Fireflies in a Jar

Use two LEDs, a CR 2032 battery, and Maker Tape to make fireflies in a jar

Written By: Amanda Etim



INTRODUCTION

Use two LEDs, a CR 2032 battery, and Maker Tape to make fireflies in a jar

You can make this project (and many more!) with our Paper Circuits Kit.

TOOLS:

- Scissors (1)
- Markers, Crayons, or Colored Pencils (1)

optional

PARTS:

- Paper Circuits Kit (1)

Step 1 — Print, Cut, and Color Template







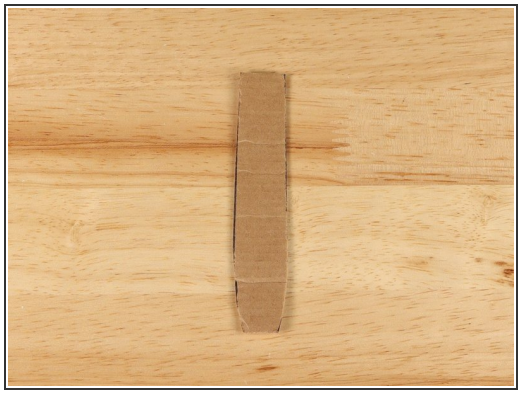
- **Print out the template** on heavy cardstock.
- **Color and cut out** out the template.

ⓘ We have included a full color template as well as a black and white template. Print the one that works better for your printing needs.

Step 2 — Add LEDs



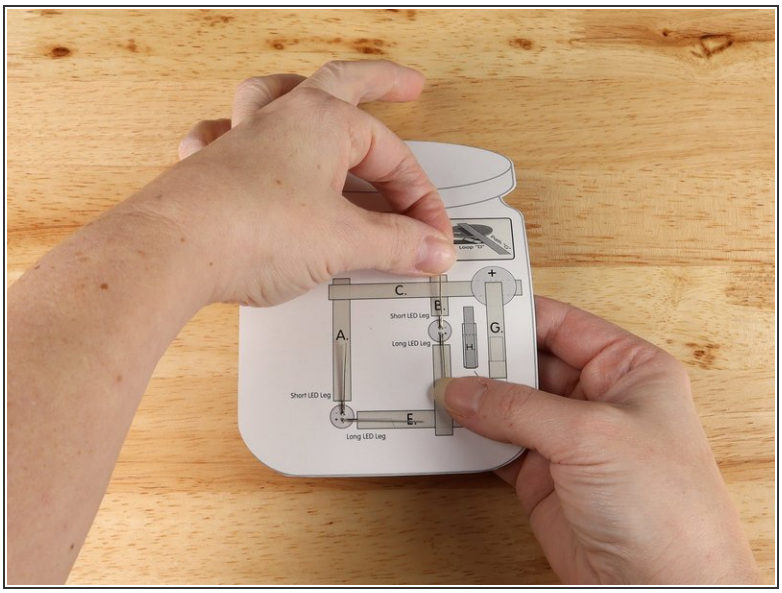




- Use a safety pin or a thumbtack to **poke holes** for the LED legs to go through.
- **Insert LEDs** into holes paying close attention to the orientation of the LED legs. **Long legs are Positive** and **Short legs are Negative**.

Step 3 — Bend LED Legs





- **Bend the LED legs** flat on the back following the diagram.

Step 4 — Tape Path A



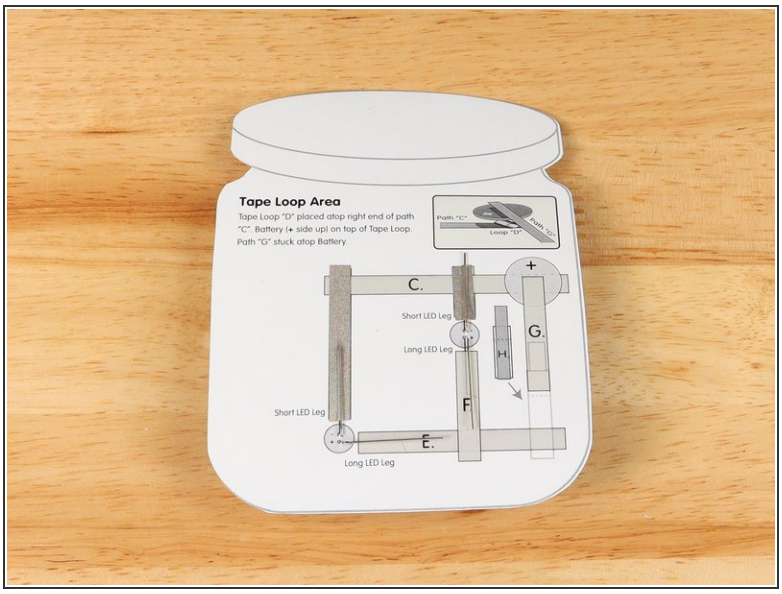


- **Add Maker Tape to tape path A.** over the top of the LED leg.

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Step 5 — Tape Path B





- **Add Maker Tape to tape path B.** over the top of the LED leg.

Step 6 — Tape Path C

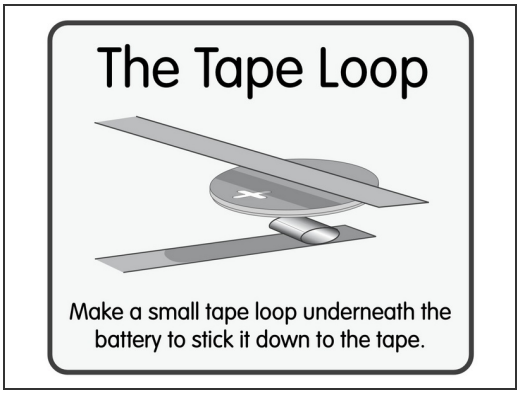


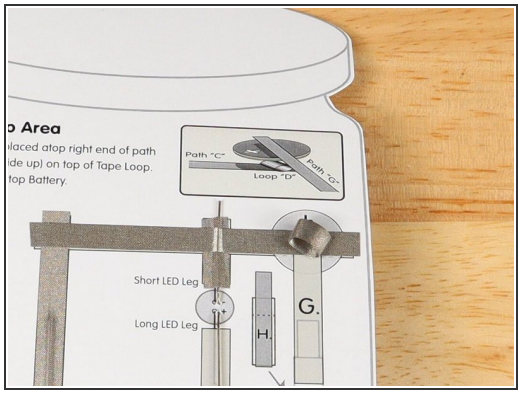


- **Add Maker Tape to tape path C.**

Step 7 — Add Tape Loop



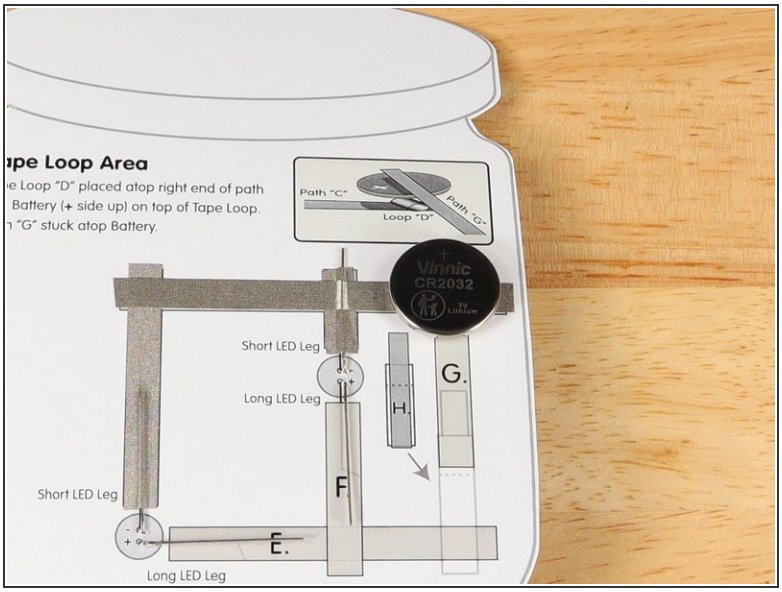




- Make a **loop of tape** (sticky side out) using a short piece of Maker Tape, and stick it atop the end of tape path C.

Step 8 — Add Battery D





- Once your **Tape Loop** is in place you can add the **Battery** to it.

- Make sure the **Positive** side of the Battery is facing upwards, with the **Negative** side stuck down to the tape.

Step 9 — Tape Path E

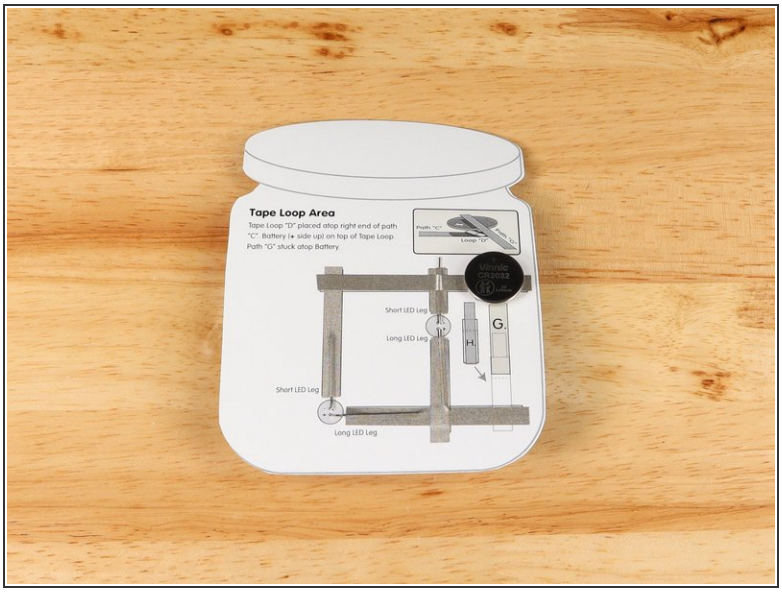




- **Add Maker Tape to tape path E.** over the top of the LED leg.

Step 10 — Tape Path F





- **Add Maker Tape to tape path F.** over the top of the LED leg.

Step 11 — Tape Path G





- **Add Maker Tape** to path G connecting the top (**Positive**) side of the battery to the diagram.

⚠ This path should not connect with path E. We will add a switch to control the project.

Step 12 — Add Switch







- If you haven't made a paper lever switch yet see the guide: Switch - Lever Switch
- **Add the paper switch** to the end of tape path G. The other end of the switch should come in contact with tape path E.

ⓘ If the switch does not reach you can adjust and add more Maker Tape as needed.

Step 13 — Fireflies in a Jar Assembled



- Your Fireflies in a Jar craft is assembled and ready to light up the night sky!

Step 14 — Literacy Connection



- Check out Firefly Song for a great read-aloud to connect to this project!