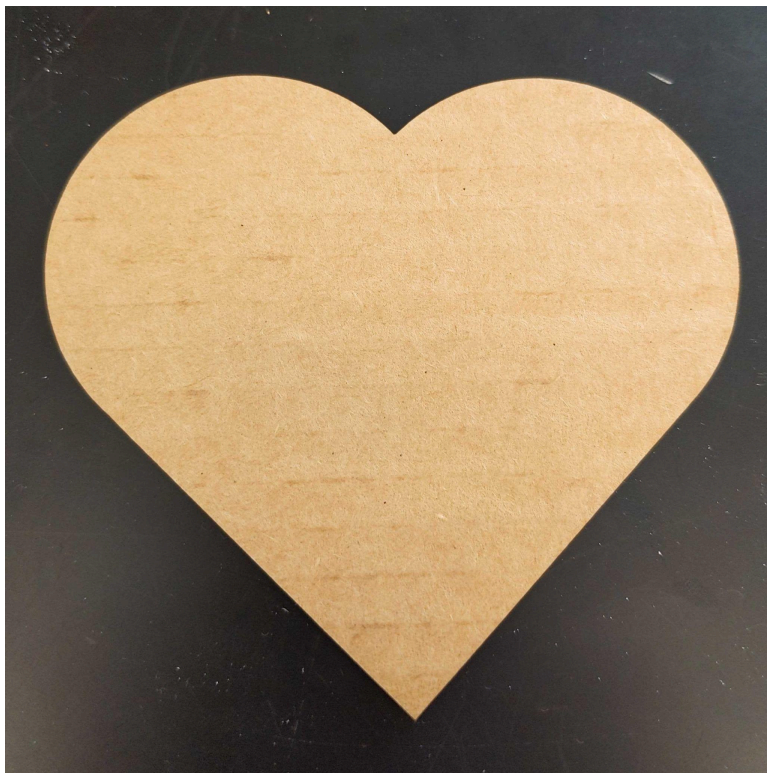


Light Up Yarn Heart

Materials Needed

- Cardboard
- LEDs
- CR2032 battery
- Yarn (any color)
- Copper tape
- Masking or scotch tape

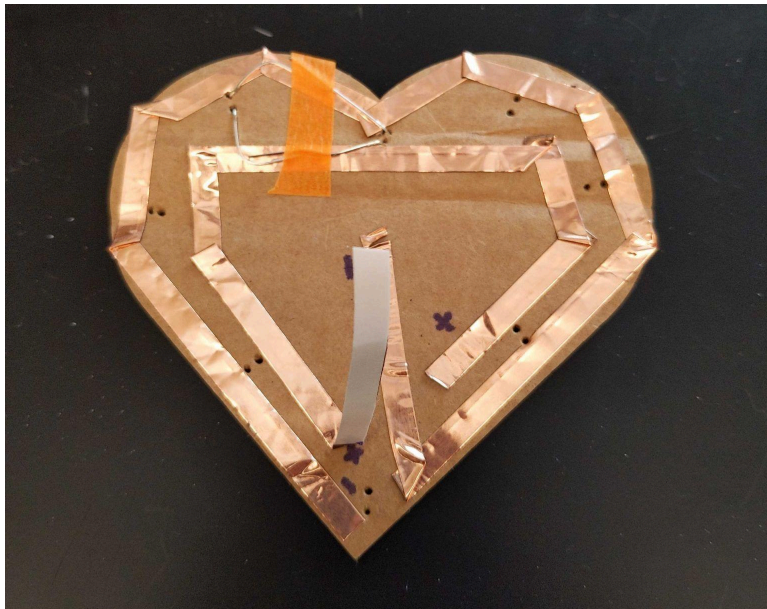
Step 1 Cut out cardboard



Cut a heart shape out of cardboard. You can do any shape you want, though.

Step 2 Apply Copper tape

Make a “track” of copper tape around one side of the heart. The rails of the track should not touch. One is for the negative, the other for the positive part of the circuit. Leave a piece unstuck. This will be used for the “button”.



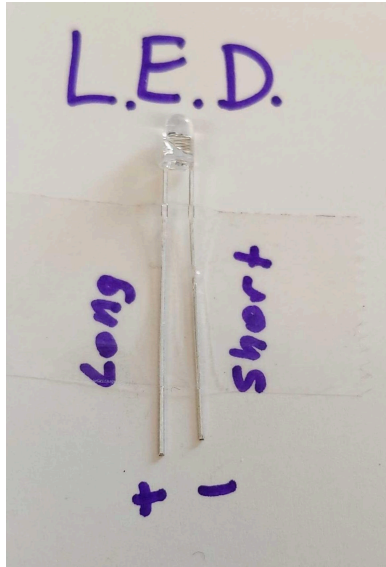
Step 3 Poke holes for LEDs

Poke holes in the heart for the LEDs. You can do as many or as few as you want. This one is labeled with - and + to make sure the LEDs are placed correctly.



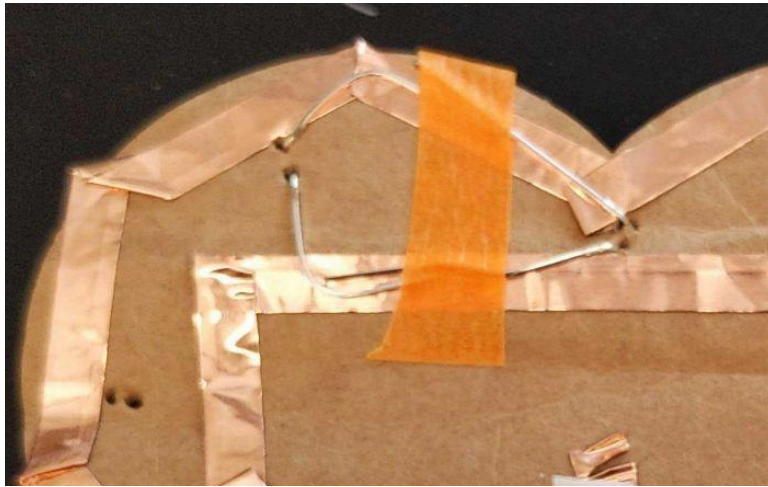
Step 4 Insert LEDs

Push the LED legs through the holes. The short leg is negative (-) and the long leg is positive (+).



Step 5 Secure LEDs to Copper Tape

Bend the legs of the LEDs so that the negative leg lays flat on the negative rail and the positive leg lays flat on the positive rail. Tape them down so they stay in contact with the rails.



Step 6 Make Battery Holder and "Button"

Use cardboard or cardstock to make a ring the size of the battery. The ring should be at least three times as tall as the battery.



Fold a piece of cardboard or cardstock to fit like a bridge over the battery ring. The positive (+) side of the copper tape will attach to the underside of the bridge to act as a button.



Step 7 Secure Battery and Button to Heart

Use Masking tape to secure the battery ring and bridge (button) to the back of the heart. The button should rest on the negative (-) rail of copper tape. The positive (+) rail of tape should be attached to the bottom of the bridge.



Test the LEDs by pressing the button. They should all light up. If not, check to make sure all of the LED legs are touching the correct rail and are firmly taped down.

Step 8 Wind with Yarn

Finally, wind yarn around the heart until all of the cardboard is hidden. Secure the yarn on the back by tying a knot.

Press the button on the back to make the LEDs light up!

