2. PARALLEL CIRCUIT

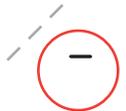**Directions:**

1. Turn to the template on the next page and stick foil tape over the gray lines to create a "track" for your LED stickers. You will be able to place stickers anywhere along this track.

2. Fold the page corner along dotted line and place the battery "+" side-up over the "-" circle.

3. Fold the corner flap over, and clip the battery in place with a binder clip.
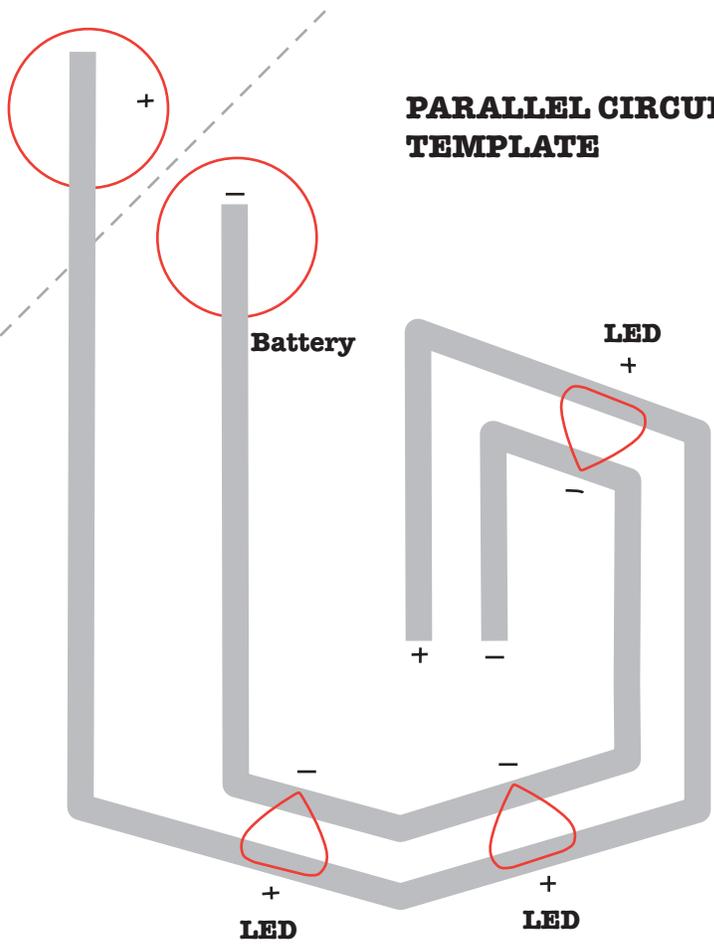
4. Stick LED stickers onto the foil track, over the footprints. Choose any colors you like. All the lights will turn on!
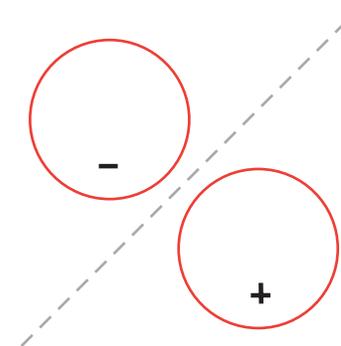
5. Now flip to the next page. You've created stars! How would you add more stars to the constellation? Try adding another LED to your parallel circuit.

+

−

Battery

PARALLEL CIRCUIT
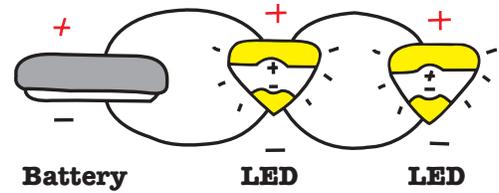## TEMPLATE

LED
+

−

+ −

− −

+ +

LED **LED**

−

+

2. PARALLEL CIRCUIT

Now add more lights to your circuit! To turn on multiple LEDs with one battery, you can make a parallel circuit. Here, we connect the "+" end of multiple LED stickers to the "+" side of the battery and the "-" points of the LEDS to the "-" side of the battery.

Battery   **LED**   **LED**

This creates multiple loops for electricity to flow, turning on all of the LEDs at the same time with only one battery.

This is called connecting LEDs **in parallel**. You can add as many LEDs as you want, though the LEDs will all get slightly dimmer as you add more to the circuit.
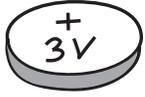
YOUR TURN!

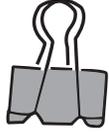Complete the nighttime scene by making another glowing parallel circuit on the blank template.

You will need:

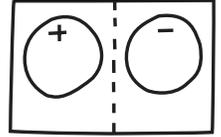|		
	x 3	LED circuit stickers
	x 1	3V coin cell battery
	x 1	binder clip
		conductive foil tape

TRY THIS!

Here's how to take your circuits off the page and make anything shine!
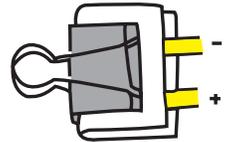
Make your own battery holder

1. Fold a small piece of paper in half and trace an outline of the battery on each side of the fold. Mark one circle "+" and the other circle "-".
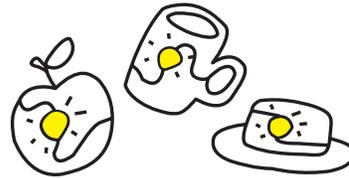
2. Make leads by sticking copper tape onto each circle, with the rest of the leads extending off the paper.

3. Clip your battery in place. You just made a battery holder!

Decorate with circuits

Decorate your favorite things with LED circuits! Avoid metal surfaces as these may cause unwanted short circuits.

Add more stars to the sky by
lighting up more LEDs!