**Using a PIR to Detect Movement**

**1:CODE**

// Uses a PIR sensor to detect movement and turn on a LED

int ledPin = LED\_BUILTIN; // choose the pin for the LED

int inputPin = 8; // choose the input pin (for PIR sensor)

int pirState = LOW; // we start, assuming no motion detected

int val = 0; // variable for reading the pin status

void setup() {

  pinMode(ledPin, OUTPUT); // declare LED as output

  pinMode(inputPin, INPUT); // declare sensor as input

  Serial.begin(9600);

}

void loop(){

  val = digitalRead(inputPin); // read input value

  if (val == HIGH) { // check if the input is HIGH

    digitalWrite(ledPin, HIGH); // turn LED ON

    delay(150);

    if (pirState == LOW) {

      // we have just turned on

      Serial.println("Motion detected!");

      // We only want to print on the output change, not state

      pirState = HIGH;

    }

  } else {

    digitalWrite(ledPin, LOW); // turn LED OFF

    delay(300);

    if (pirState == HIGH){

      // we have just turned off

      Serial.println("Motion ended!");

      // We only want to print on the output change, not state

      pirState = LOW;

    }

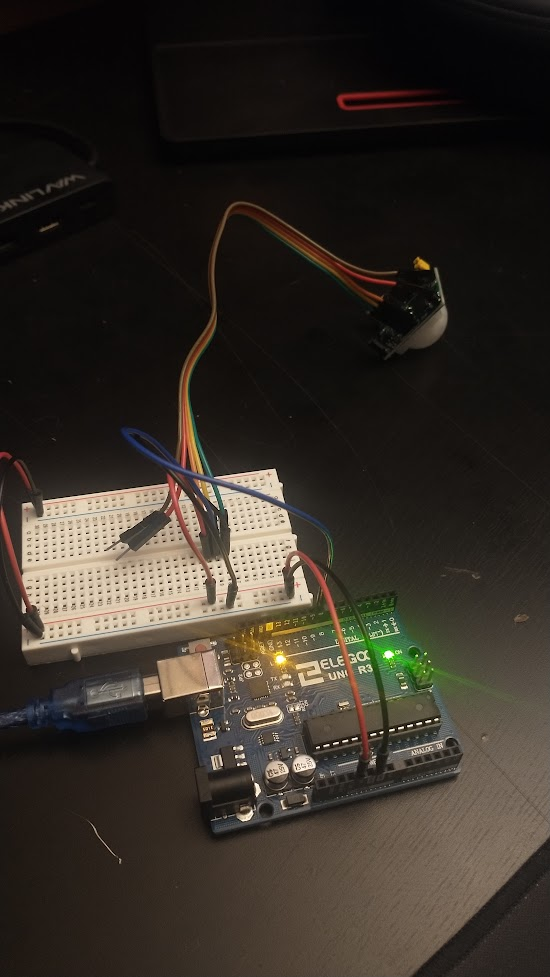
  }

}

**2:DESCRIPTION**

For this lab I used the Dupont Wires to give myself a little more room on the breadboard. The outside pins on the PIR were wired to 5v and ground and the middle pin was wired to digital pin 8.

**3:PICTURE**

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