

Documentation - Button Usage

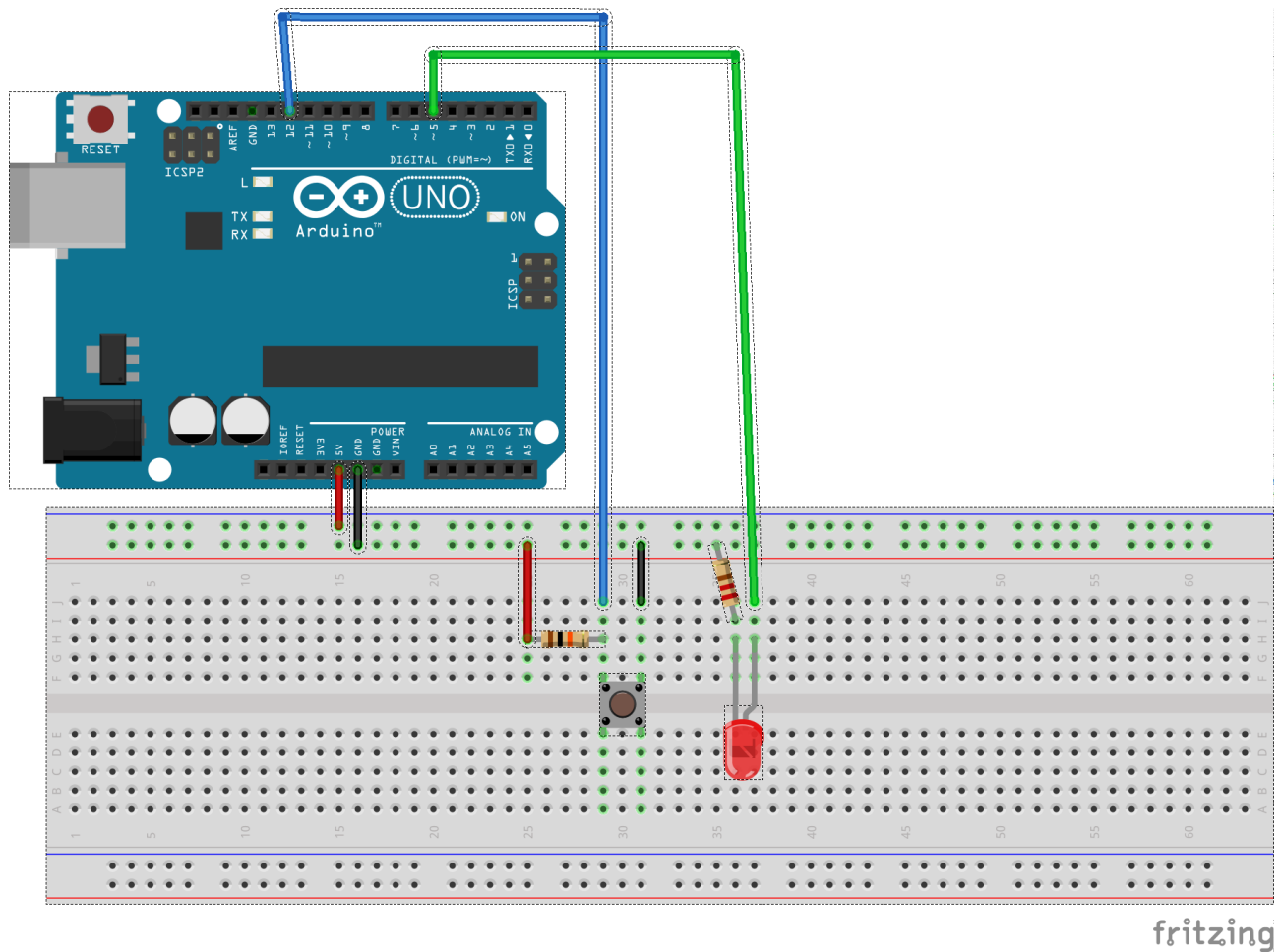
by Eric LIU

Objective: Create a toggleable button to light up LED.

Components:

1. 10k Ω Resistor x1
2. 300 Ω Resistor x1
3. Pull up button x1
4. LED x1
5. Jump wires x 6
6. Arduino Setup

Basic Schematic:



Code:

```
//Create a toggleable button to turn on light
int readPin = 12;
int ledInput = 5;
int dt = 200;
int buttonRead;
int ledState=1;
void setup() {
  Serial.begin(9600);
  pinMode(readPin, INPUT);
}
```

```
pinMode(ledInput, OUTPUT);

}

void loop() {
  buttonRead = digitalRead(readPin);
  Serial.println(buttonRead);
  delay(dt);
  //toggle led state
  if(buttonRead==0){
    if(ledState==0){
      ledState=1;
    }
    else if(ledState==1){
      ledState=0;
    };
  };
  while(buttonRead==0){
    buttonRead = digitalRead(readPin);
  };

  if(ledState==0){
    digitalWrite(ledInput,HIGH);
  }
  else if(ledState==1){
    digitalWrite(ledInput,LOW);
  };
}
```