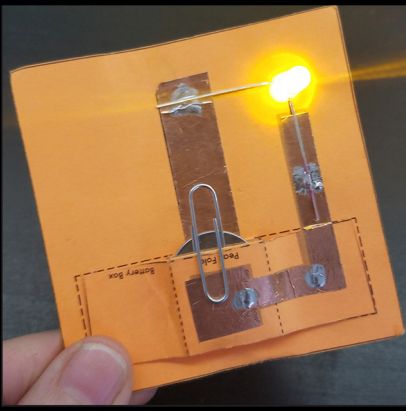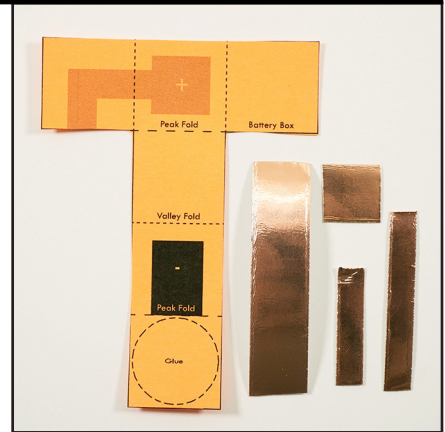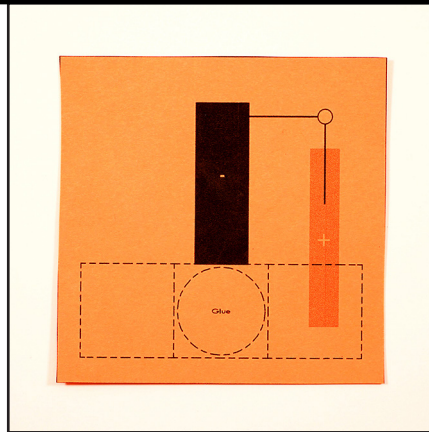# EUREKUS®
STEAM & MAKER DISCOVERY

LED CIRCUIT CARDS
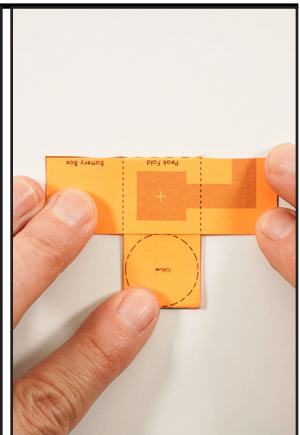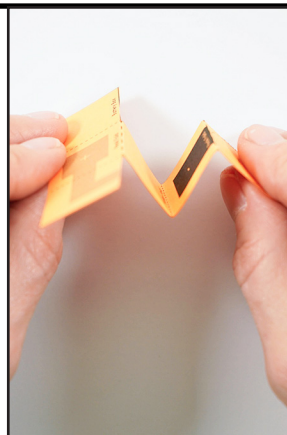### *Design a Mini LED Circuit to Enhance Any Project!*

STEP 1

Cut out your circuit card and battery box templates along the solid black perimeter lines. The diagrams show where to place the copper tape. Black diagrams are (-) negative. Red or grey diagrams are (+) positive. *Optional: Pre-cut the copper tape pieces for younger makers.*
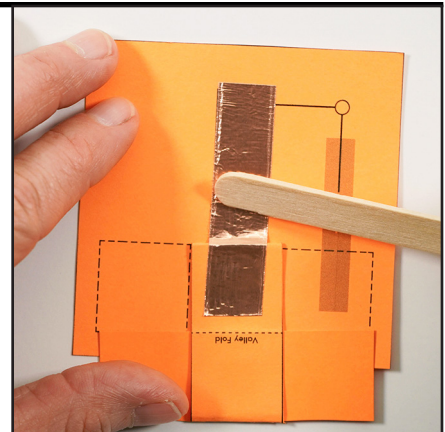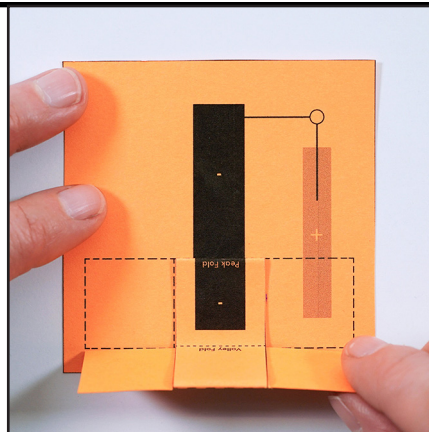
STEP 2

Fold the battery box into an "M" shape. Large dashed lines are peak folds and small dashed lines are valley folds. Add glue stick along the center of the back, non-printed side. Fold each end over and press to create a smaller "T" shape. Your diagrams should be visible on all sides.
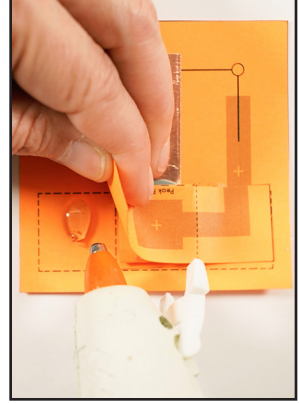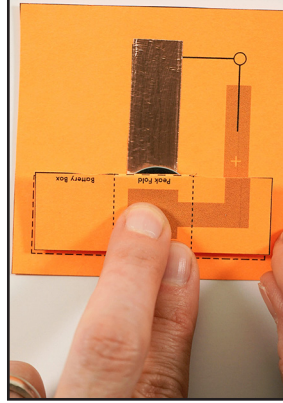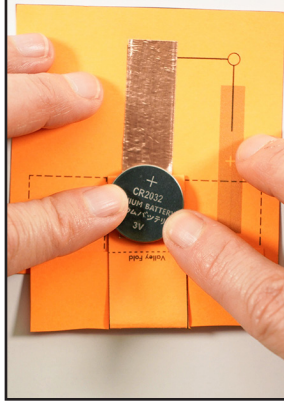
STEP 3

Glue the battery box onto the circle diagram on the card. Your black (-) rectangles will line up. Get a 1/2" x 2" strip of copper tape. Place the copper tape over the (-) black rectangle in the battery box and run it up the diagram towards the LED. Rub it with a popsicle stick to burnish.
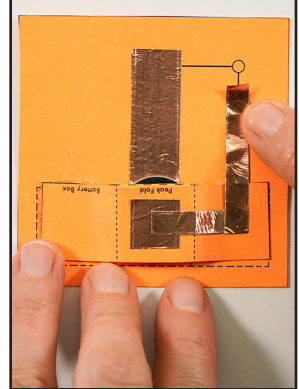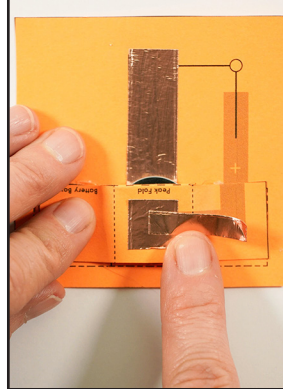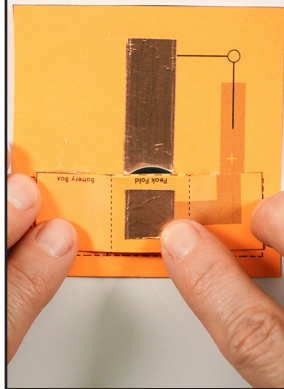
STEP 4

Place the battery onto the copper tape inside the battery box (-) side down. Fold the end of the battery box over the battery to form a pocket. The (+) diagrams will line up at the right. Glue both side tabs down with hot glue. Make sure your battery pocket is tight.
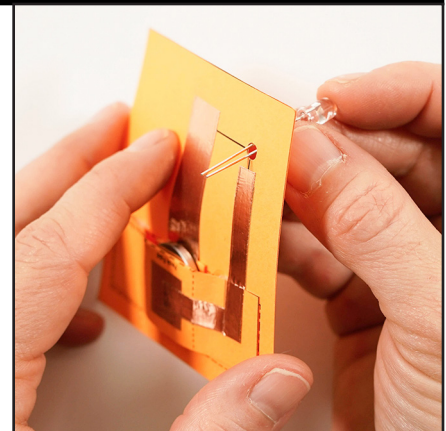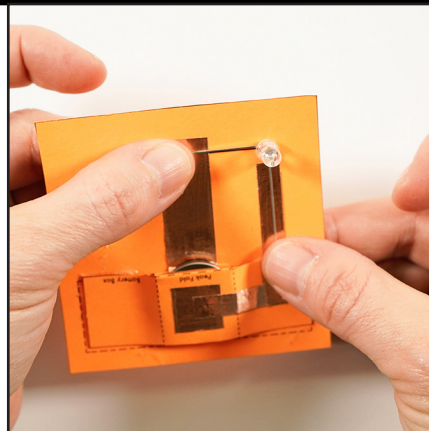

STEP 5

Place a 1/2"x 1/2" copper tape square onto the (+) diagram on the outside of the battery box. Place a 1/4" x 1" strip of copper tape from the center of the copper square to the right along the diagram. Place a 1/4" x 1 1/2" copper strip from the corner to the LED. Burnish copper.

STEP 6

You can place the LED on the front of your card for flat projects. Or, you can punch a hole in the small circle and insert your light through the back of the card. This allows you to insert your LED into boxes or projects so that the battery box is accessible from the back side. Place your LED as desired.

STEP 7

Fold the leads down to the copper tape. Your long lead is (+) and must be secured to the (+) copper tape line. Secure leads with reverse tweezers or blue tape. Solder each lead to the corresponding copper tape. Insert a paper clip onto the front of the pocket to make a switch.