## **Paper Circuit Cards**

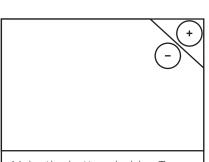
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## **Materials**

- Card stock
- 1 LED
- Copper tape
- 3V coin cell battery (e.g. Clear tape CR2032, CR2016, CR1220) • Decorating
- Pencil
- Needle
- Scissors

  - supplies





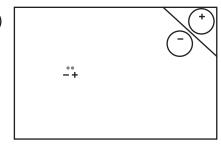
Make the battery holder. Trace the battery twice in the corner and mark the inner circle as (-) and outer circle as (+). Fold the corner inwards on the marked line





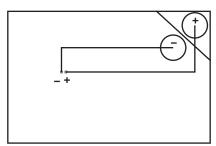
Design the front of the card. Think about where you want to place the LED, and indicate with two dots for each LED leg. Use a needle to poke two holes.





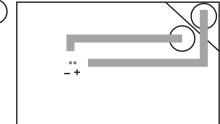
Open the card up and label positive and negative ends for the





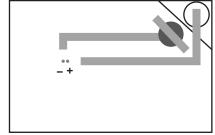
Mark a path from the centre of the positive end of the battery to the positive hole for the LED. Make a corresponding path for the negative side of the battery to the negative hole for the LED.



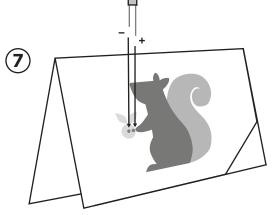


Trace the path with copper tape. Make sure to start taping from the centre of the battery circles. Do not cover the holes for the LEDs.



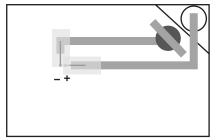


Place the battery negative side down on the negative circle. Attach with a piece of copper tape. Make sure the tape does not overlap with other parts of the circuit.



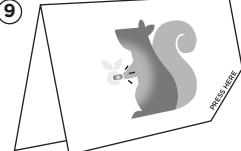
Stick the LED legs through the front of the card.





Open up the card and flatten the LED legs so they touch the ends of the circuit. Secure with some clear tape. It's very important that the LED legs have a good connection to the copper tape.





Finally, test your card! Fold the corner back inside. Close your card and press down on the corner. Ta-da! Unfold the corner when you are not using your card.