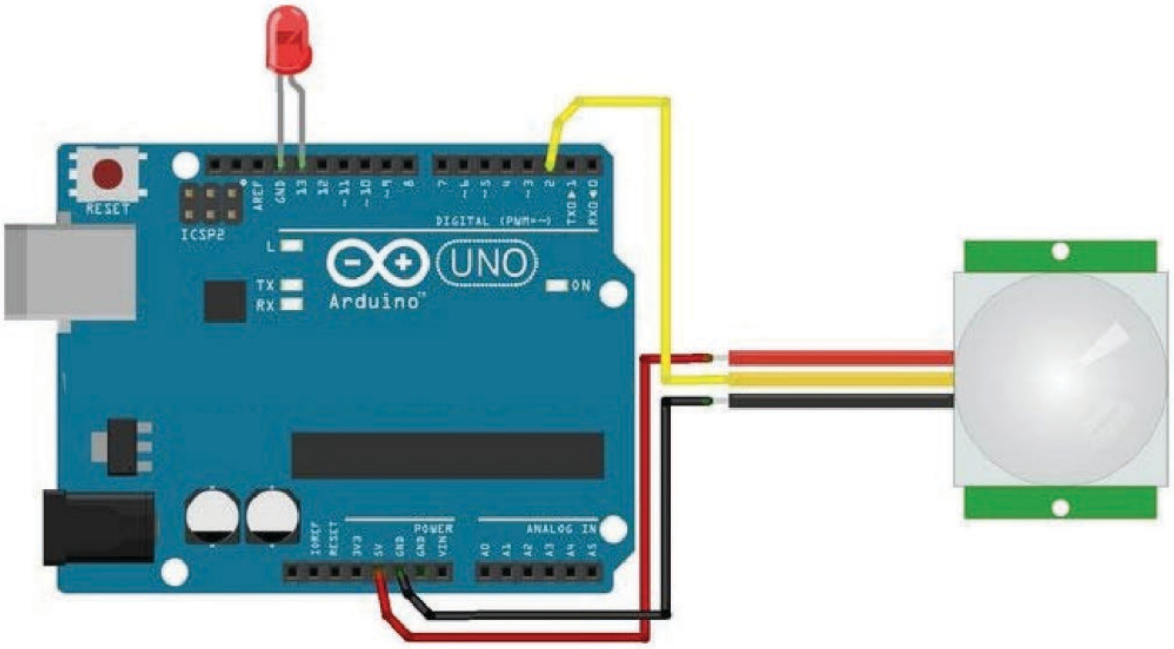
## PIR Motion Sensor Arduino Project

This tutorial demonstrates how to detect motion from PIR Sensor using Arduino Uno Development Board. When the PIR detects, it will trigger the LED to light up showing as the output.

***Electric Parts Require***

- 1x Arduino
- 1x PIR Motion Sensor
- 1x LED
- 1x Jumper Cable

*Please follow this schematic below to setup this project.*




Code:

```
PIR Motion Sensor with Arudino Demo Code

*/

int led = 13;              // Define the LED as Pin 13
int sensor = 4;            // Define the Sensor Connected to Pin 4
int state = LOW;           // Motion Detection
int val = 0;               // Store the value of sensor

void setup() {
  pinMode(led, OUTPUT);     // initialize the LED as the output
  pinMode(sensor, INPUT);   // initialize the sensor as the input
  Serial.begin(9600);       // Define the serial communication
}
```

```
void loop(){
 val = digitalRead(sensor);   // Reading the sensor value
 if (val == HIGH) {           // if sensor is high
   digitalWrite(led, HIGH);   // switch on the LED
   delay(100);                // 100 milliseconds delay

   if (state == LOW) {
     Serial.println("Motion was detected");
     state = HIGH;       // Update the variable state in to HIGH
   }
 }
 else {
     digitalWrite(led, LOW); // Turning off the LED
     delay(200);             // 200 milliseconds delay

     if (state == HIGH){
       Serial.println("Motion stopped!");
       state = LOW;       // update the variable state into LOW
   }
 }
}
```