**Day 5 Notes**

**Astrid and Gear**

A person working on a robot

Description automatically generated

Example Circuit

A circuit board with wires connected to it

Description automatically generated

220Ω Resister for LED

10KΩ Resistor for Photoresistor

My Circuit

A circuit board with wires

Description automatically generated

**Code to Trace**

const int switchPin1 = 2;    // switc1 1 is connected to pin 2

const int switchPin3 = 3;    // Switch 3 is connected to pin 3

const int ledPin1 = 8;       // Led 1 is connected to pin 8

const int ledPin2 = 9;       // Led 2 is connected to pin 9

int switchState1 = 0;        // Variable to hold the state of switch 1

int lastSwitchState1 = 0;    // Previous state of switch 1

int switchState3 = 0;        // Variable to hold the state of switch 3

int lastSwitchState3 = 0;    // Previous state of switch 3

int ledState1 = LOW;         // Current state of LED 1 (initially off)

int ledState2 = LOW;         // Current state of LED 2 (initially off)

void setup() {

  pinMode(switchPin1, INPUT);

  pinMode(switchPin3, INPUT);

  pinMode(ledPin1, OUTPUT);

  pinMode(ledPin2, OUTPUT);

}

void loop() {

  // Read the state of switch 1

  switchState1 = digitalRead(switchPin1);

  // Toggle LED 1 on/off when switch goes to on

  if (switchState1 != lastSwitchState1)  {

    if (switchState1 == HIGH)  {

      ledState1 == !ledState1;  // Toggle LED state

      digitalWrite(ledPin1, ledState1);  //Set LED state

    }

    delay(50);  // Debounce delay

  }

  lastSwitchState1 = switchState1;  // Save the current state for the next iteration

    // Read the state of switch 3

  switchState3 = digitalRead(switchPin3);

  // Toggle LED 2 on/off when switch goes to on

  if (switchState3 != lastSwitchState3)  {

    if (switchState3 == HIGH)  {

      ledState2 == !ledState2;  // Toggle LED state

      digitalWrite(ledPin2, ledState2);  //Set LED state

    }

    delay(50);  // Debounce delay

  }

  lastSwitchState3 = switchState3;  // Save the current state for the next iteration

}