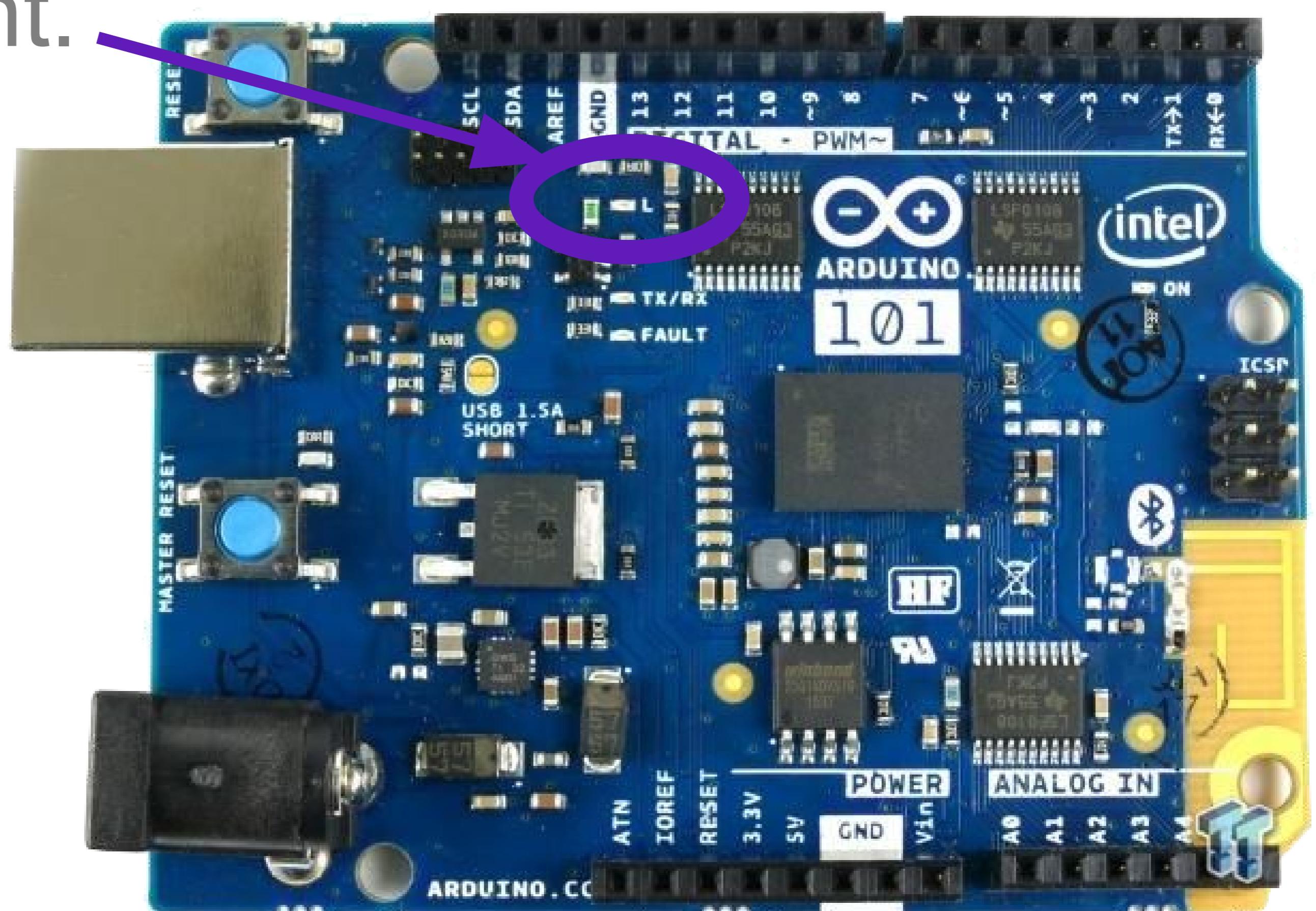
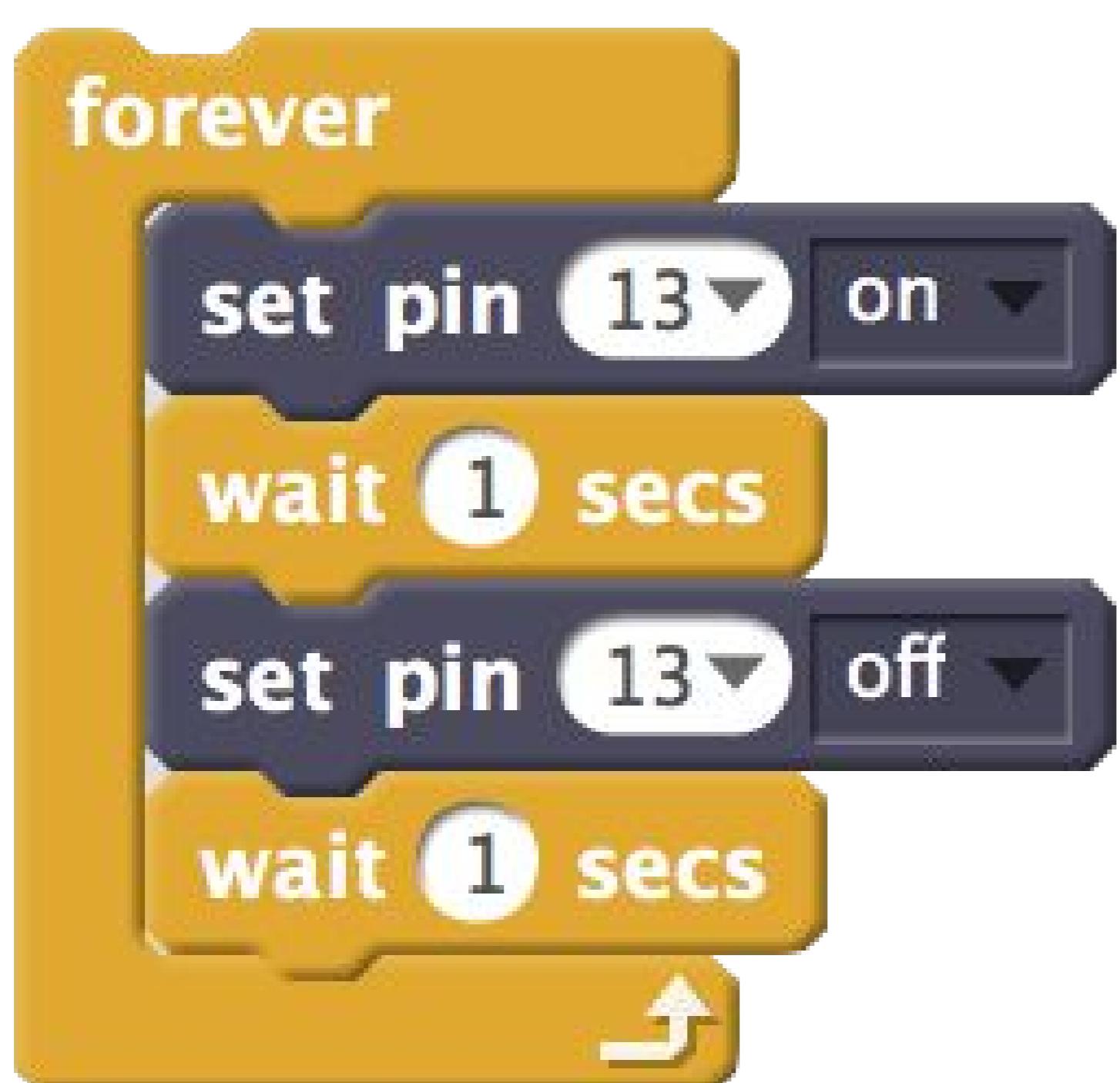


Hello, Arduino!

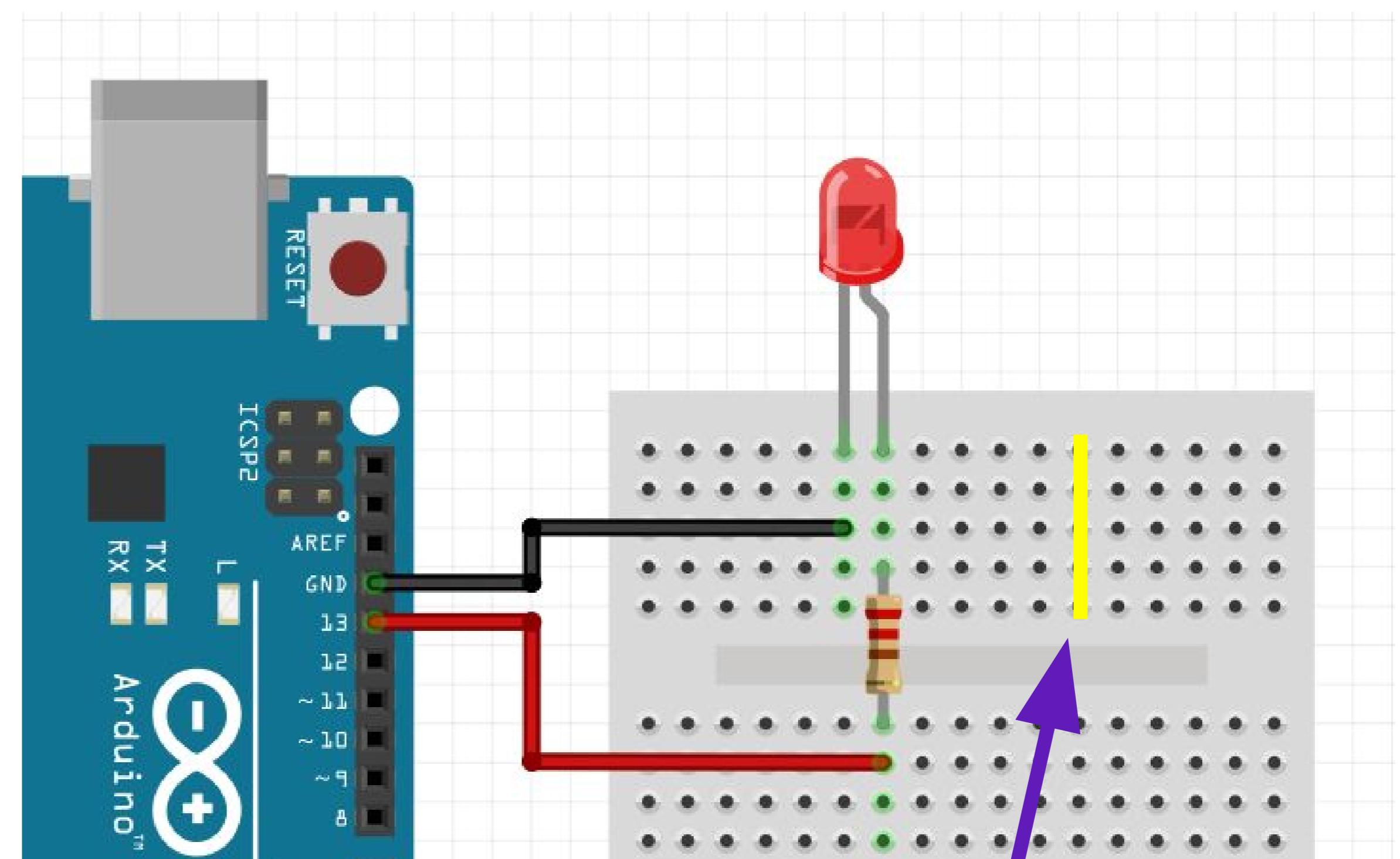
1. Turn on built-in LED light.



2. Can you make it blink?



3. Can you connect an external LED to pin 13?



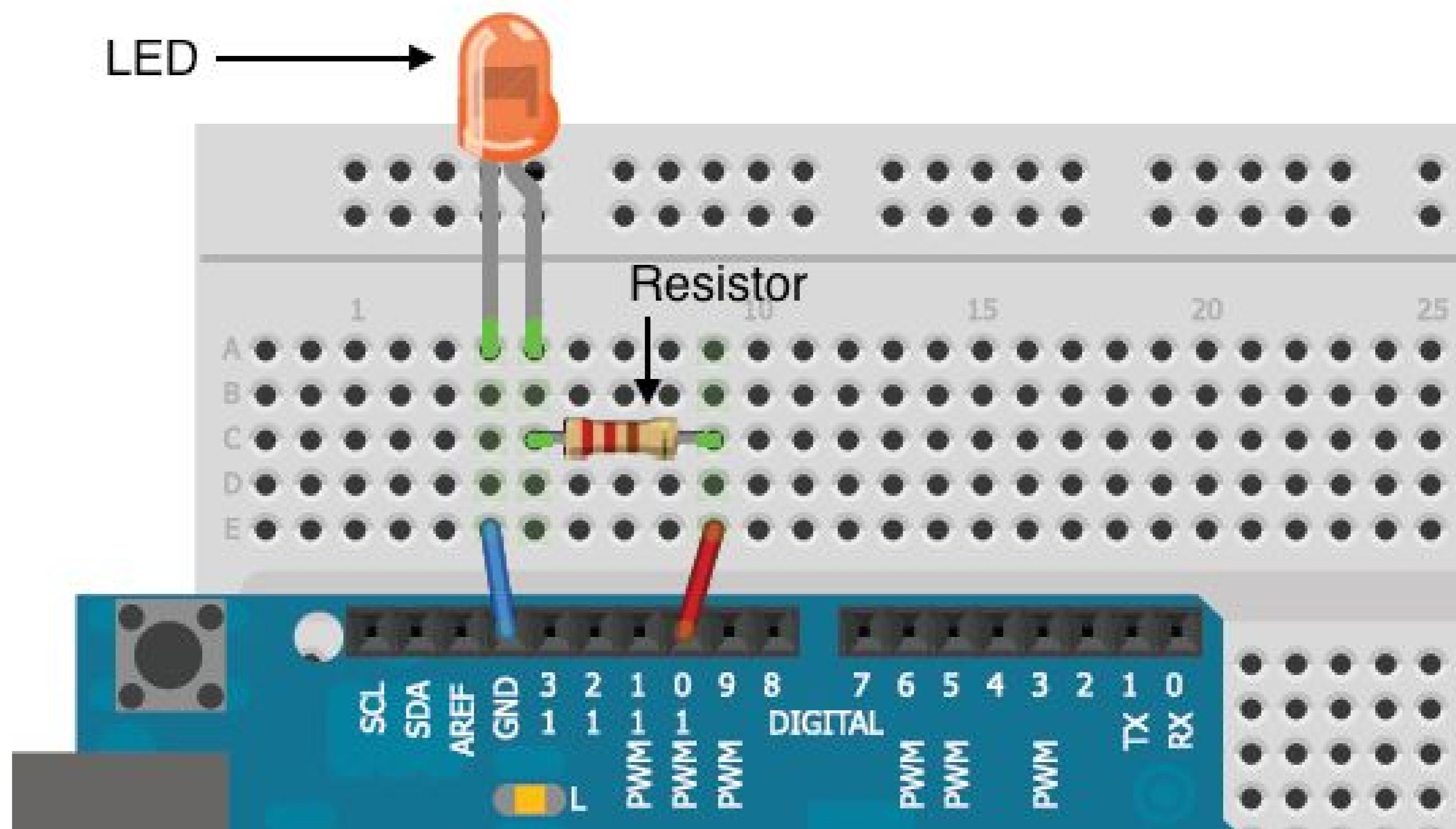
4. Can you add more LEDs?



Each row is connected

LED Clouds

YOUR CHALLENGE:
Make an LED cloud complete with flashing lights and sound effects.



CAN YOU:

- Make your cloud light up?
- Record a sound effect for thunder?
- Use multiple LEDs to give your cloud a unique lightning effect?



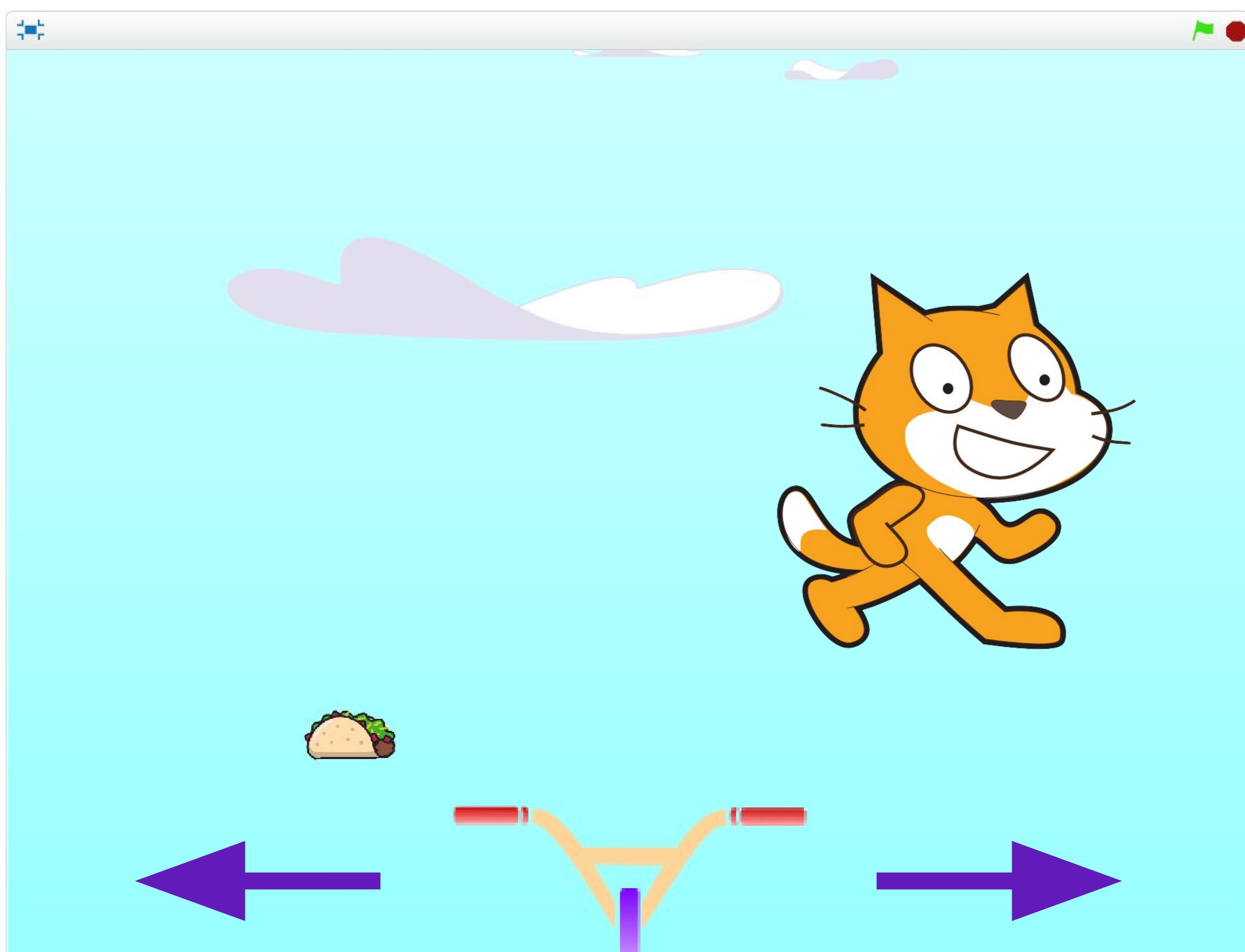
Tilt Controller

YOUR CHALLENGE:

Use your Arduino to control Scratch Cat or other Sprites in a Scratch project of your choice.

CAN YOU:

- Make Scratch Cat slide back and forth? Say how far you are tilting?
- Move Scratch Cat in all directions?
- Try bit.ly/ArduinoFlyingBike?
- Use the tilt block in another Scratch project?
- Design your own game controller?



Tilt Controller

Scratch Cat can tell you how far you're tilting!



You can move Scratch Cat back and forth:



Or up and down:



Try using both to move around:



OR



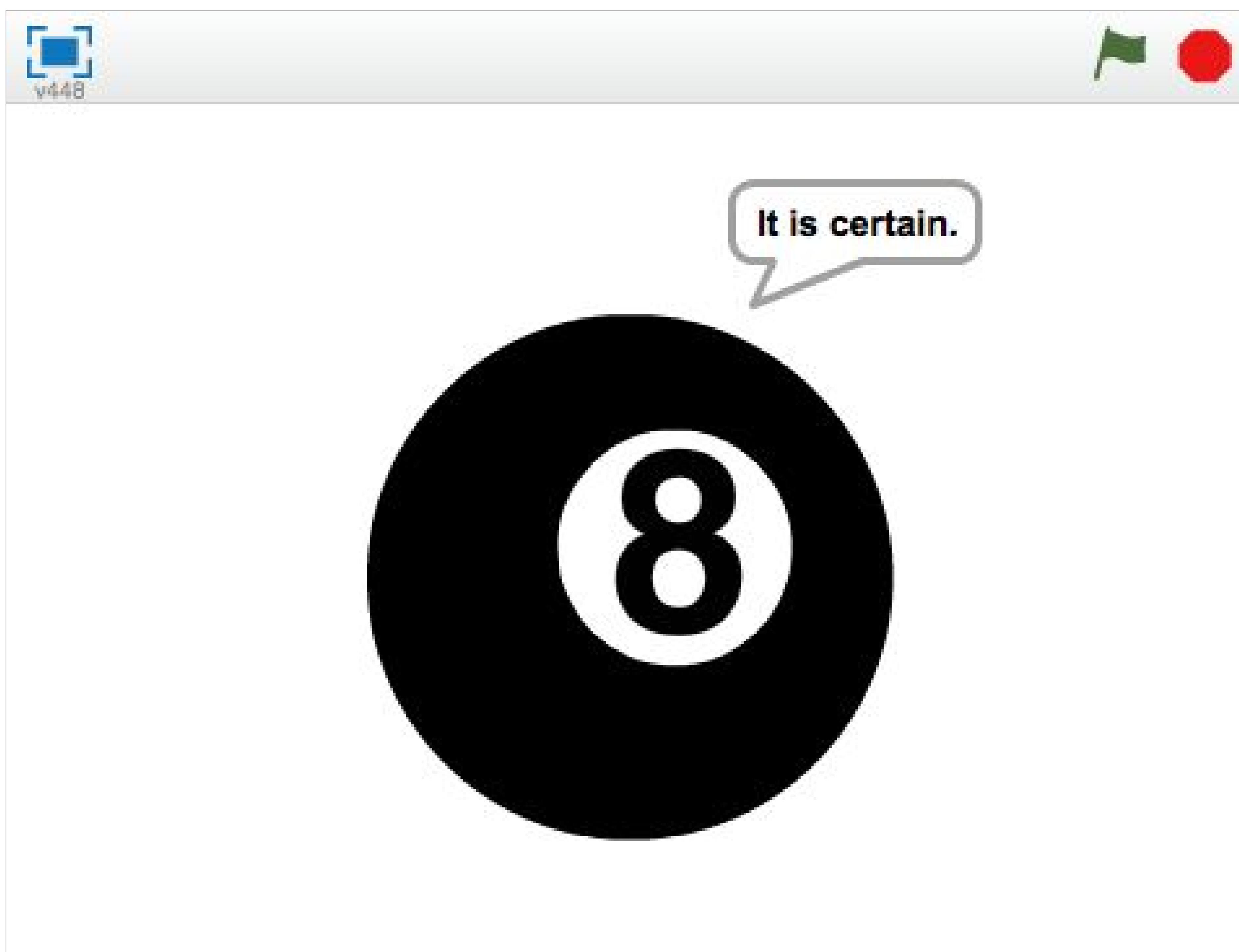
Magic 8 Ball

YOUR CHALLENGE:

Use the Magic 8 Ball template to add your own phrases and create a fortune telling game, or invent your own shake game!

Using bit.ly/Arduino8Ball, CAN YOU:

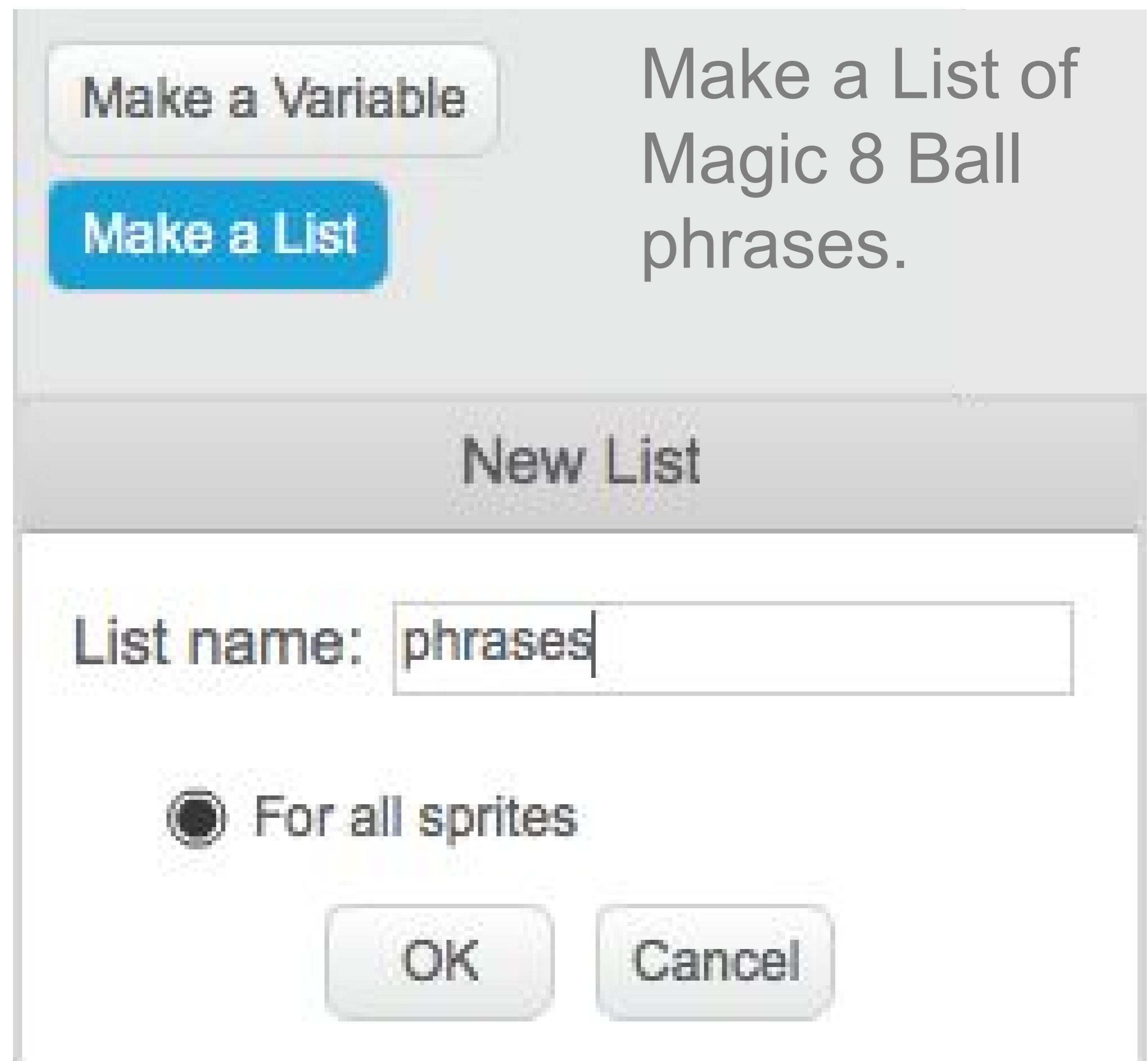
- Create your own Magic 8 Ball phrases?
- Use the shake function to randomize the response?
- Add a sound effect to go with each shake?



Magic 8 Ball

when shaken

Use this block to shake the Magic 8 Ball using your Arduino.



Then make the Magic 8 Ball say a random phrase with each shake!

say [item random of **phrases]**

point in direction **-90**
wait **0.05** **secs**
point in direction **0**
wait **0.05** **secs**

Use motion blocks to shake the Magic 8 Ball in Scratch!

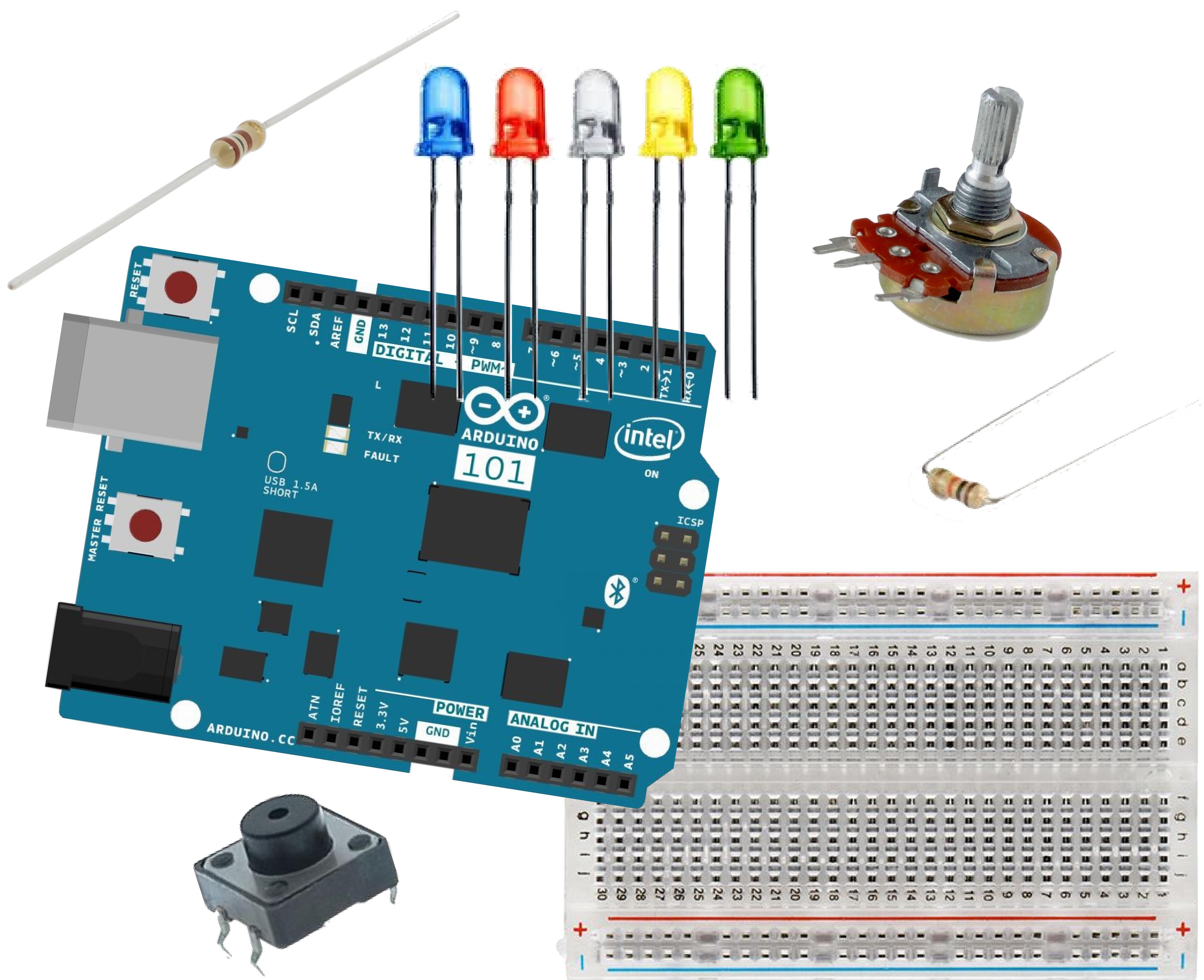
Open Exploration

YOUR CHALLENGE:

Play with prebuilt Arduino and Scratch connections or use components to create your own!

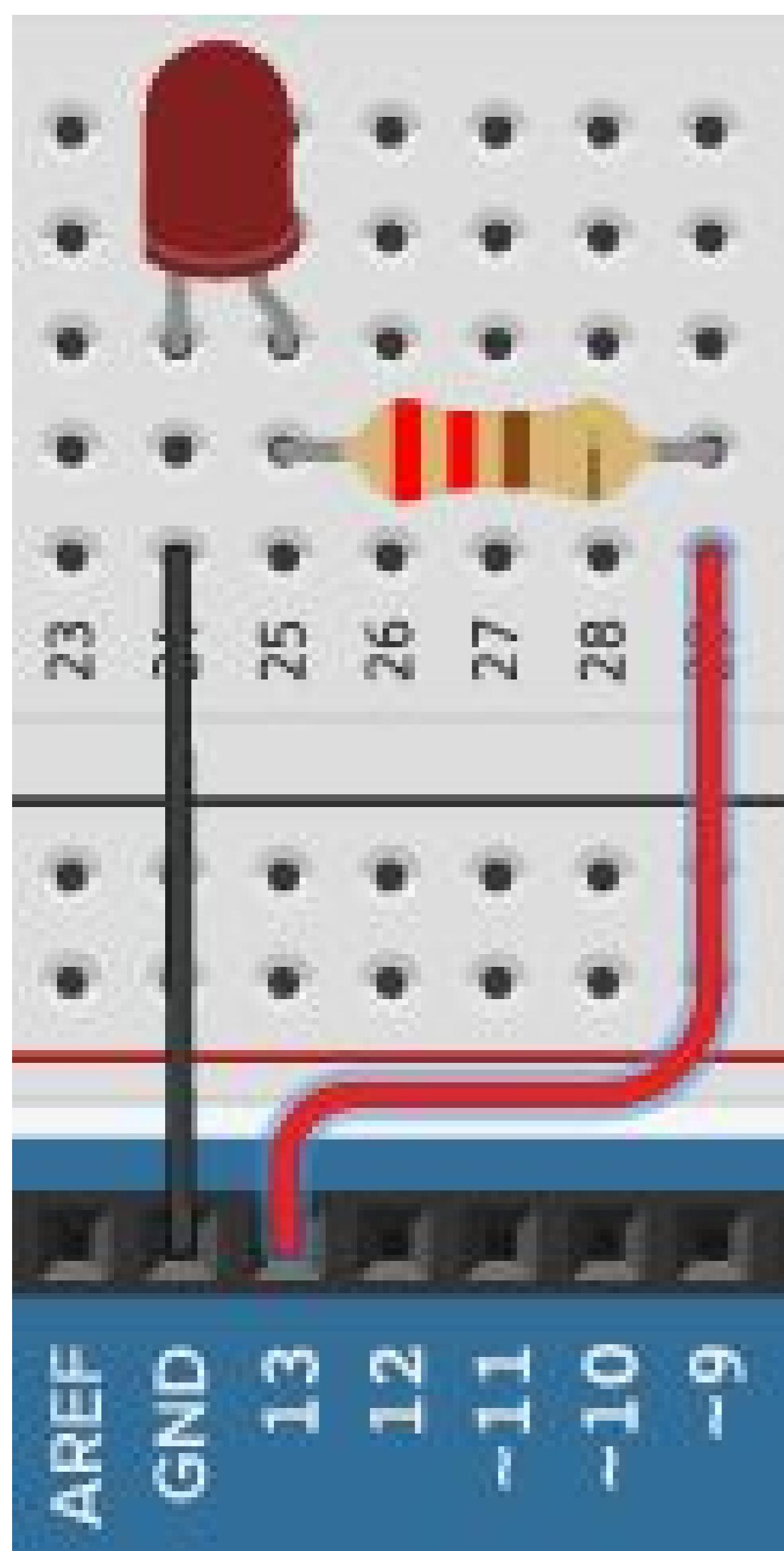
CAN YOU:

- Explore unique Arduino projects?
- Design your own Arduino creation?

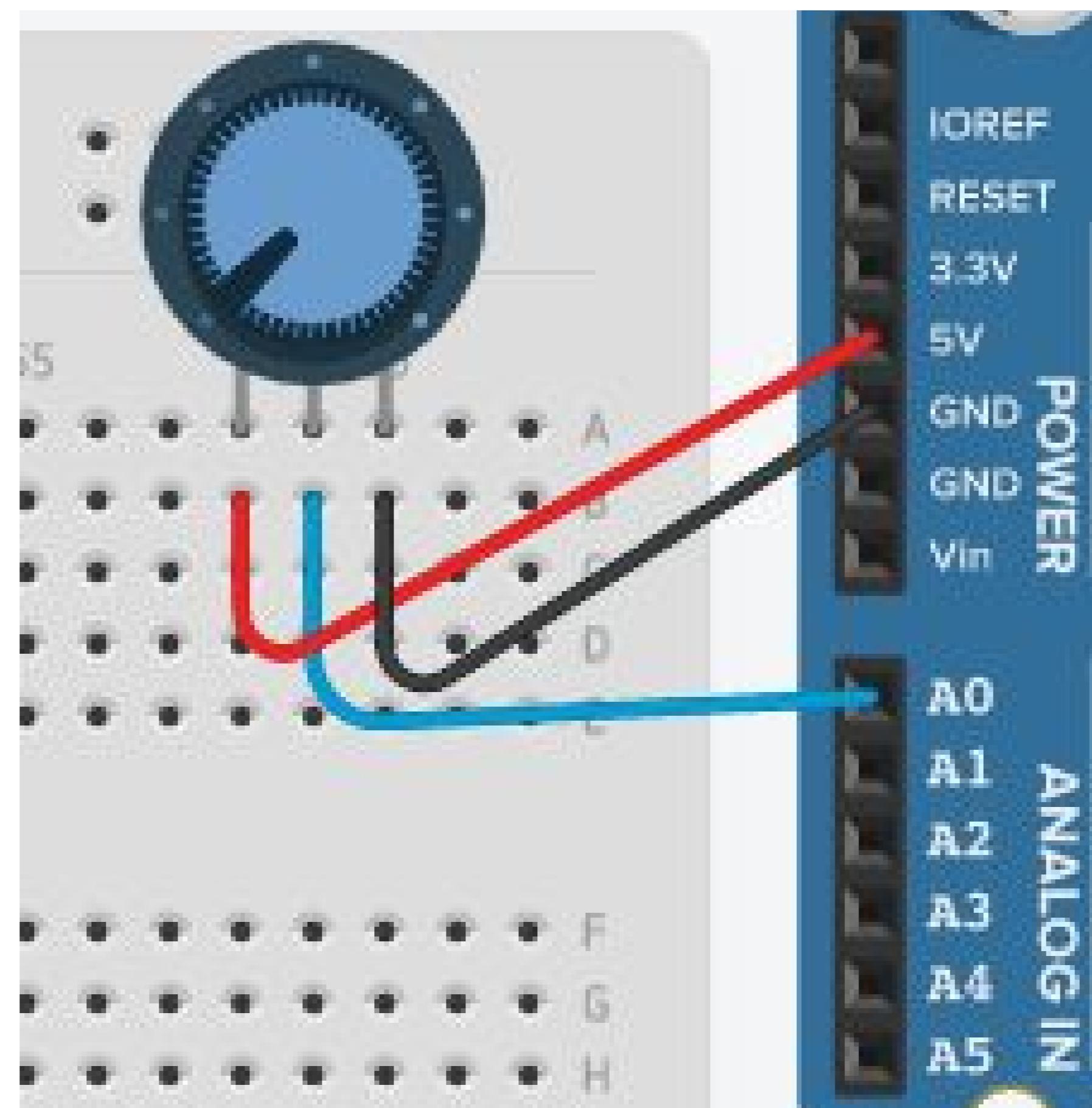


Components

LED



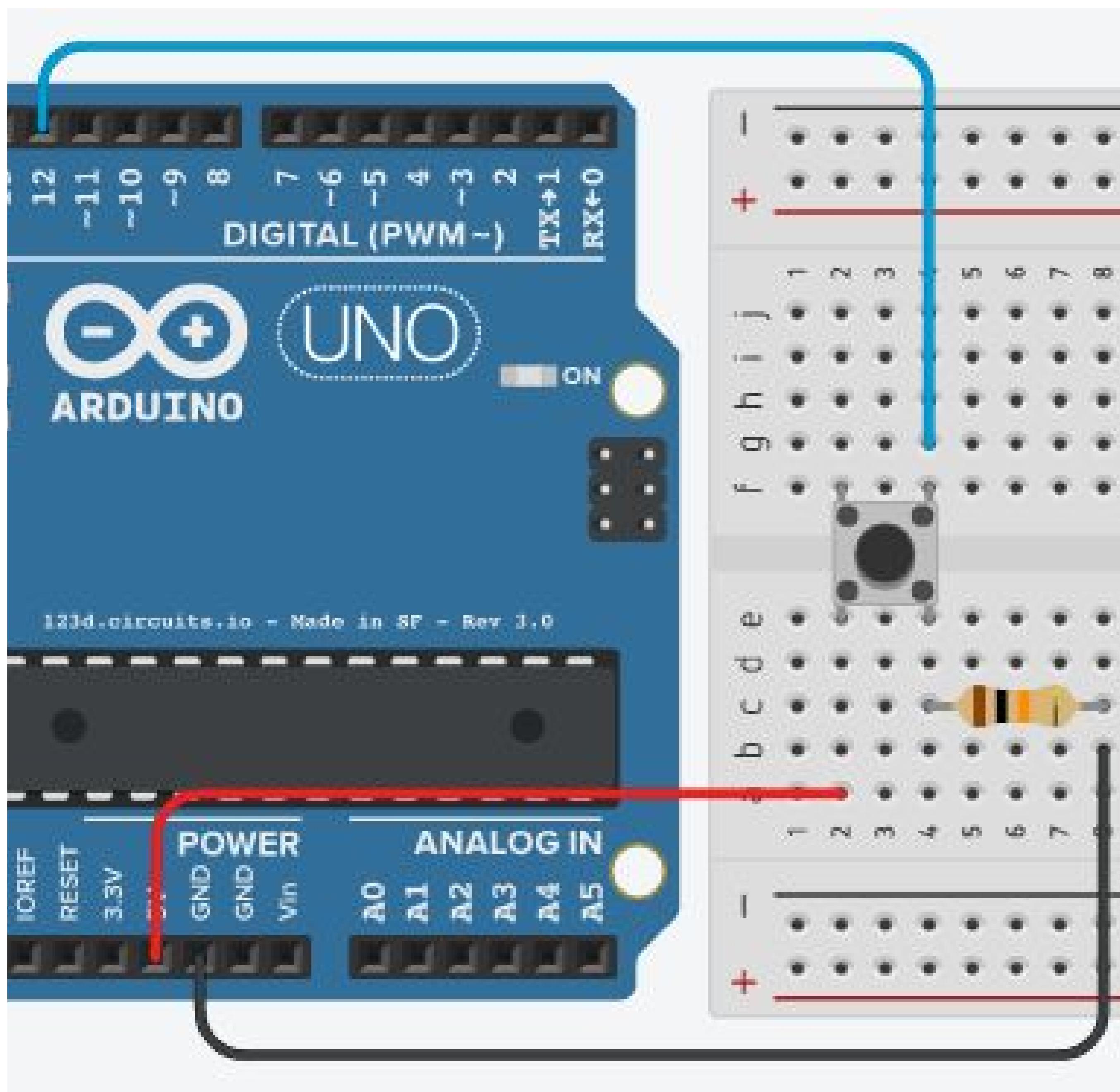
Potentiometer



Servo Motor



Button



Ambient Light Sensor

