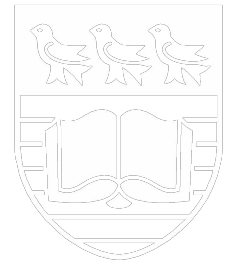
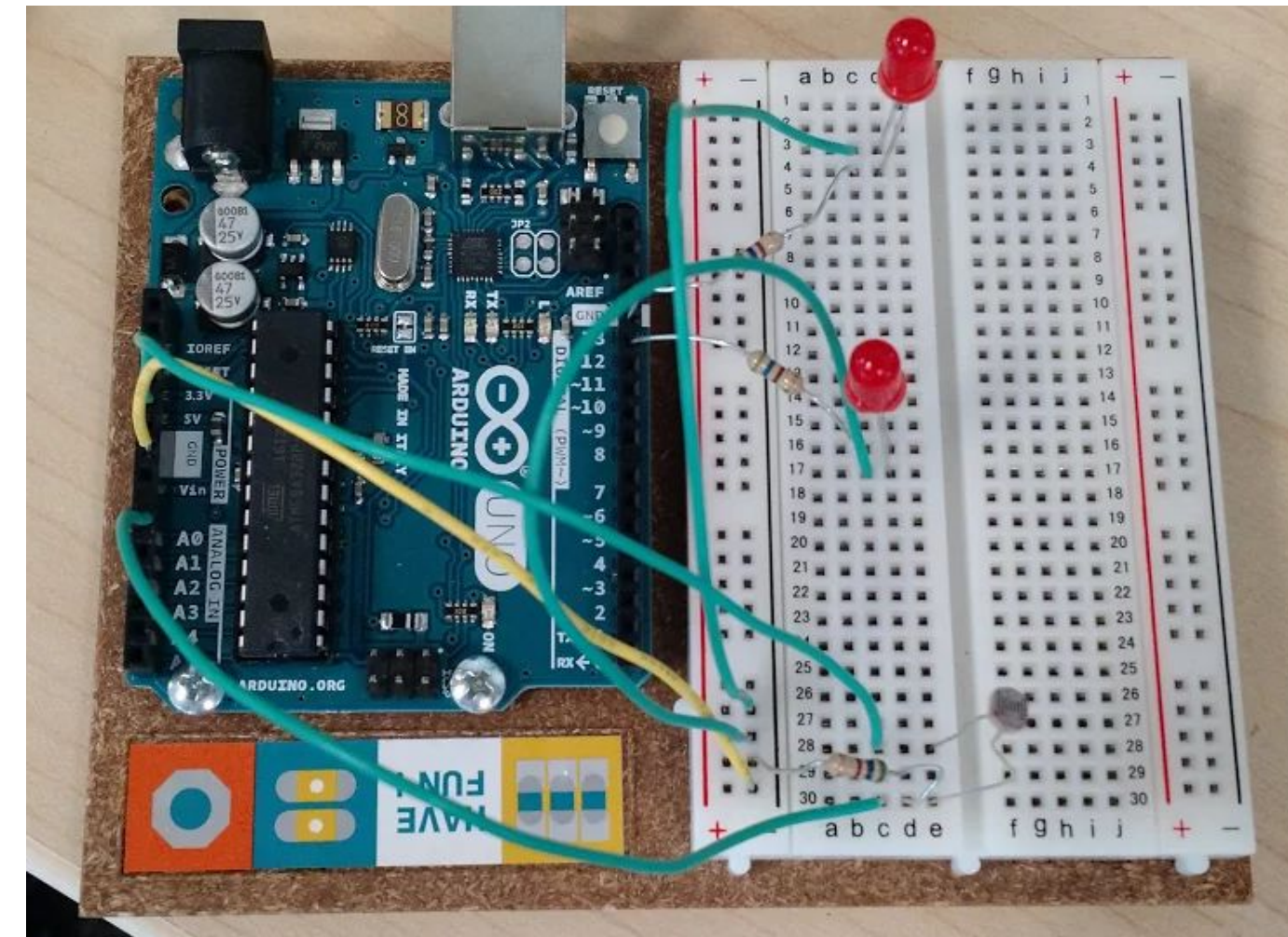


Halloween 2017 Event: Make a Spooky Box with Arduino Electronics



University
of Victoria

Oct. 26th | 7:00 - 8:30
For the UVic Libraries
Digital Scholarship Commons



dscommons@uvic.ca
<https://oac.uvic.ca/dsc/>

What We're Doing Today...

1. What does Arduino do?
2. Example Projects for Arduino
3. What we're doing today
4. Key Concepts
5. A few more things...



Example Projects

Pumpkin Eyes

- <https://www.youtube.com/watch?v=ryUNHPJ3leY>

Stranger Things Light-up Board

- <https://www.youtube.com/watch?v=foloF7qTGhw>



What we're doing today



Arduino Key Concepts

Sensors

- Light sensor
- Mechanical switch
- Motion sensor
- Heat sensor
- Pressure sensor
- GPS location
- Infrared sensor
- ... & more



Programming

- We use a programming environment to tell the Arduino, sensors, & output devices what to do.

```
Blink | Arduino 1.0
Blink
/*
 * Blink
 * Turns on an LED on for one second, then off for one second, repeatedly.
 *
 * This example code is in the public domain.
 */

void setup() {
  // initialize the digital pin as an output.
  // Pin 13 has an LED connected on most Arduino boards:
  pinMode(13, OUTPUT);
}

void loop() {
  digitalWrite(13, HIGH); // set the LED on
  delay(1000);            // wait for a second
}
```

Output

- LED lights
- Sound
- Digital Display
- Motors
- Servos
- Solenoid
- ... & more



How to Give Arduino Instructions

“Light up the monster and play sound when I open the box.”



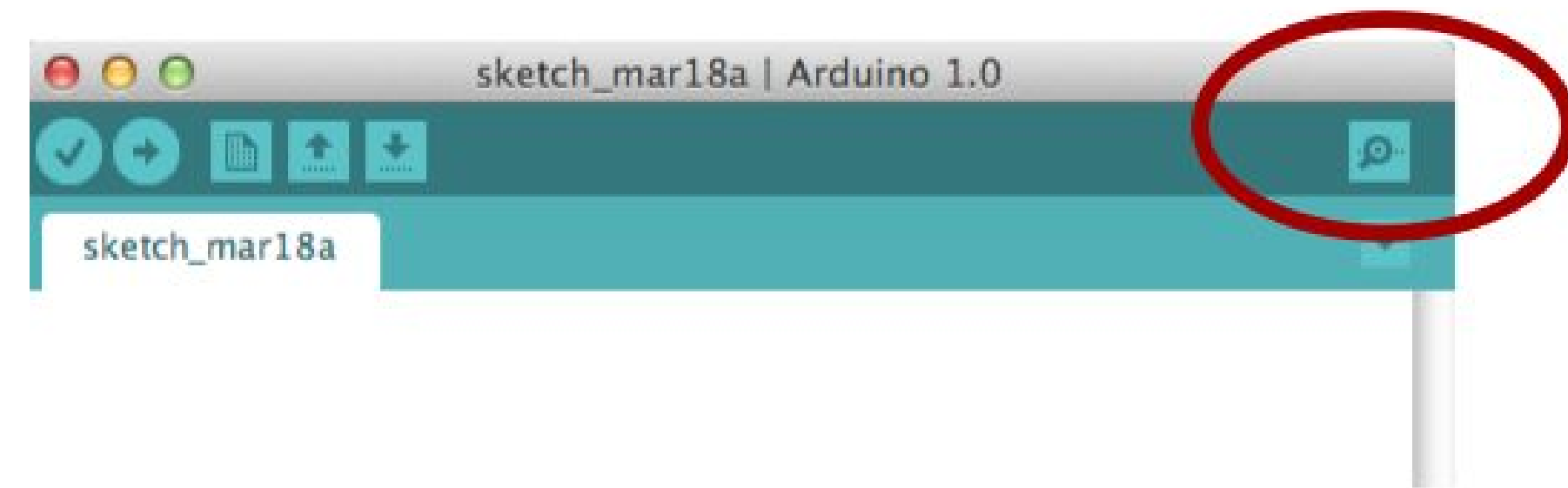
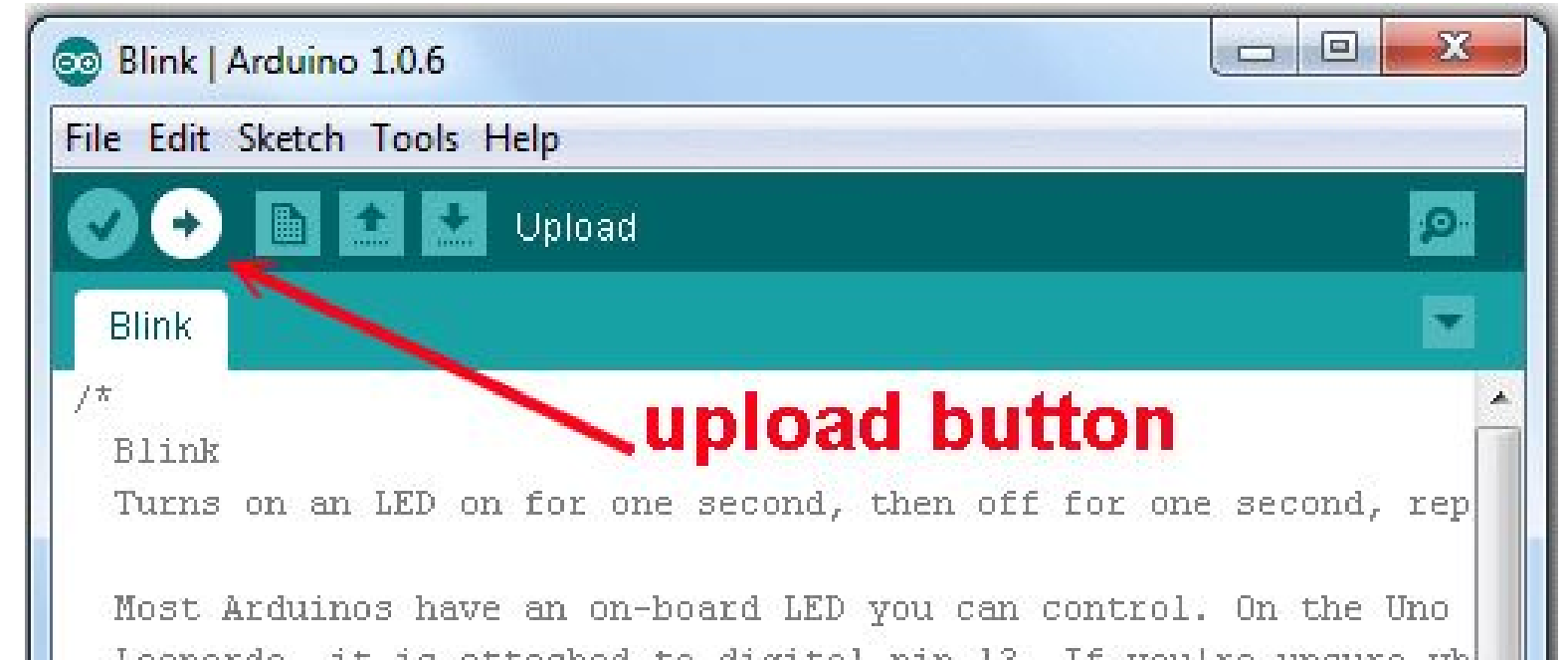
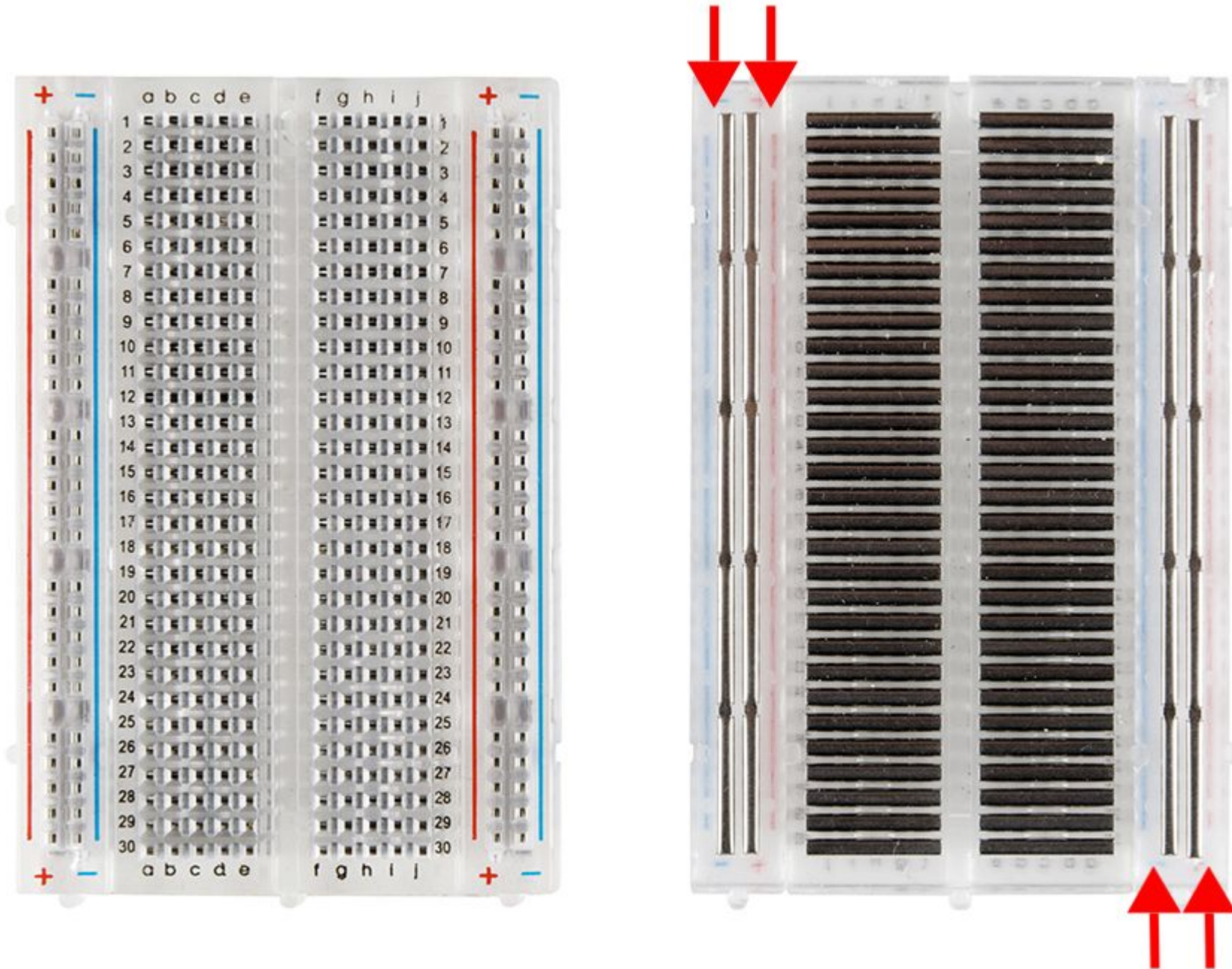
“If the box is open, turn the lights on and play a sound.”



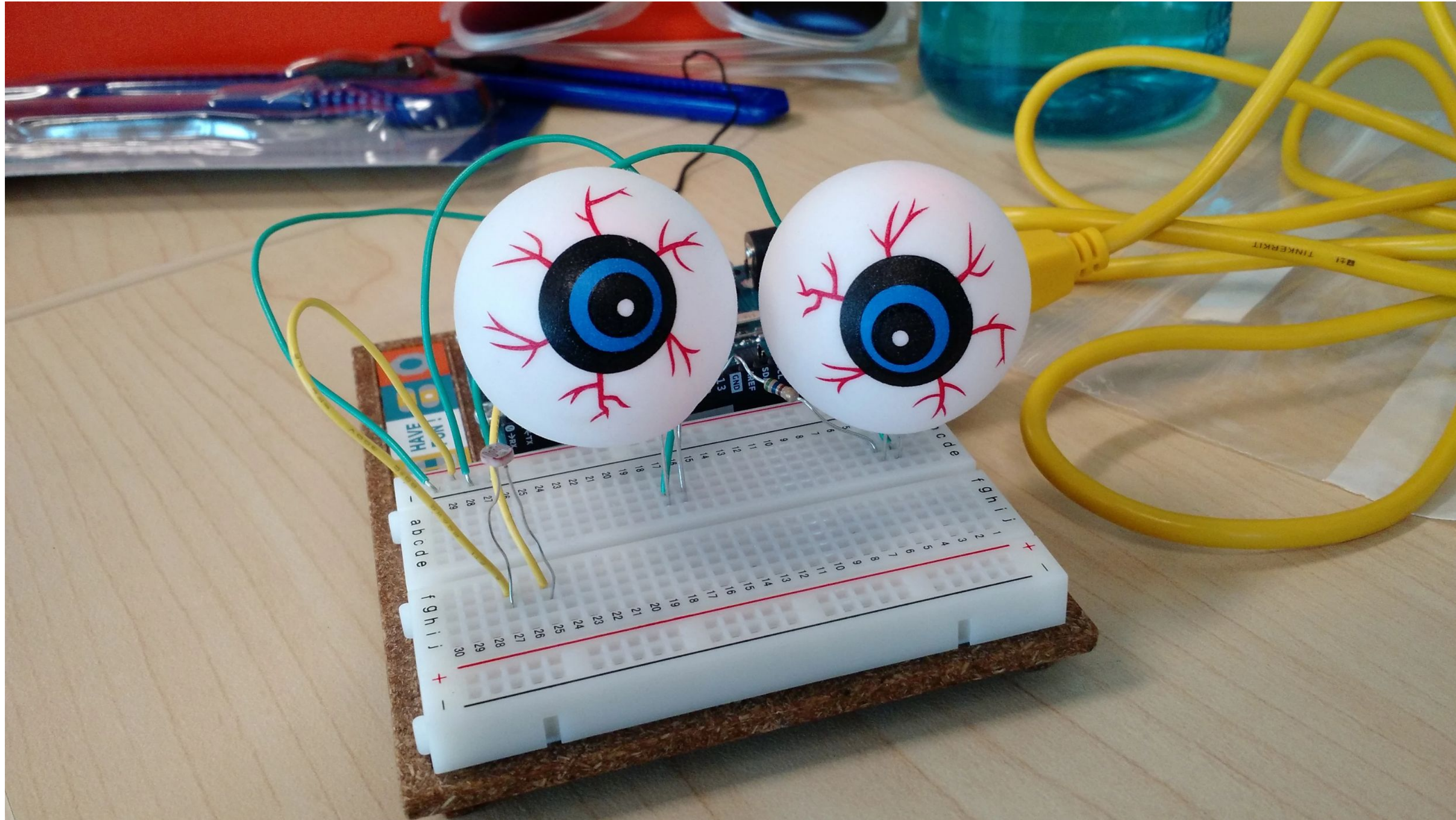
“If the sensor detects light, turn the lights on and play a sound.
Otherwise, turn the lights off.”



A few more things...



Have Fun!



Workshop Evaluation & Research Survey: <https://goo.gl/QVWCa>

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<https://oac.uvic.ca/dsc/>

