include something in your scene that you want to light up with the LED sticker. Try making a scene from your favorite book or movie -- or do something from your own imagination.

### Step Three: Draw your circuit

Cut a hole in your construction paper where you want the light to go. Make the hole about the same size as your LED sticker. Lay the construction paper over the card stock so that the edges align. Then use a pencil to make a mark on the card stock directly in the middle of the hole. Set your art aside for now. Grab your LED sticker and trace its shape on the card stock, around the mark that you just made.

Use a straight edge and a pencil to draw two paths: one from the positive (+) side of the battery to the positive (flat) side of the sticker, and one from the negative (-) side of the battery to the negative (pointy) side of the sticker. The two paths must have straight lines only (no curves), and **they must not touch or cross**.



### Step Four: Make your circuit

Cut two strips of copper tape the length of each of your paths. Carefully peel off the paper backing and lay the tape down on the paths you drew. If there are angles in your path, **do not tear your tape**. Instead, make a corner fold, by first folding the tape in the opposite direction you want the tape to go, and then folding it back over itself in the right direction. Smooth the fold down with your finger.



**(Tip:** If you tear your tape by mistake, make a patch by laying a small piece of copper tape over the gap, sticky side up. Secure with regular tape.) Once your paths are taped, place the LED sticker so the negative (pointy) side overlaps the negative path and the positive (flat) side overlaps the positive path. Place the battery negative side down in the circle labeled (-). Then fold the card stock at the dotted line so that the positive pathway touches the positive side of the battery. Secure in place with the binder clip.

### Step Five: Light up your scene

Lay the construction paper back over the card stock so the hole is over the LED sticker. Glue or staple the two pages together. Clip in your battery and light up your picture!

### Summer Reading Participants: Earn a Bonus Ticket!

By completing this activity, you can earn a bonus ticket for the Summer Reading Raffle. Simply do one of the following and then **check in at the library by Saturday Aug 1st:**

- With your parent or guardian's permission, share a photo of your project on Facebook or Instagram and tag Salmon Public Library
- Email the photo to [salmonlibrary1@gmail.com](mailto:salmonlibrary1@gmail.com)
- Bring your circuit art into the library and show us in person