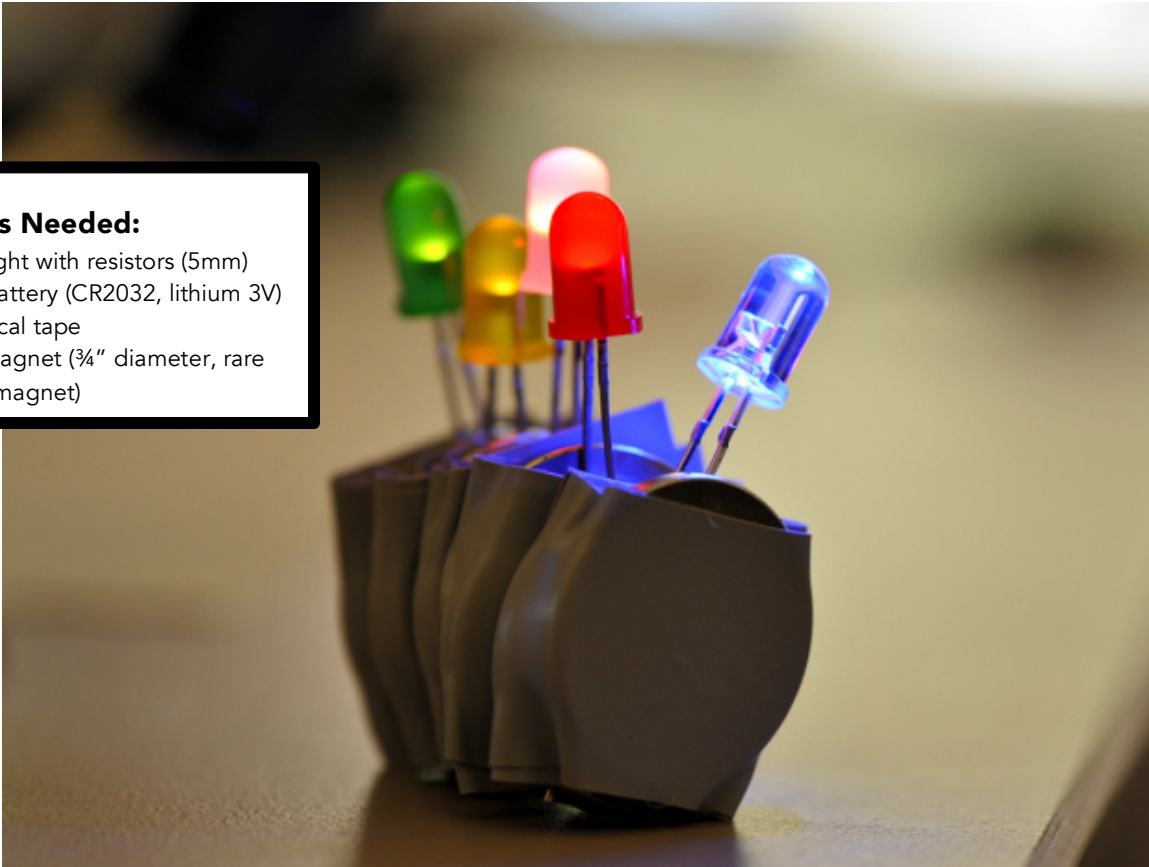


Make Your Own LED Throwie

Materials Needed:

- LED light with resistors (5mm)
- coin battery (CR2032, lithium 3V)
- electrical tape
- disc magnet ($\frac{3}{4}$ " diameter, rare earth magnet)



1. Pinch the LED's leads to the sides of the battery, with the longer lead (the anode) touching the battery's positive (+) terminal, and the shorter lead (cathode) touching negative (-). It should light up.
2. Cut a 7" length of strapping tape or electrical tape, and wrap the leads tightly to the battery so the LED does not flicker. Wrap once around both sides of the battery.
3. Place the magnet on the positive side of the battery and continue wrapping tightly.
4. The battery's positive contact surface extends around the edges of the battery, so don't let the short lead (cathode) touch it or you'll short the circuit.
5. That's it! You're ready to throw it and watch it stick to any ferro-magnetic surface. Throw it up high and in quantity to impress your friends! Take a picture of it being thrown and witness a time-lapse light show!

(from MAKE Projects: <http://makezine.com/projects/extreme-led-throwies/>)

Dr. Shaunna Smith
sfs36@txstate.edu
Texas State University