

/actuating

ARC 593: Code and Space

Fall 2016

Instructor: Mark Shepard

TA: Leonardo Aranda

actuating

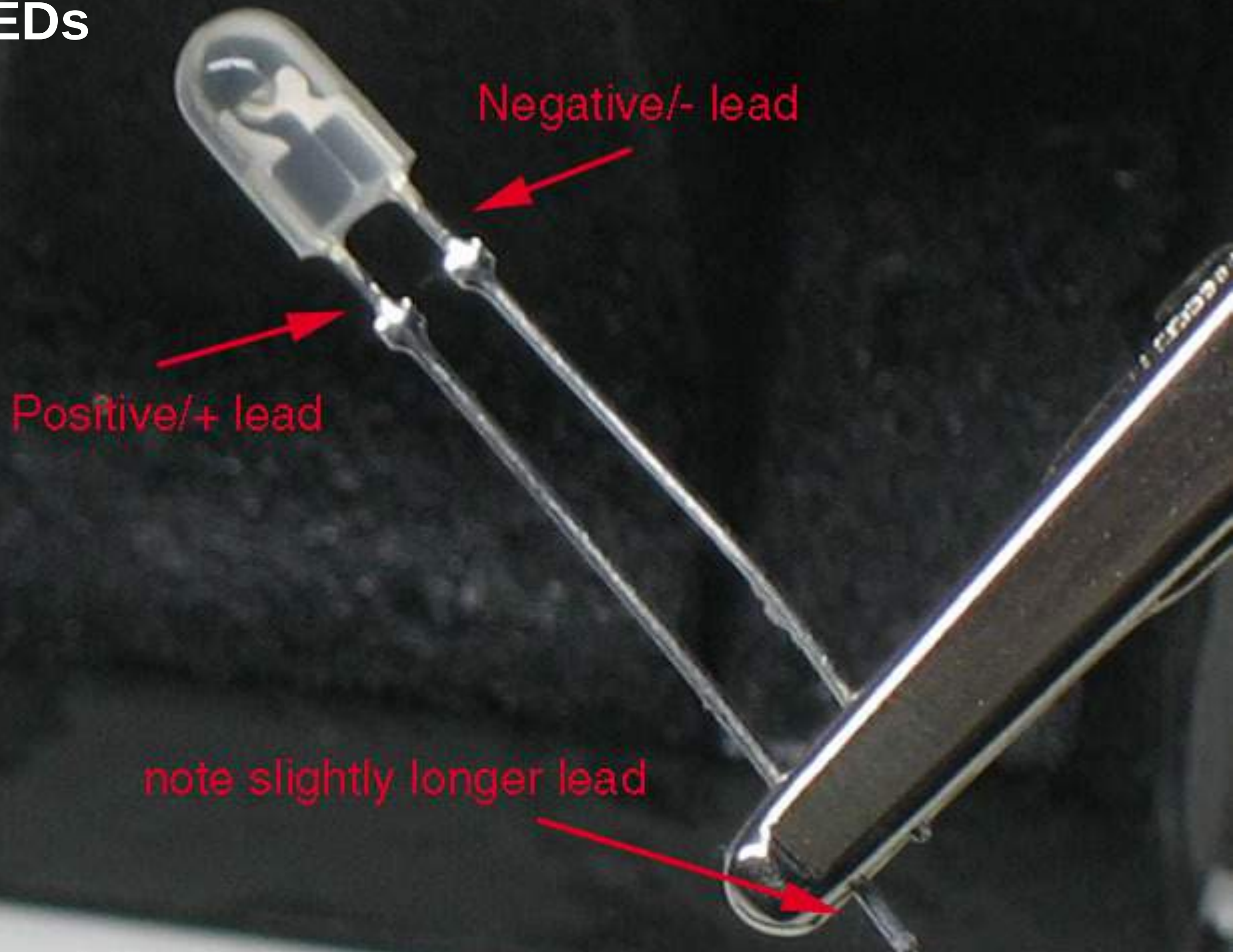
- Light - LEDs, incandescent bulbs, electroluminescent wire
- Sound - piezos, audio amplifiers and speakers, arduino sound shields
- Motion - motors - DC, servos, steppers, shape memory alloys

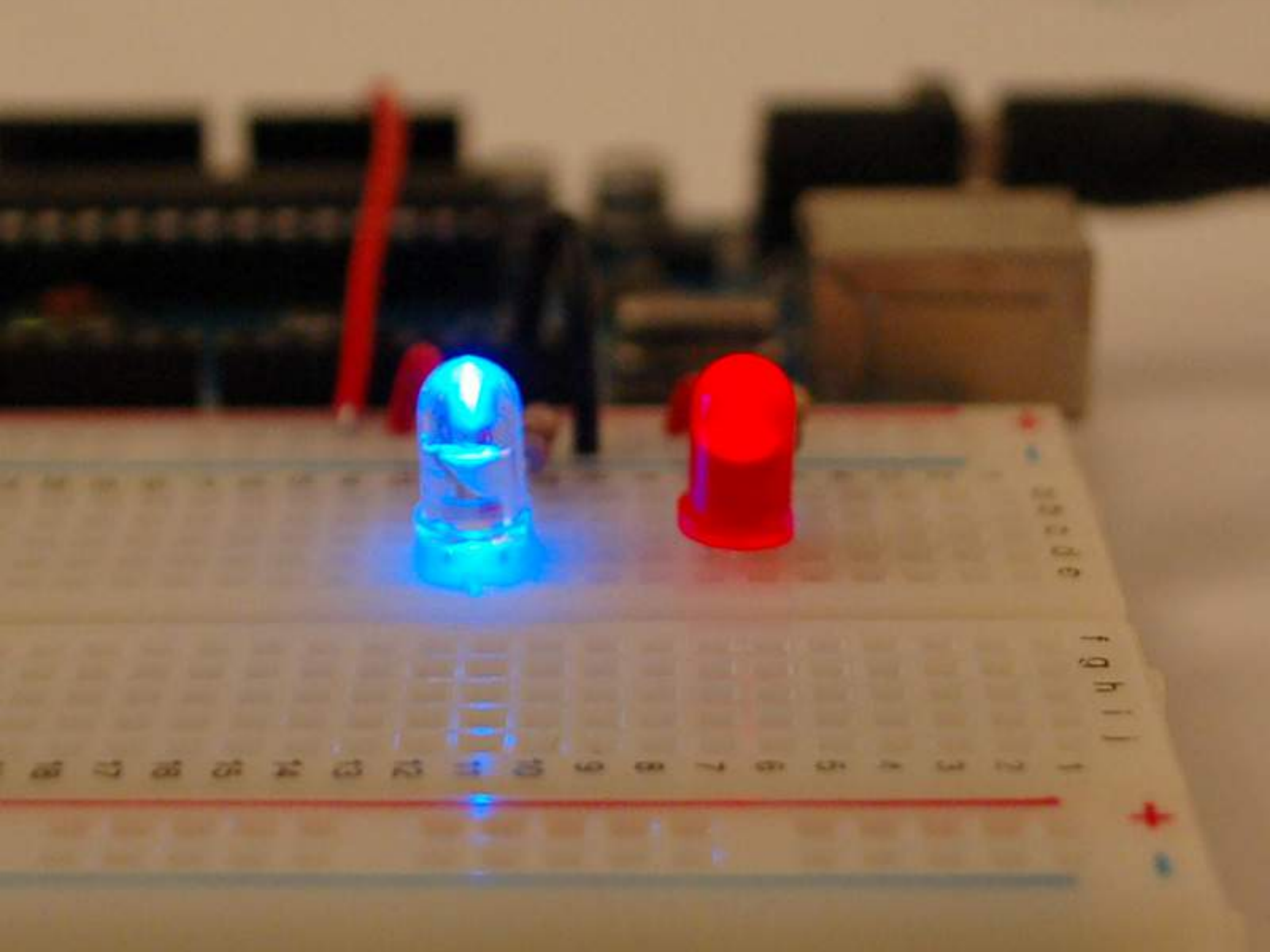
light

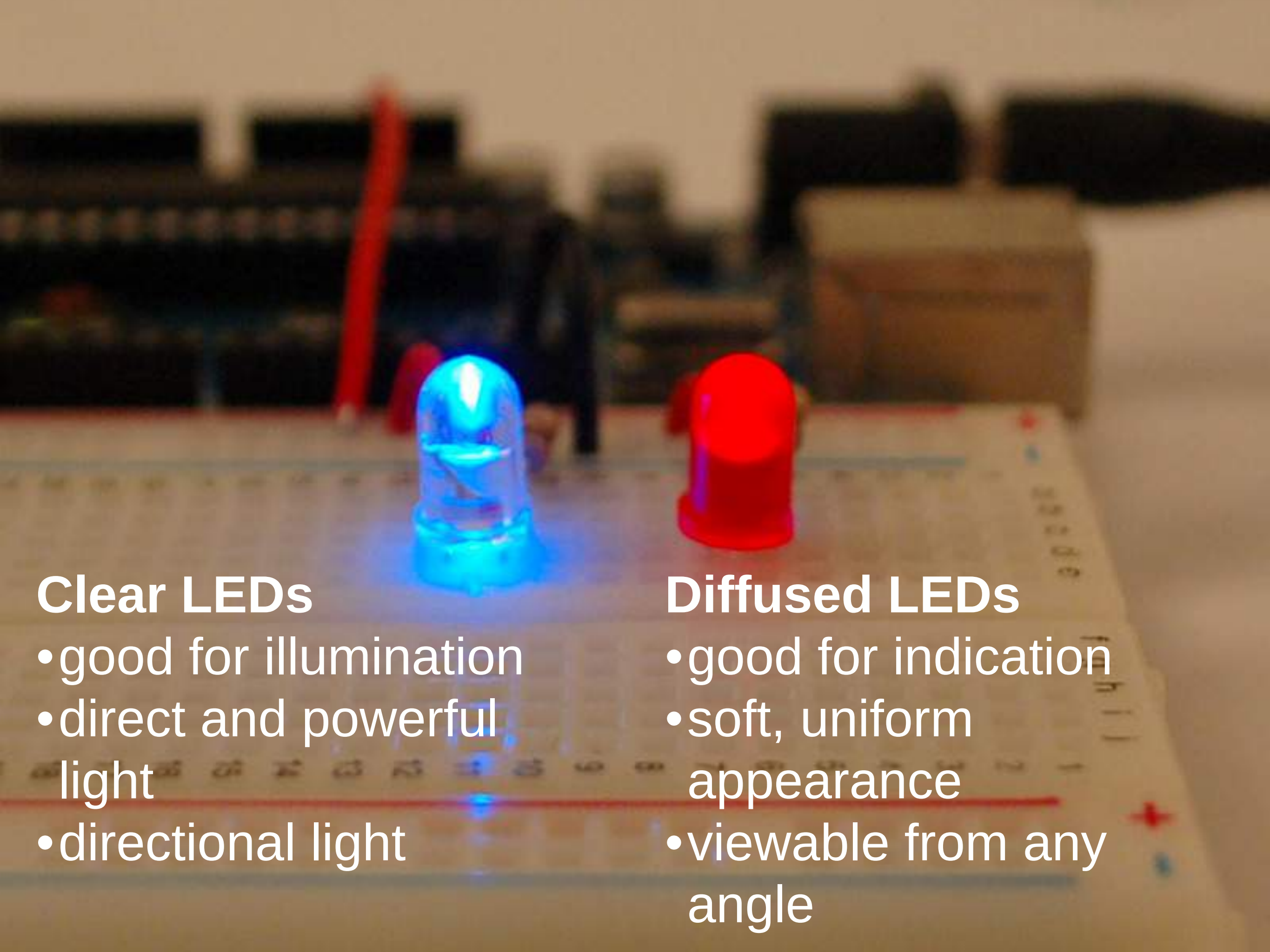
LEDs



LEDs





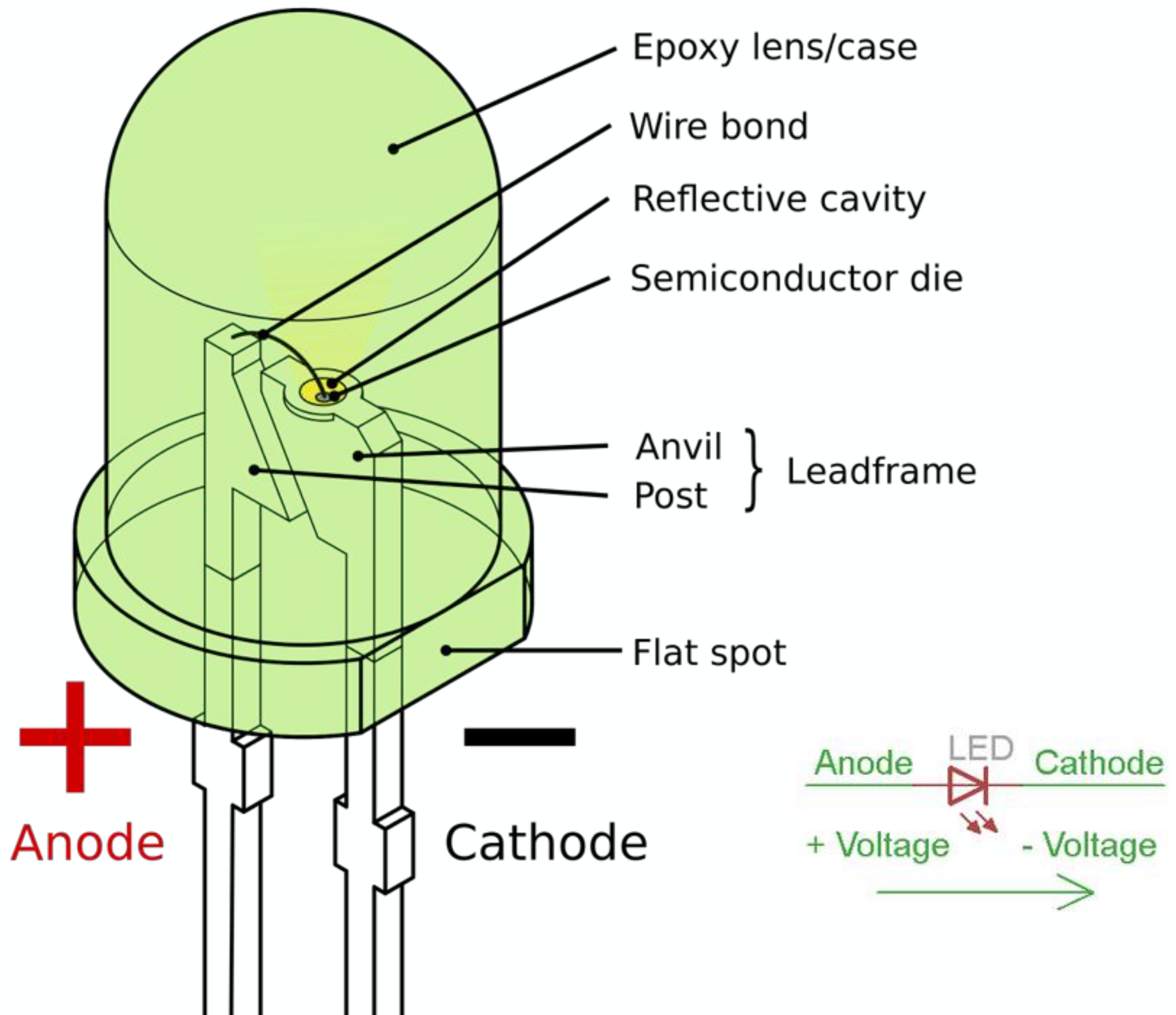


Clear LEDs

- good for illumination
- direct and powerful light
- directional light

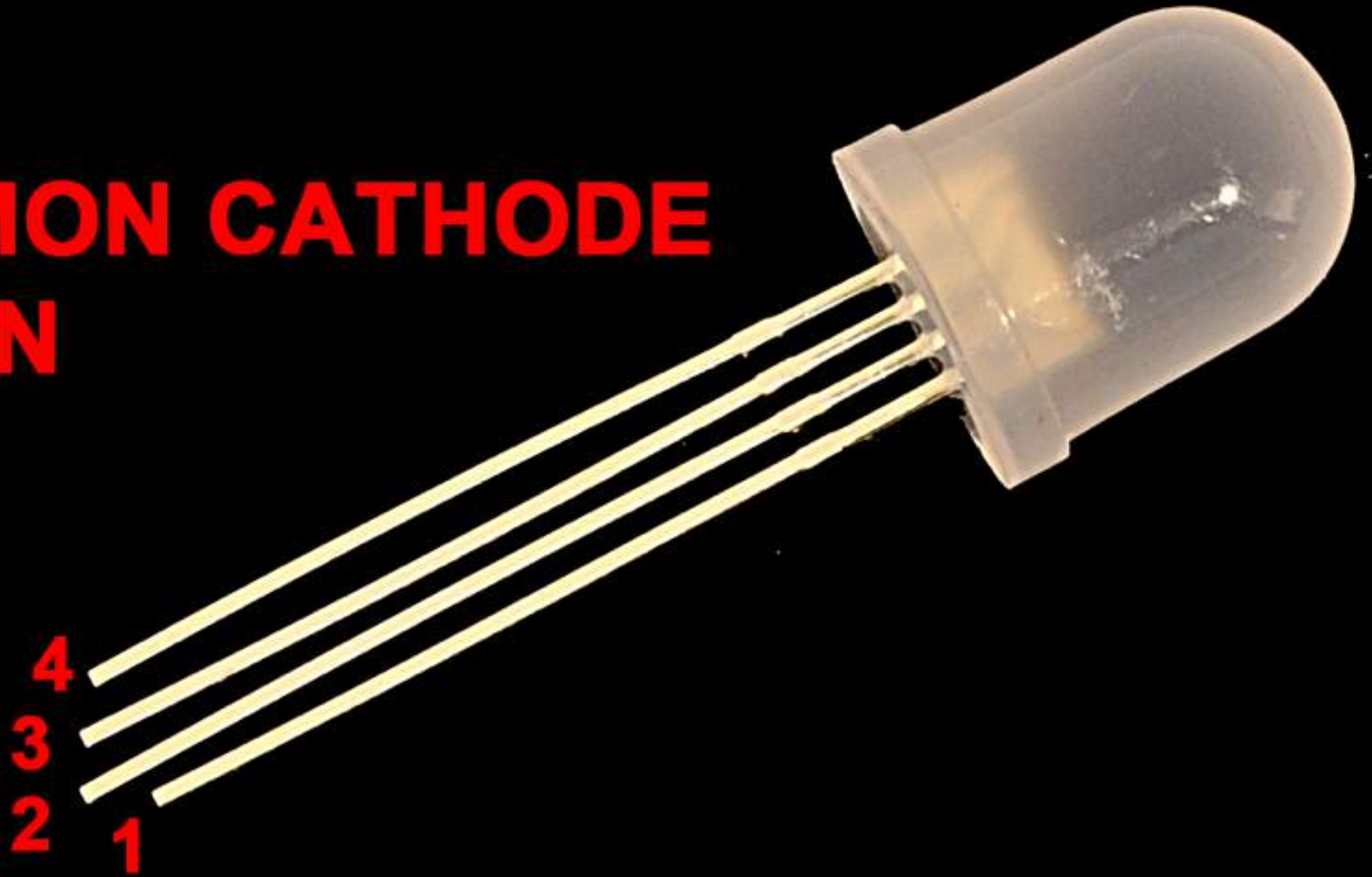
Diffused LEDs

- good for indication
- soft, uniform appearance
- viewable from any angle



RGB LEDs

- 1. RED**
- 2. COMMON CATHODE**
- 3. GREEN**
- 4. BLUE**



LED strips



LED strips



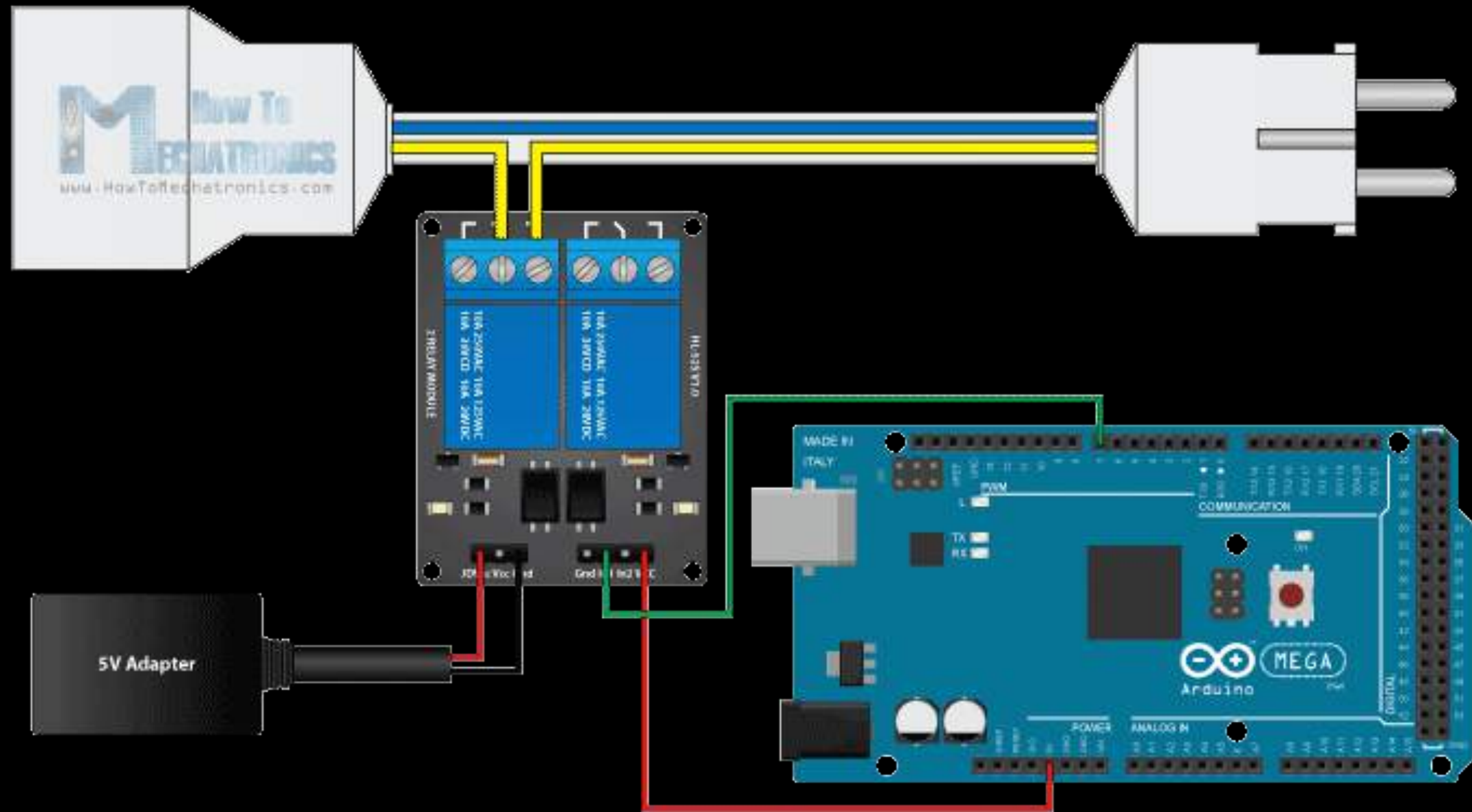
Controlling High Voltage Lighting

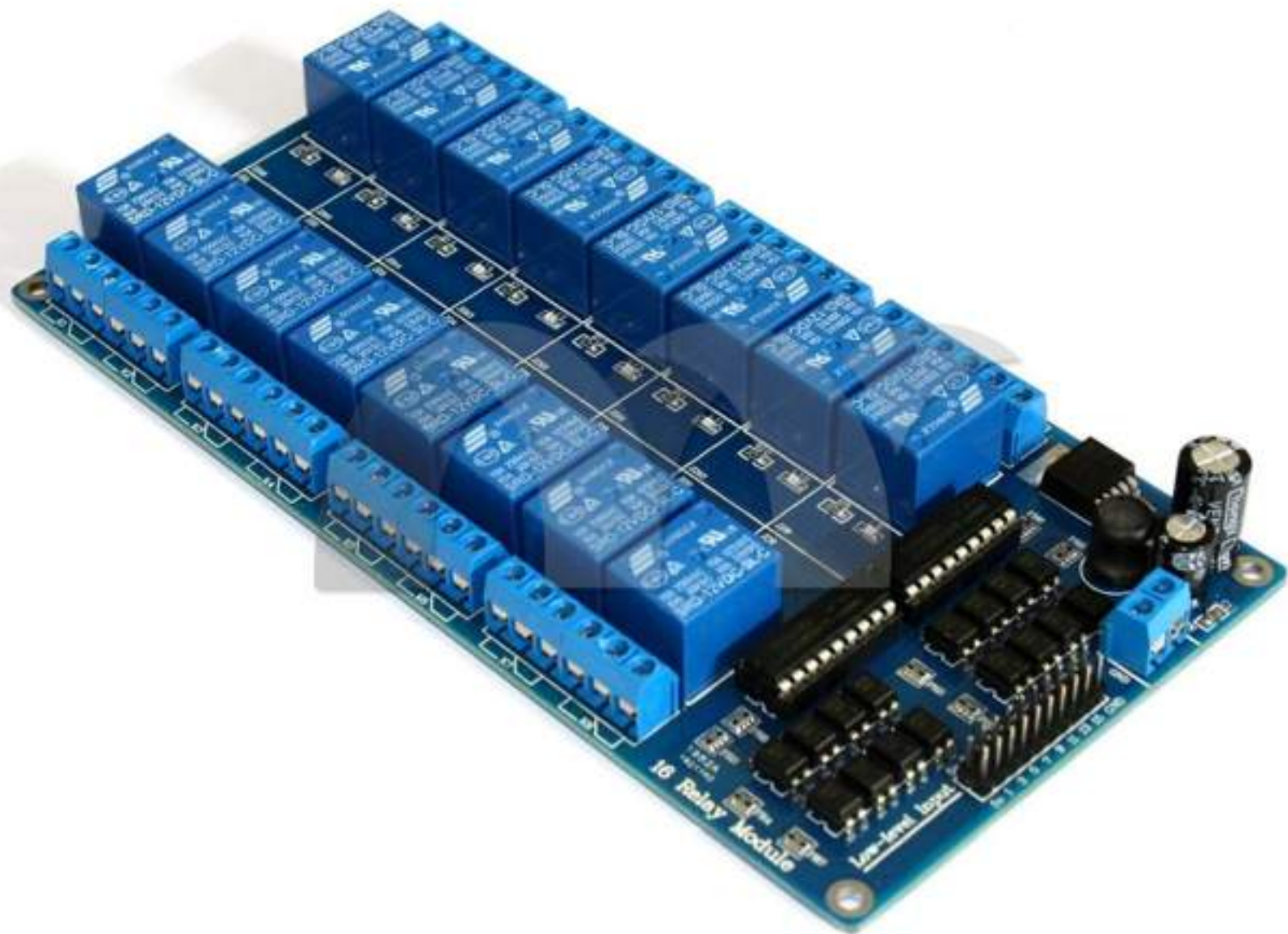


Kunsthau Graz / BIX facade, Peter Cook and Realities United



Relays





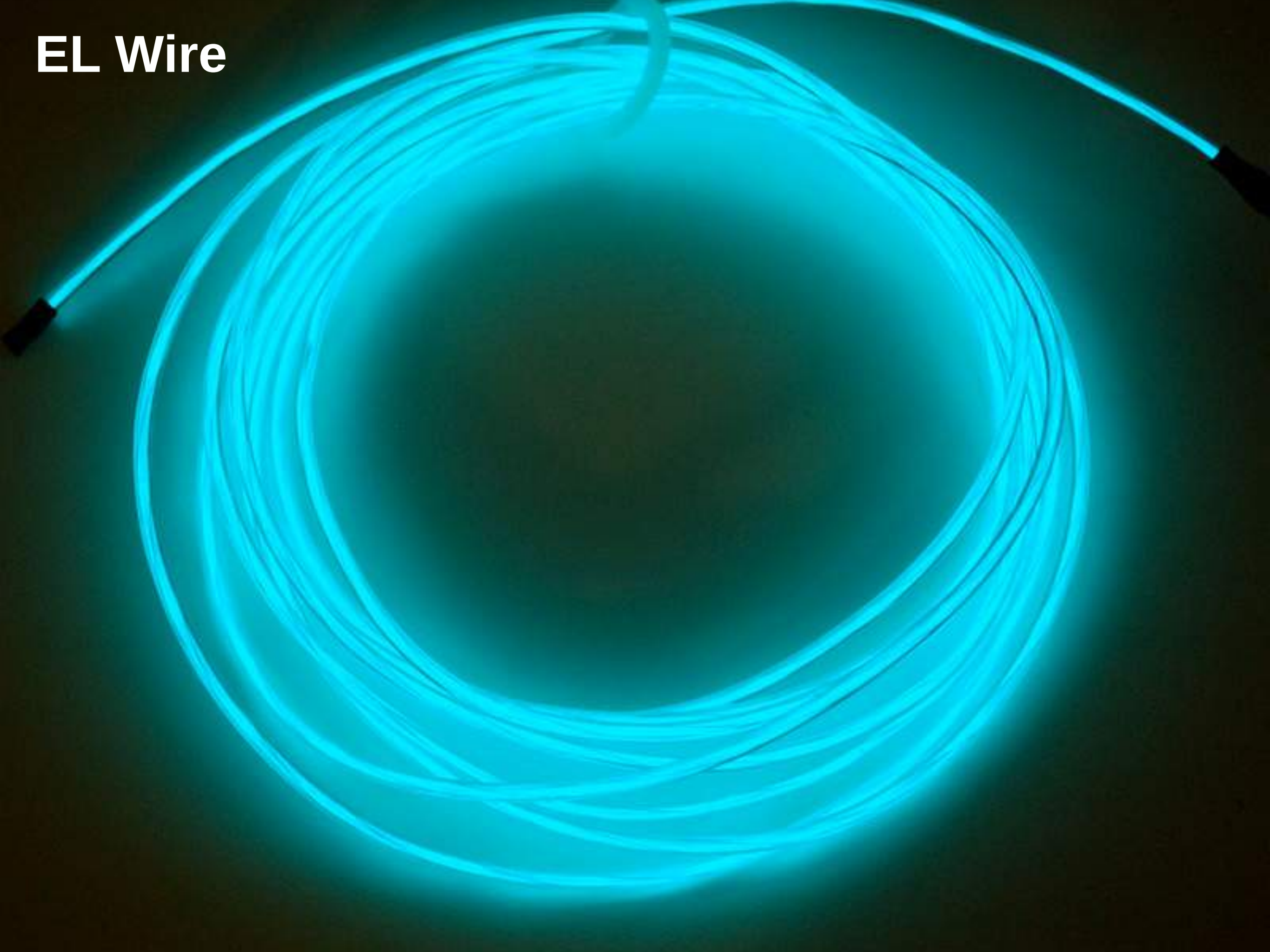


Blinkenlights, Chaos Computer Club, Berlin



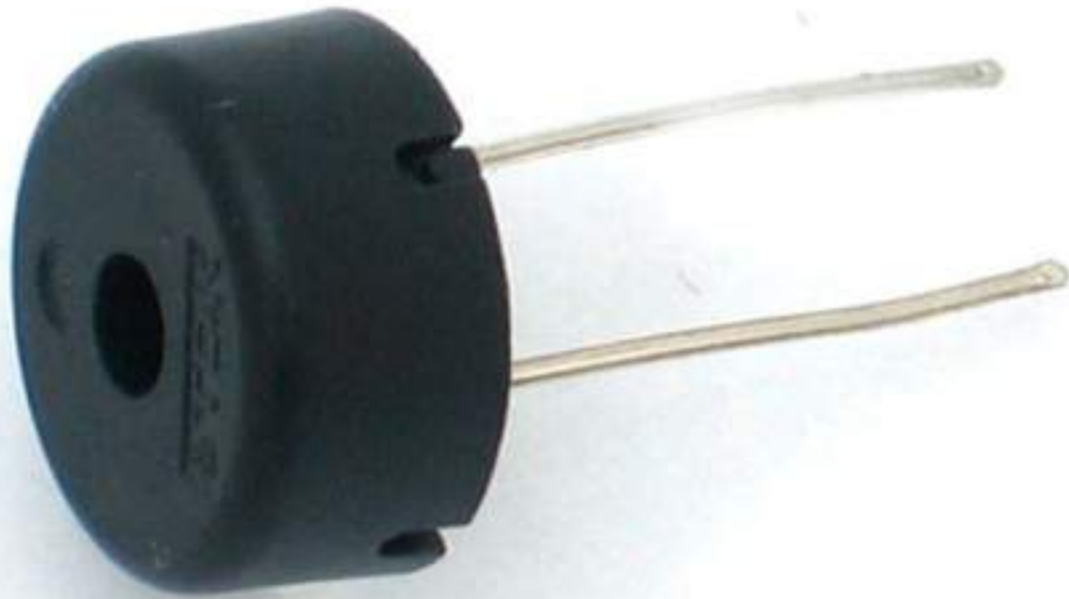


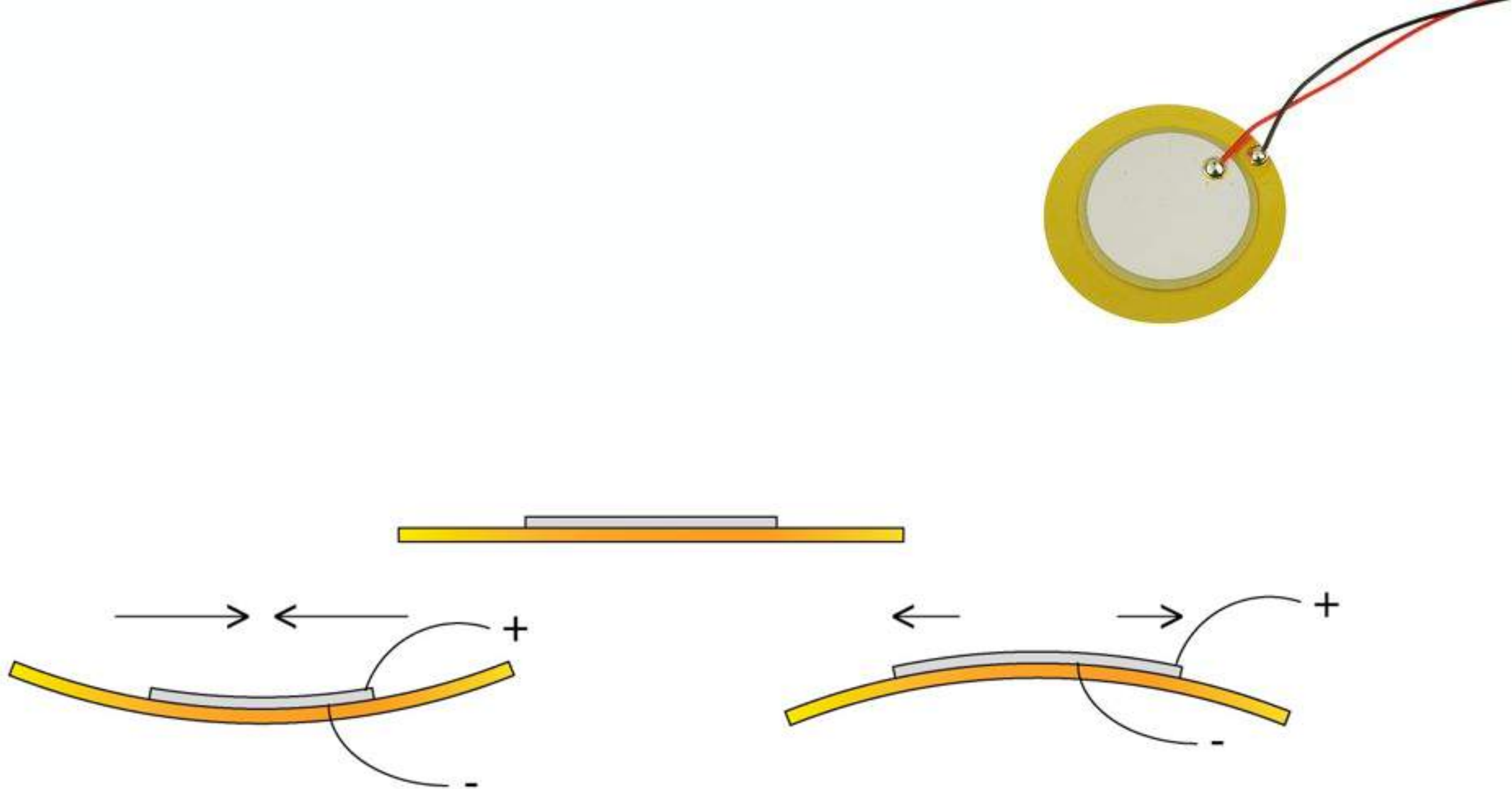
EL Wire



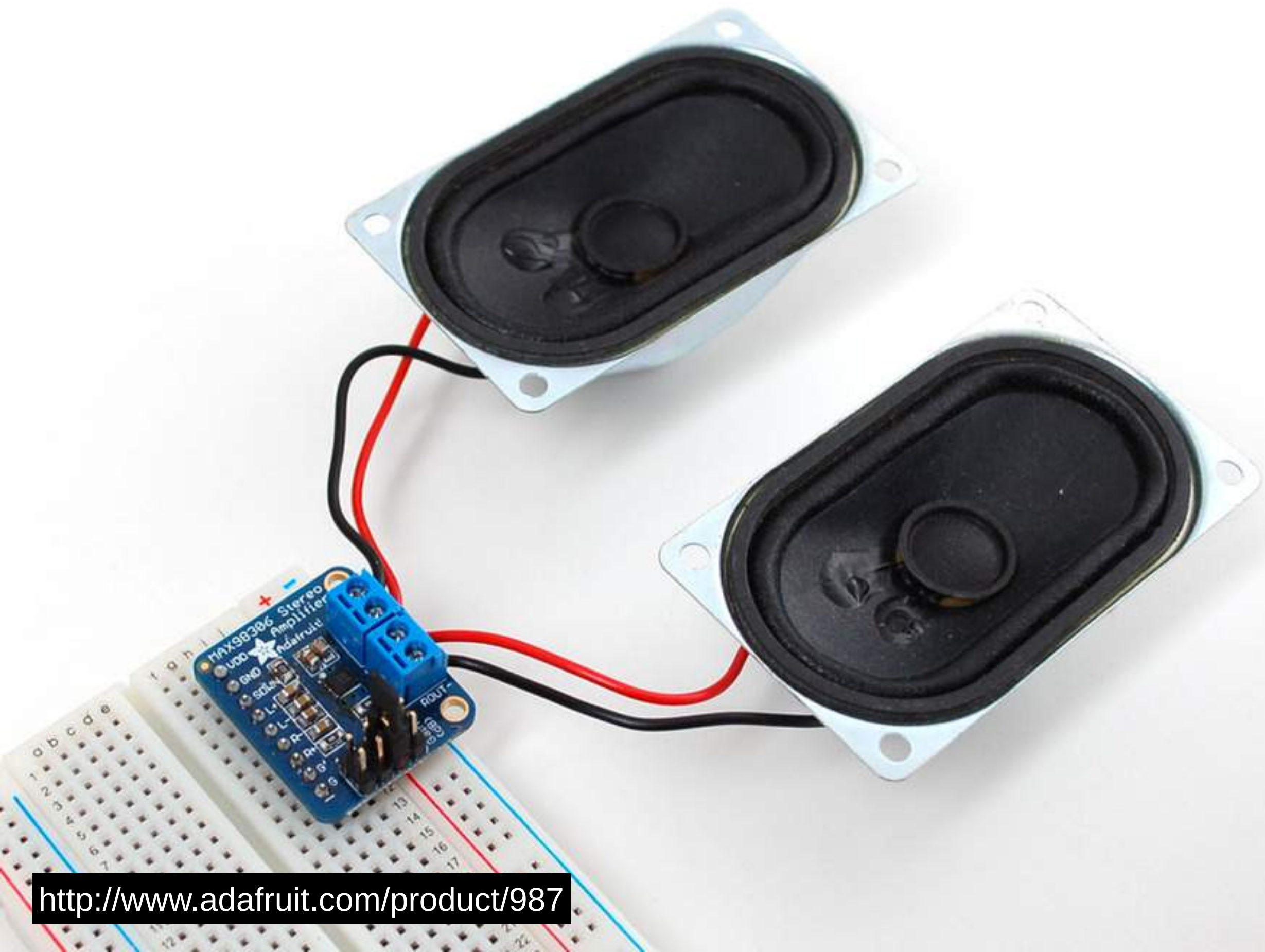
sound

Piezo

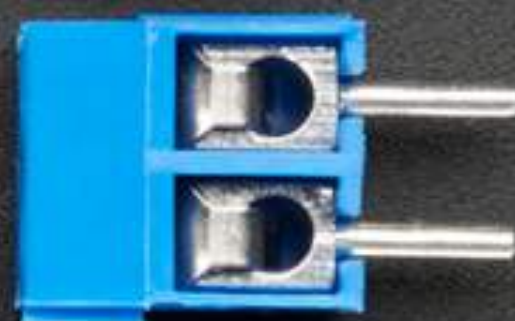
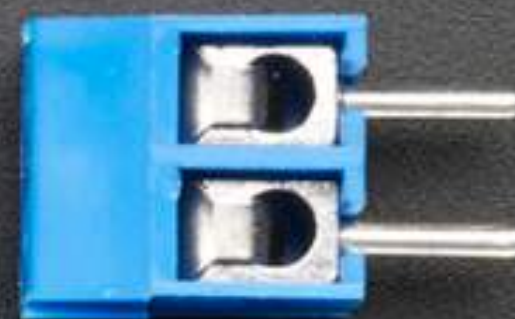
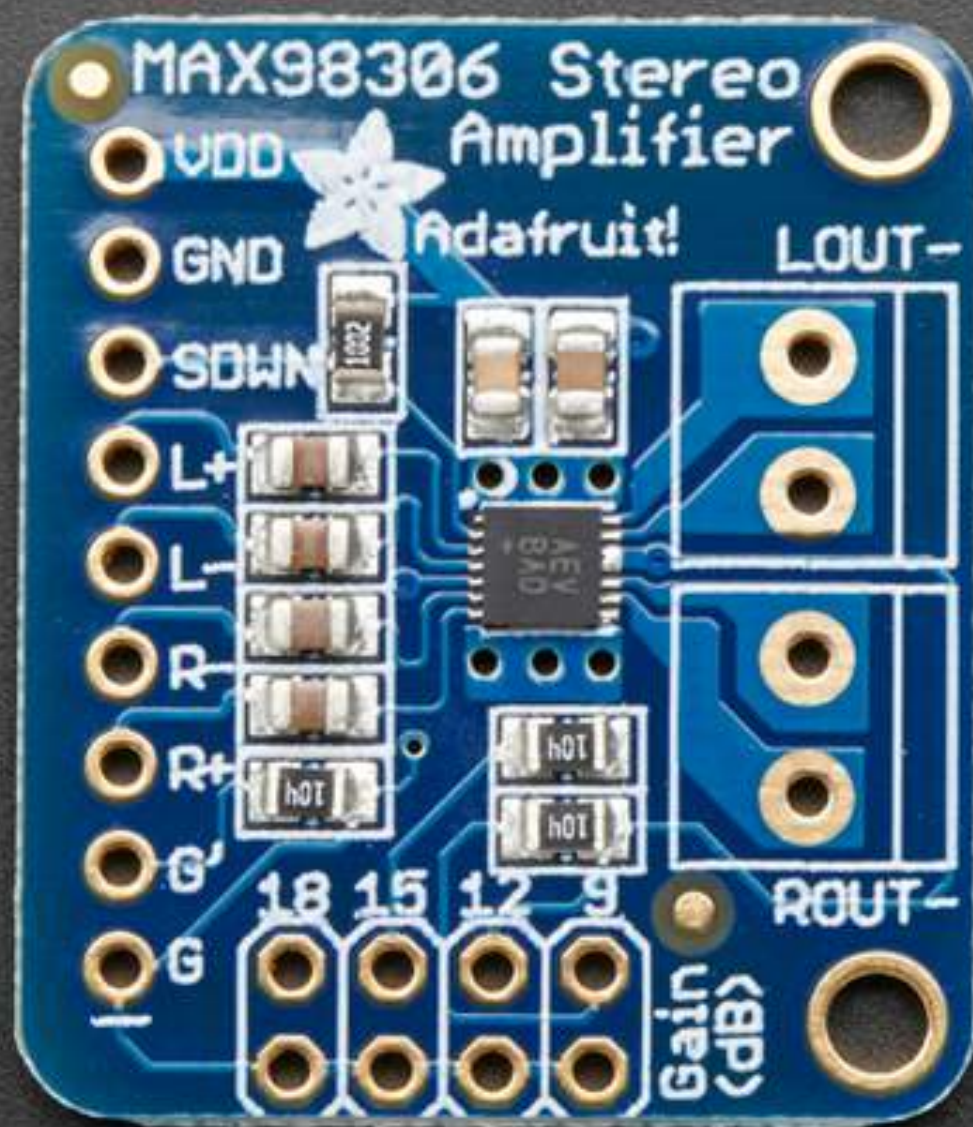


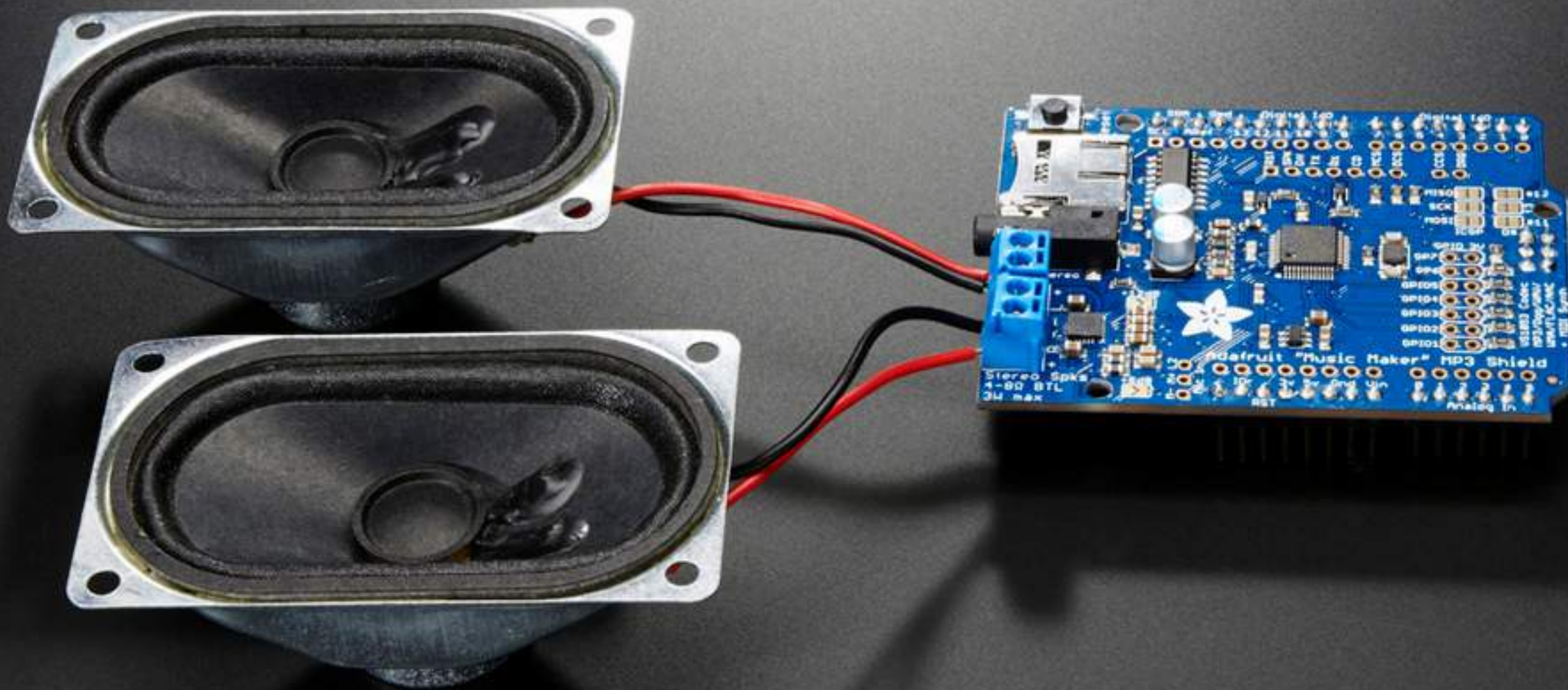


Piezoelectric plate used to convert audio signal to sound waves



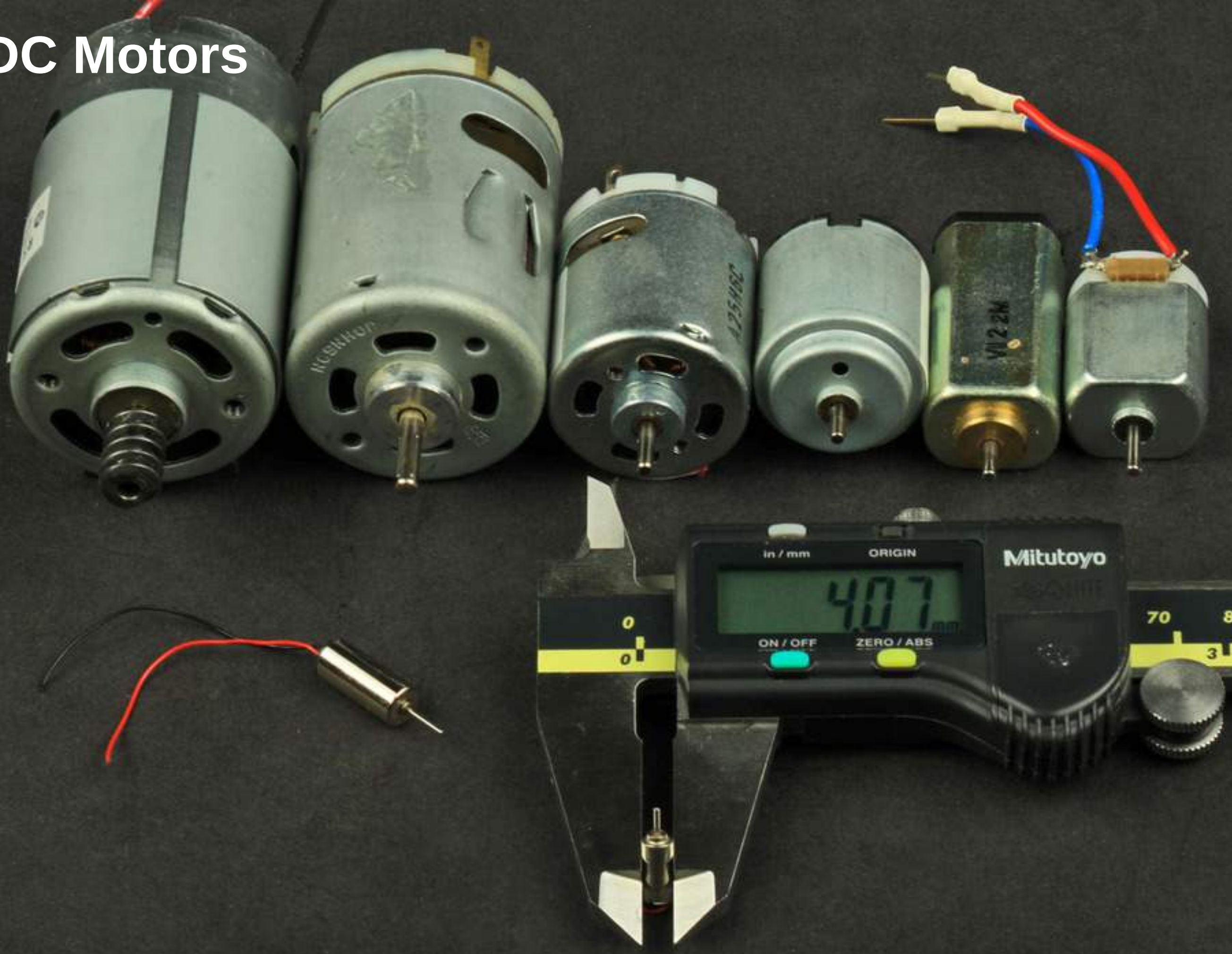
<http://www.adafruit.com/product/987>





motion

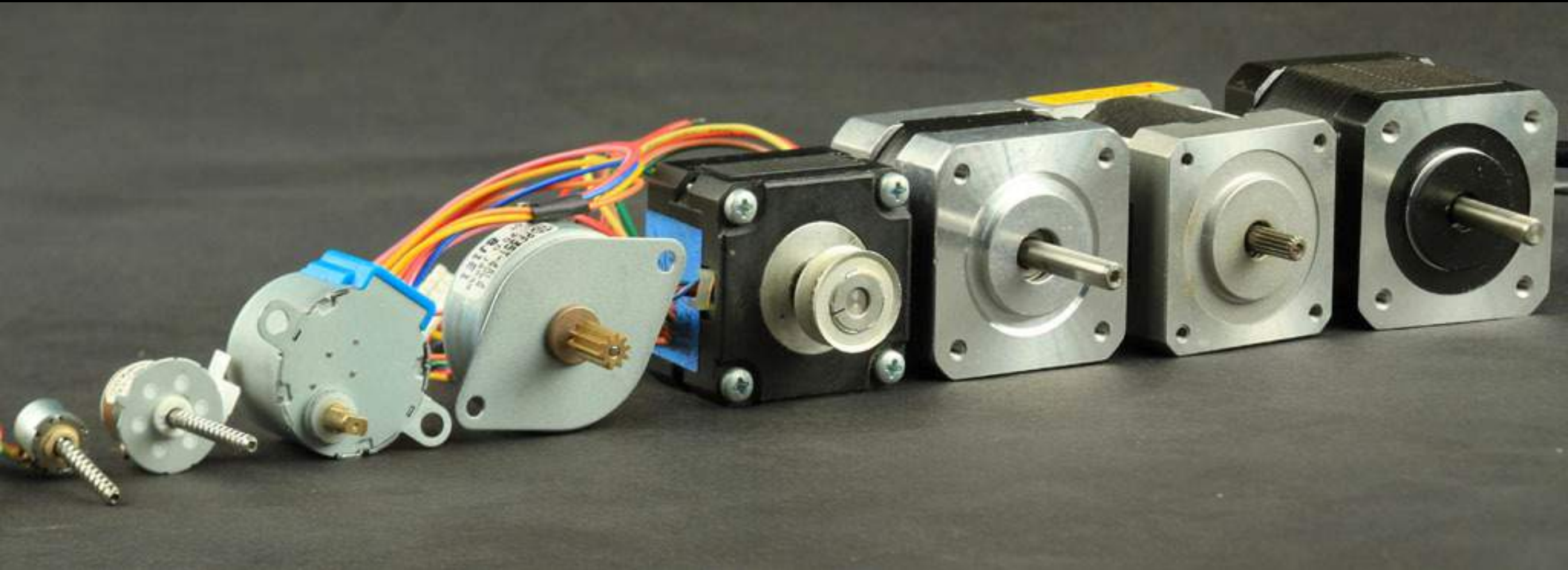
DC Motors



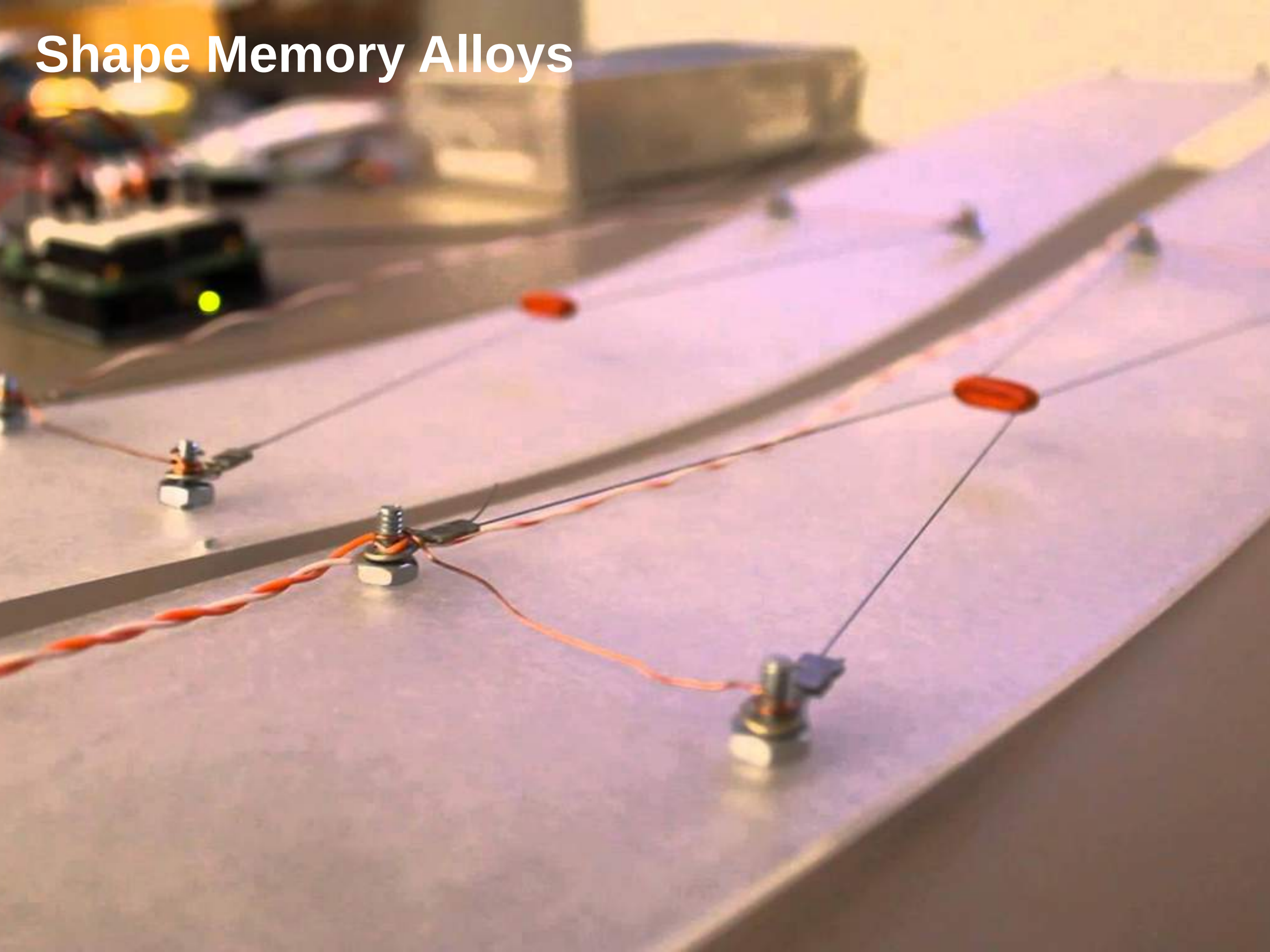
Servos



Steppers



Shape Memory Alloys





Living Glass, The Living, New York