Oscar and the Bird: LED Bird

A simple, single-LED paper craft referencing the book titled Oscar and the Bird: A Book About Electricity by Geoff Waring. The wing is a hidden switch!

Written By: Andy Wallus



INTRODUCTION

A simple, single-LED paper craft referencing the book titled Oscar and the Bird: A Book About Electricity by Geoff Waring.

The wing is a hidden switch!

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

TOOLS:

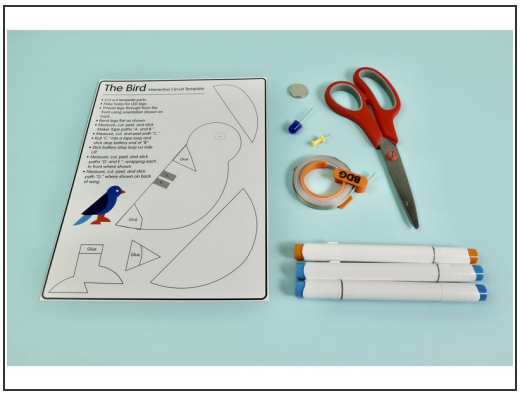
- Scissors (1)
- Markers, Crayons, or Colored Pencils (1)
- Push Pin (1)
- Glue (1)

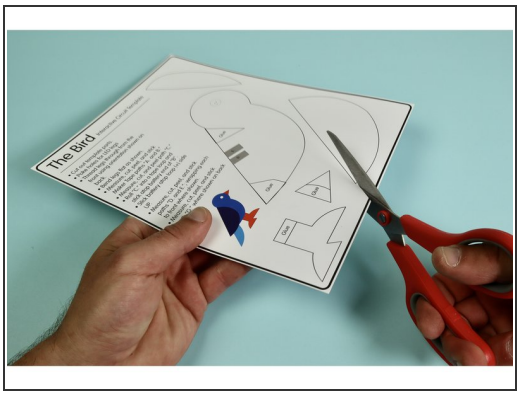
PARTS:

- Paper Circuits Kit (1)
- Printable Template (1)

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Step 1 — Gather Materials, Cut, and Color



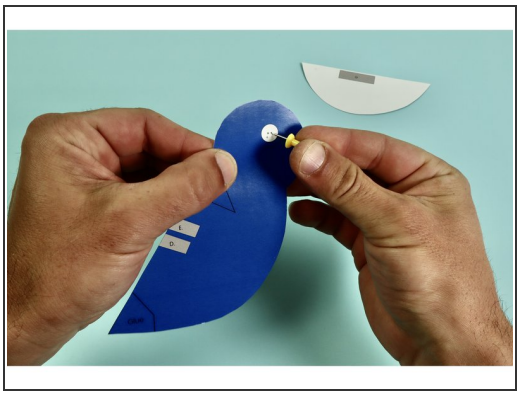
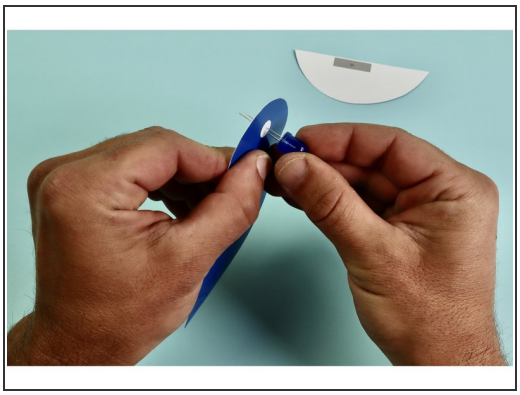




- **Gather materials** shown and **print** off the template. There are both blank and already colored versions of the template found at the bottom of the guide.
  - Printing the template on cardstock will give you a sturdy project.
  - **Cut out the five pieces** of your template and **color them as you wish** if you have chosen the black and white template.

⚠ If you want to use felt, craft foam, or any other type of material, print the template first. Then use the template to trace the pieces onto your material of choice and cut them out.

Step 2 — Add the LED

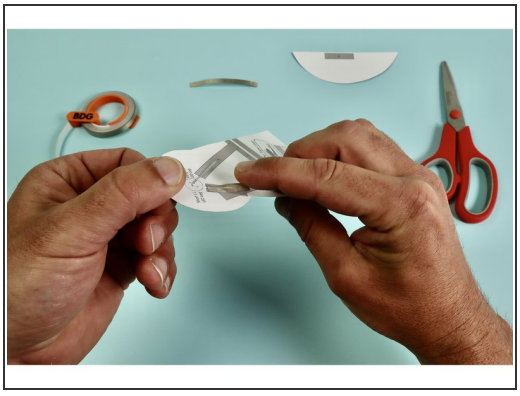




- Using a push pin **poke holes** through the front of the bird where the **LED** will go.
- Insert the **LED** making sure to orient the legs properly.

ⓘ The long leg of the **LED** is **Positive** and needs to go in the hole labeled with +. The short leg is **Negative** and needs to go in the hole labeled -.

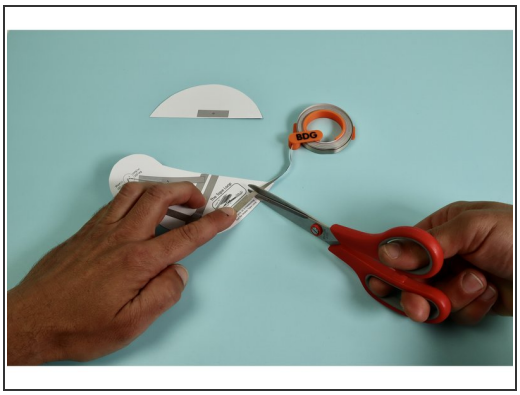
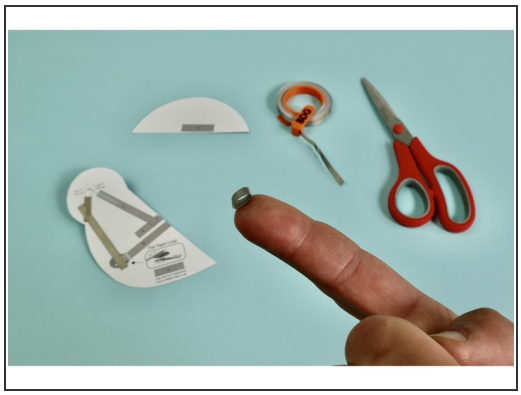
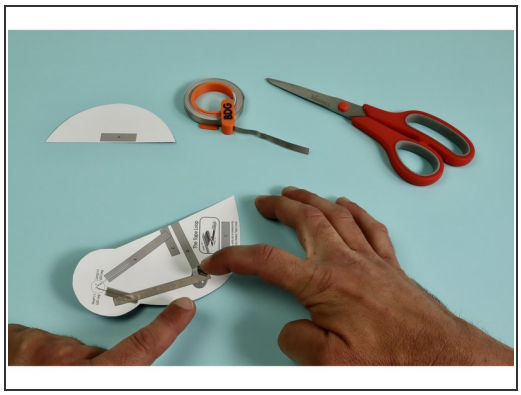
- Flip over the bird and bend the **LED** legs flat against the paper. Make sure to align the **LED** legs with the diagram on the back.

Step 3 — Add Maker Tape to 'A.' and 'B.'


- **Measure, cut, peel, and stick** a piece of Maker Tape down as indicated atop the letter **'A.'**
- The tape should hold down the Short LED Leg so it makes the electrical connection for our circuit.
- **Measure, cut, peel, and stick** a piece of Maker Tape down as indicated atop the letter **'B.'**

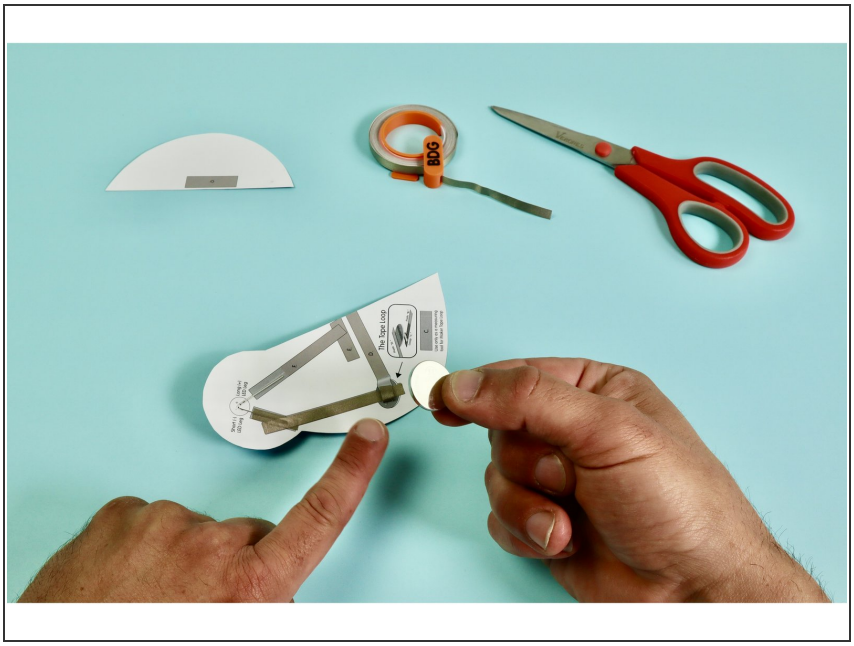
Step 4 — Add Maker Tape Loop 'C.'

- Use Maker Tape to create a **Tape Loop** (with the sticky side facing out) and stick it down at the bottom of tape path **'B.'**
- The **Tape Loop** should be about half the diameter of the Battery. (You can use the battery outline circle as a guide.)

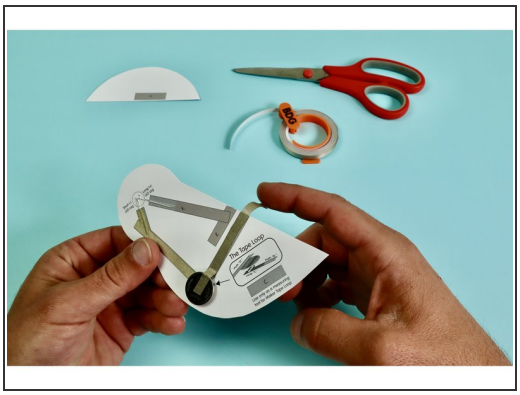
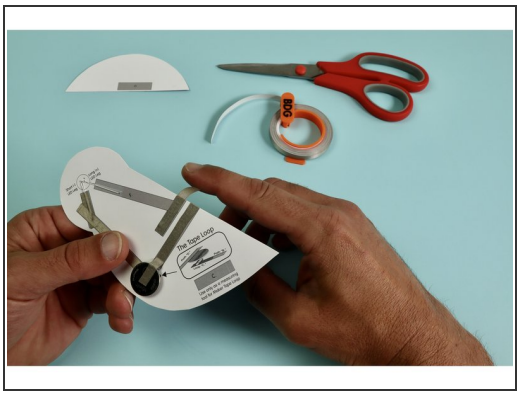
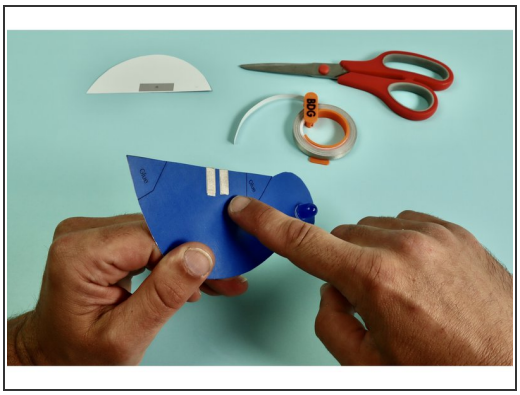
⚠ If the **Tape Loop** is too large it may short out the battery.

Step 5 — Add Battery to 'C.'



- Stick the **Battery** atop the Tape Loop '**C.**' with the **Positive** (+) Side up.
- The **Battery** should stick down to the Maker Tape securely and the tape will hold it in place.

Step 6 — Add Maker Tape to 'D.' and 'E.'

- **Measure, cut, peel, and stick** a piece of Maker Tape down as indicated atop the letter **'D.'** and press the tape down atop the Battery.
- **Measure, cut, peel, and stick** a piece of Maker Tape down as indicated atop the letter **'E.'**

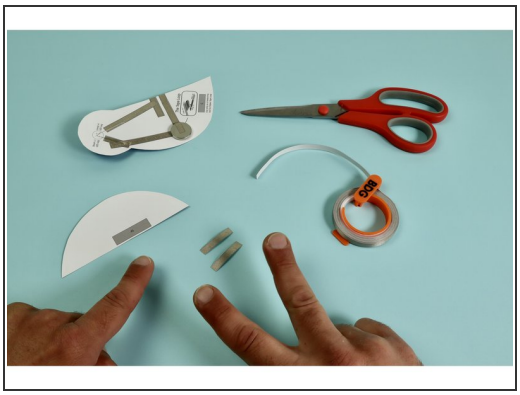
ⓘ Both Tape pieces **'D.'** and **'E.'** should wrap around the front side of the bird's body.

Step 7 — Add Maker Tape to 'F.'




- **Measure, cut, peel, and stick** a piece of Maker Tape down as indicated atop the letter **'F.'**
- The tape should hold down the **Long LED Leg** so it makes the electrical connection for our circuit.

Step 8 — Add Maker Tape to 'G.' on the wing

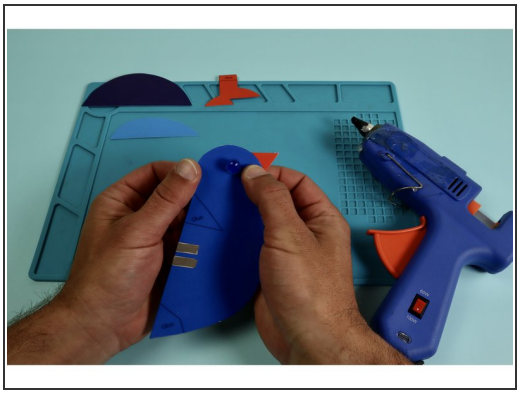
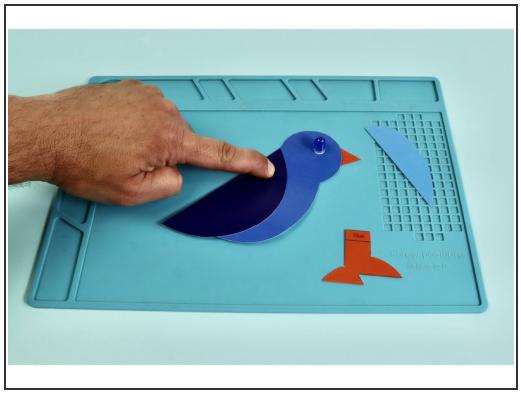
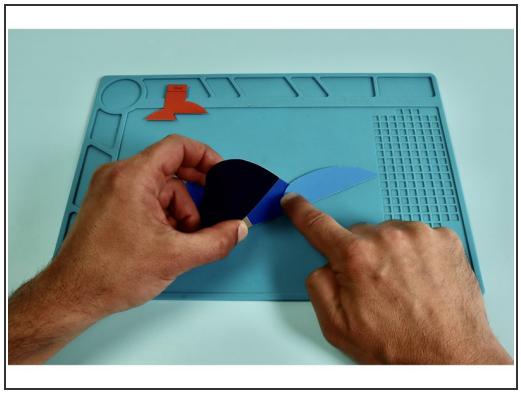




- **Measure, cut, peel, and stick** a piece of Maker Tape down as indicated atop the letter **'G.'** on the back side of the wing.

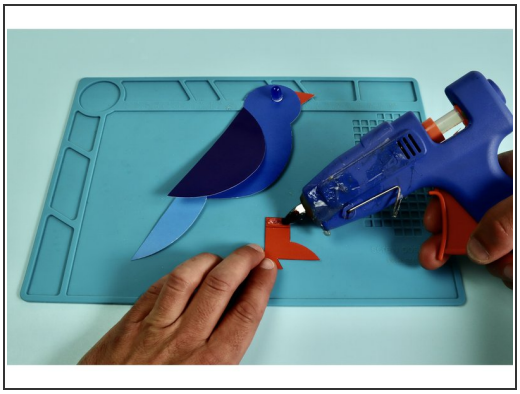
ⓘ This piece of Maker Tape will bridge the gap in the tape on the front side of the body.

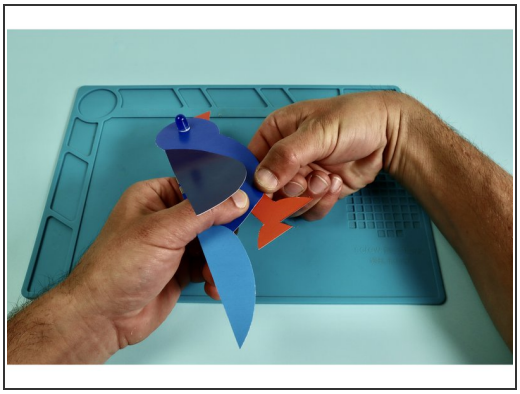
Step 9 — Assemble the bird

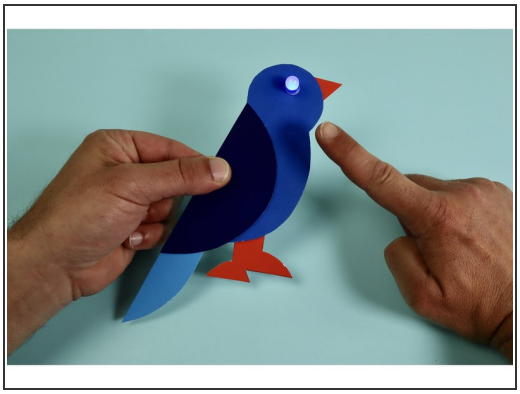




- **Use glue** to assemble the tail, wing, feet, and beak to the body.

Step 10 — Bird Assembly Continued

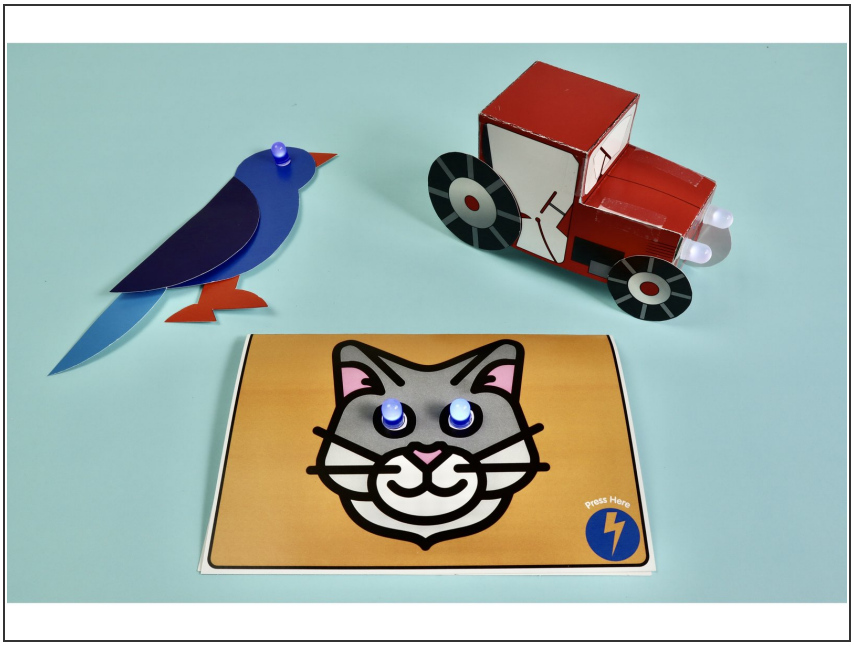






- Your bird is complete! **Test** your switch **by squeezing the wing** where the switch is located. The bird's eye should light up.

Step 11 — More Oscar and the Bird Projects!



- Make more Oscar and the Bird themed projects! We've got more paper circuit activities to choose from.
  - Oscar and the Bird: Cat Card
  - Oscar and the Bird: 3D LED Tractor