

# **Circuit Scepter**

Torch...wand...scepter... Whatever you care to call it; light the way with this customizable, paper and LED project!

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#### **INTRODUCTION**

Light the way with this customizable, paper and LED project!



# **TOOLS:**

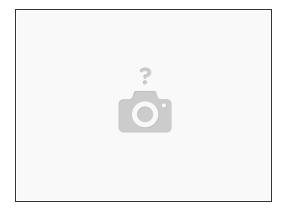
- Scissors (1)
- X-ACTO Knife (1)
- Hot Glue Gun (1)
- Clear Tape (1)
- Markers, Crayons, or Colored Pencils (1)



#### **PARTS:**

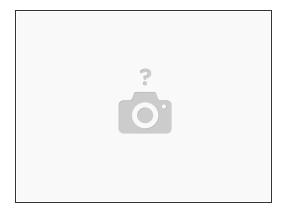
- Paper Circuits Kit (1)
- Printable Template (1)
- Tracing Paper (1)

#### Step 1 — Preparation



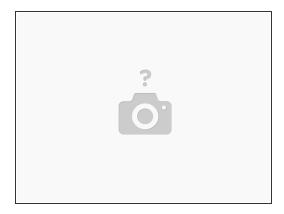
- Gather materials listed and print out the template you prefer (there are 2 circuit options) from the PDF listed at the bottom of this guide.
- Cut out the project variation you chose. Note: A complete project will include your choice of light cube topper and a scepter handle. Disregard switch on handle document if you are not assembling the cube with switch option.

#### Step 2 — Circuit Assembly and Panel Design



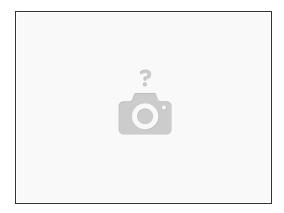
- With project cut out, assemble the circuit using the instructions on the template.
- Using the black square tracing template, trace and cut out 4 panels from a sheet of tracing paper, thin copy paper or velum.
- Use markers to create fun, colorful designs on each of the 4 translucent panels.

# Step 3 — Add colored panels and Form Cube



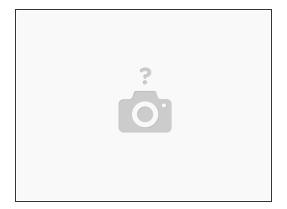
- Place hot glue on the inside perimeter of each of the "frames" of your flattened cube and stick each of your colorful panels in place. Work one panel at-a-time! Note: One of your panels will go OVER the circuit paths that run from lid to bottom.
- Use a ruler to help you to pre-fold where each of the panels meet.
- Tape each edge together with clear tape to form and secure the cube shape. Note: If you are assembling the non-switch variation, your circuit should be ON right now. If you are assembling the switch variation cube, there is still assembly required after attaching the handle in order to turn the LED on.

#### Step 4 — Assemble the handle and attach cube



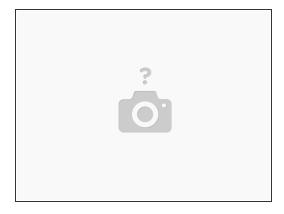
- Find the handle assembly that you should have already cut out. Use a ruler to pre-fold where shown on the template.
- Use one long piece of clear tape to secure the two edges together, forming the scepter handle. Bend the four tabs at the top of the handle downward/outward as shown on the diagram. These will be attachment points for the underside of the cube topper.
- Apply hot glue to the four tabs of the handle and press the bottom of the cube on top to attach.

# Step 5 — Switch Paths Preparation



- If you are making the variation with a switch, press Maker Tape paths that extend to the outside of the cube in place to the underside of the cube.
- Using two new lengths of Maker Tape, extend the two paths on the underside of the cube
   first TO the handle and then down it. Note: these two paths should stay apart from one another.

# **Step 6** — Create and Attach Paper Lever Switch



- Cut paper lever switch from bottom left corner of switch instruction sheet and apply Maker Tape to it as shown.
- Attach the one sticky portion of the switch to the handle path as shown. When positioned
  correctly, the other end of the switch should be able to contact the OTHER path when pressure is
  applied.
- Your Circuit Scepter should light up when you grab the handle and turn off when you put the project down!

Your future is bright with this sweet LED torch in hand!