



LEGO LED Wand

Combine a handful of LEGO pieces and some basic Crazy Circuits components to create this LED wand operated by pushbutton!

Written By: Andy Wallus



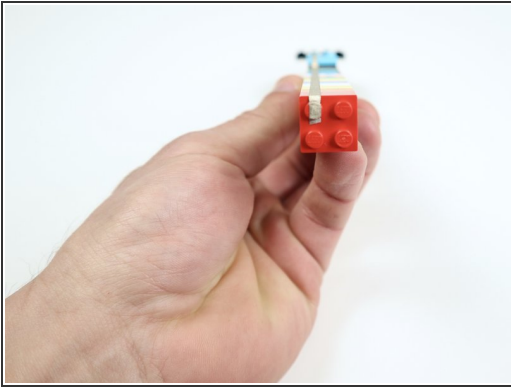
 **TOOLS:**

- [Scissors](#) (1)

 **PARTS:**

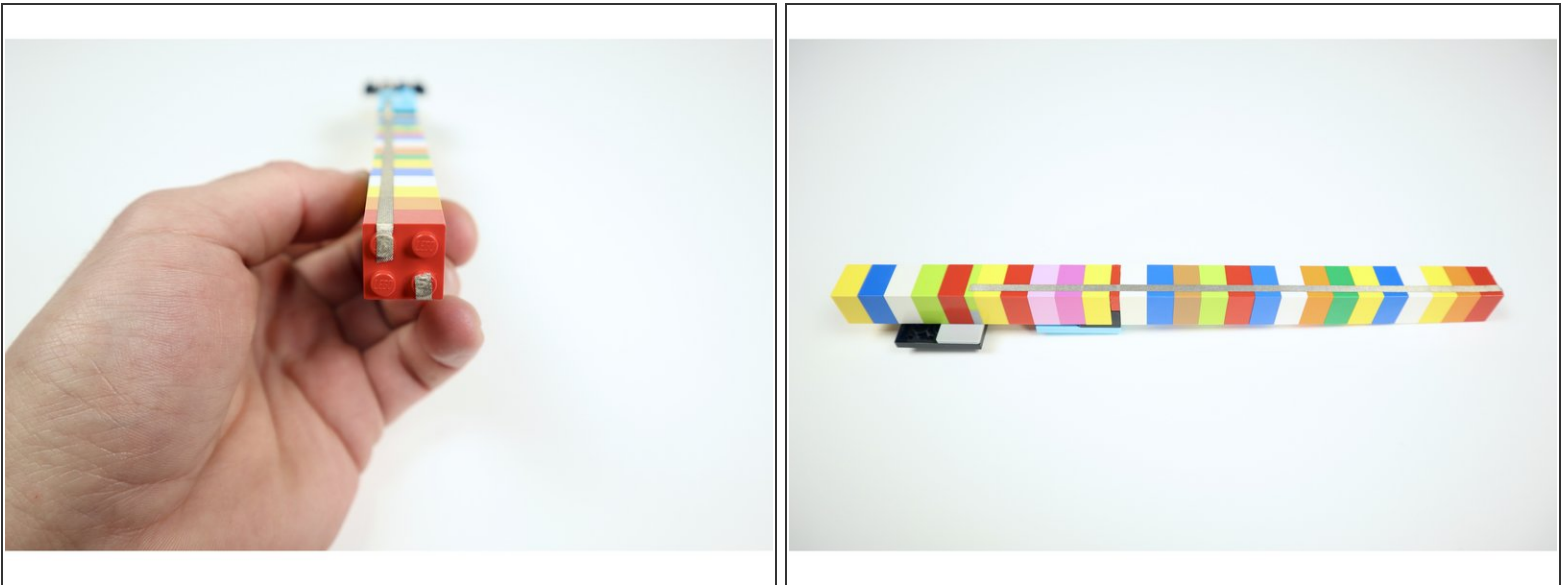
- [Crazy Circuits LED Chip](#) (1)
- [Crazy Circuits Coin Cell Battery Holder](#) (1)
- [Crazy Circuits Jumbo Pushbutton Chip](#) (1)
- [CR2032 Battery](#) (1)
- [Maker Tape](#) (1)
1/8" Wide
- [LEGO 1x2/2x2 Bracket Plate](#) (1)
- [LEGO 1x2/2x4 Bracket Plate](#) (1)
- [LEGO 1x2 Plate](#) (2)
- [LEGO 2x2 Brick](#) (25)
- [LEGO 2x4 plate](#) (1)
- [LEGO 4x4 plate](#) (1)

Step 1 — Parts 1 and 2 of tape path 1



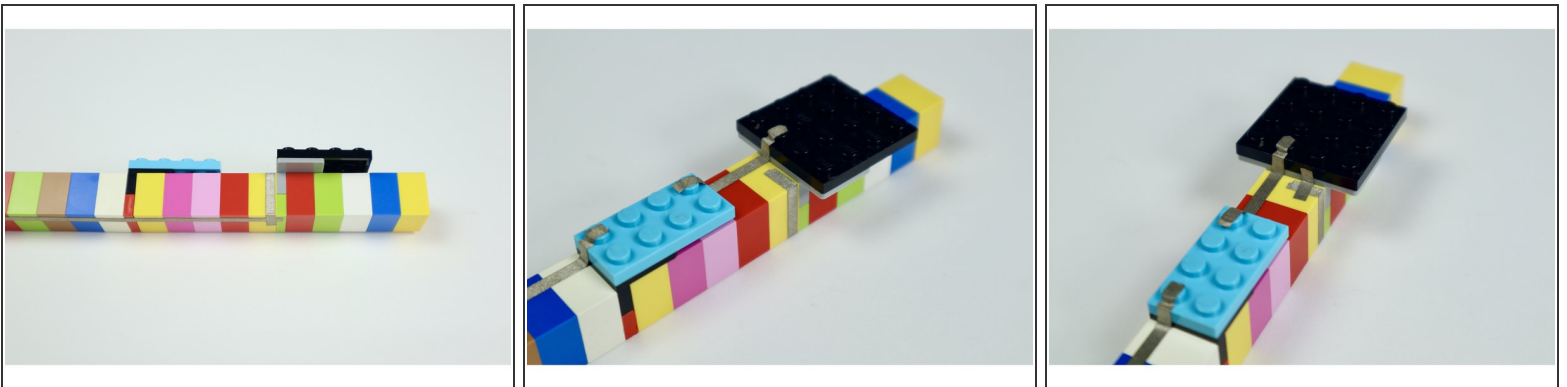
- With a completed wand built, **start a piece of 1/8" Maker Tape at the LEGO stud shown in photo 1.**
- **Guide and press that piece of tape all the way down the length of the wand as shown.** It should end at the first lego stud on the 2x4 plate as pictured in photo 2.
- **Skip two LEGO studs on that 2x4 plate and start another Maker Tape path that reaches the first LEGO stud in line with it atop the 4x4 plate.** This is shown in photo 3.

Step 2 — Section 1 of tape path 2



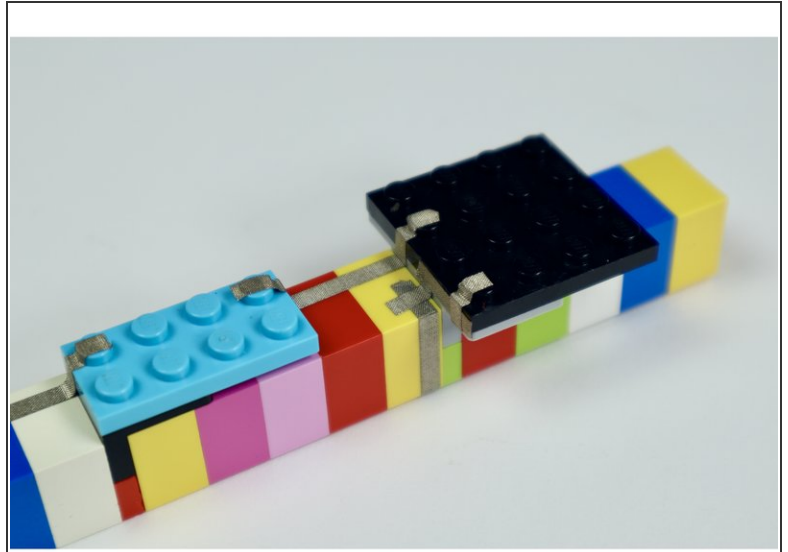
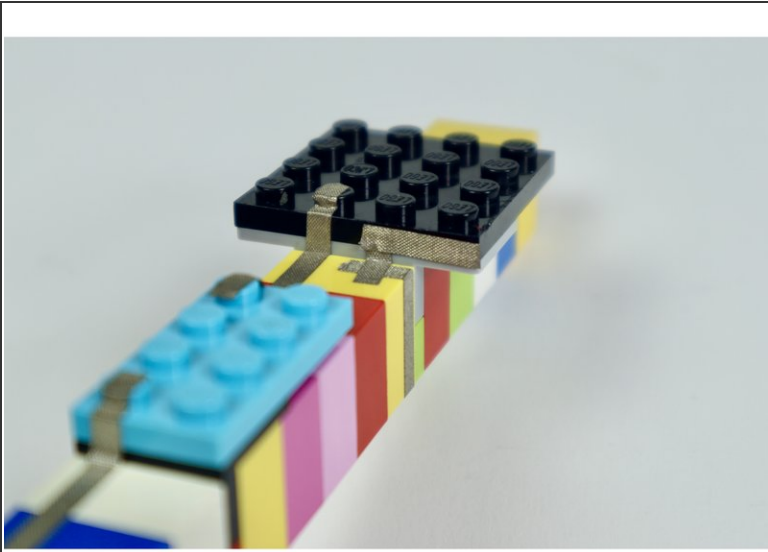
- Start a new Maker Tape path atop the LEGO stud shown in photo 1 .
- Guide and press that same tape segment down the length of the wand on the side **OPPOSITE** your already existing tape. It should stop where shown in photo 2.

Step 3 — Twists and Turns



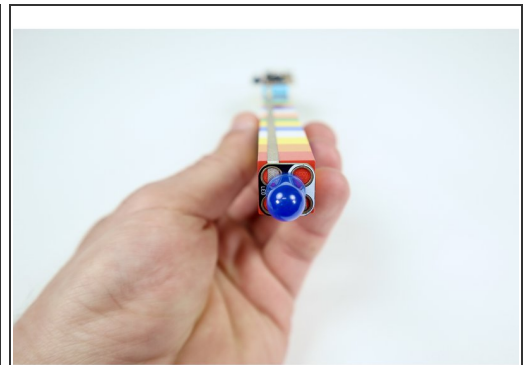
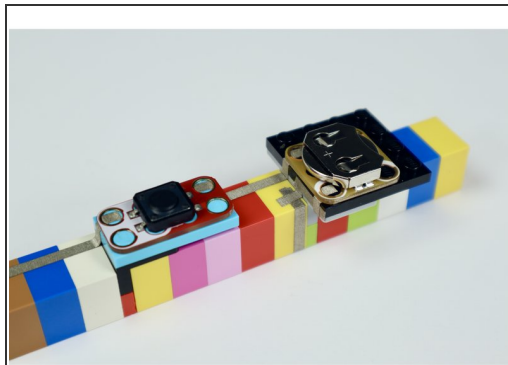
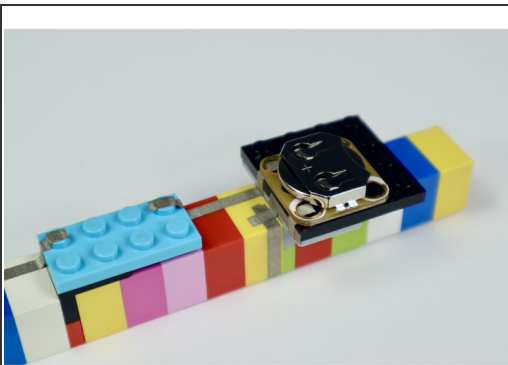
- **NOTE:** The following 4 tape paths are small. Take your time and do them neatly so they do not contact the tape from the opposite side!
- Starting with photo 1 and ending with the photos in the next guide step, measure, cut peel and stick the remaining 4 tape paths where shown.

Step 4 — Twists and turns (continued)



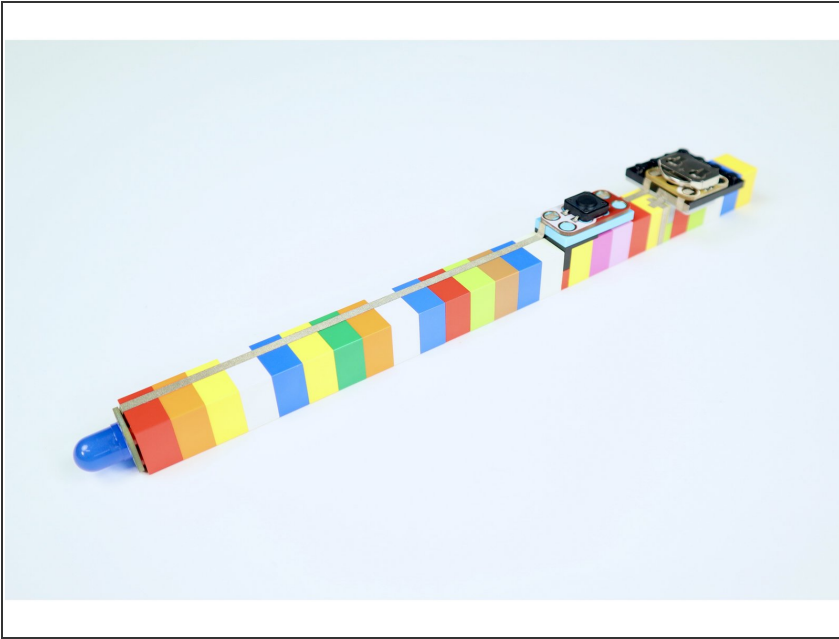
- If you completed these last 4 small tape paths correctly, **the end of your last segment should reach the first LEGO stud of the 4x4 LEGO plate with one stud-worth of space between it and the neighboring path.**

Step 5 — Add circuit components



- **Taking care to orient each component as shown in the photos at left and press the battery holder, pushbutton and LED into place.**

Step 6 — Install battery and test



- **Here's what your finished wand should look like.** Insert a CR2032 battery, hold by the battery holder end and press the pushbutton with your thumb to light the LED at the end!