Practice 11 – Motion sensor

To carry out this practice we will use a motion sensor, a led and an Arduino board. It is to connect it as it indicates the connection system that appears in the diagram and to realize the programming so that an LED lights up and in the serial monitor of the Arduino IDE leaves a message every time the sensor detects movement.

A PIR or passive infrared motion sensor is a device with three terminals: Vcc or power to 5V, GND or ground and a third terminal that is the one that sends the signal when it detects the movement, that in this case we are going to connect to the terminal 2. In addition, it has two regulators: time between one detection and another and detection distance.

The sequence can be seen in the following flowchart:
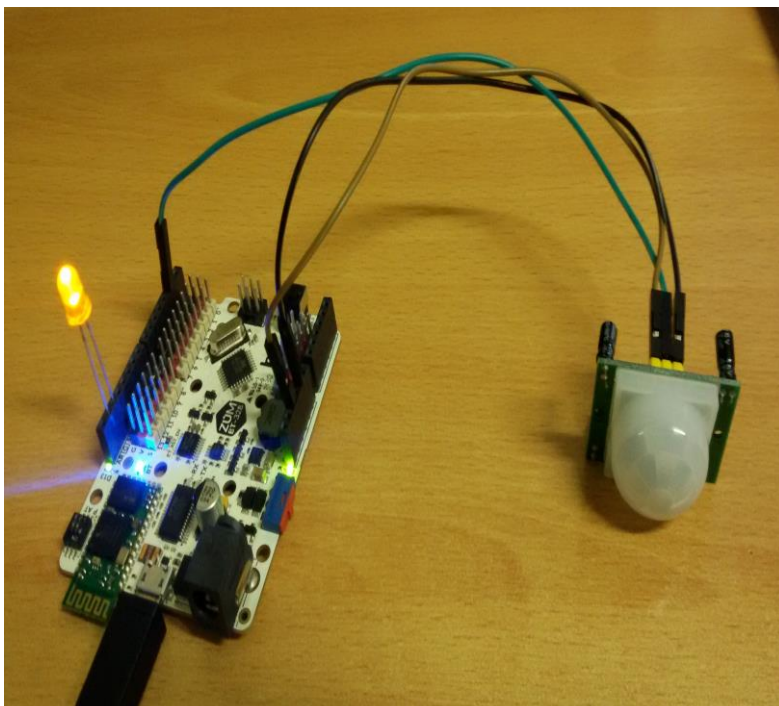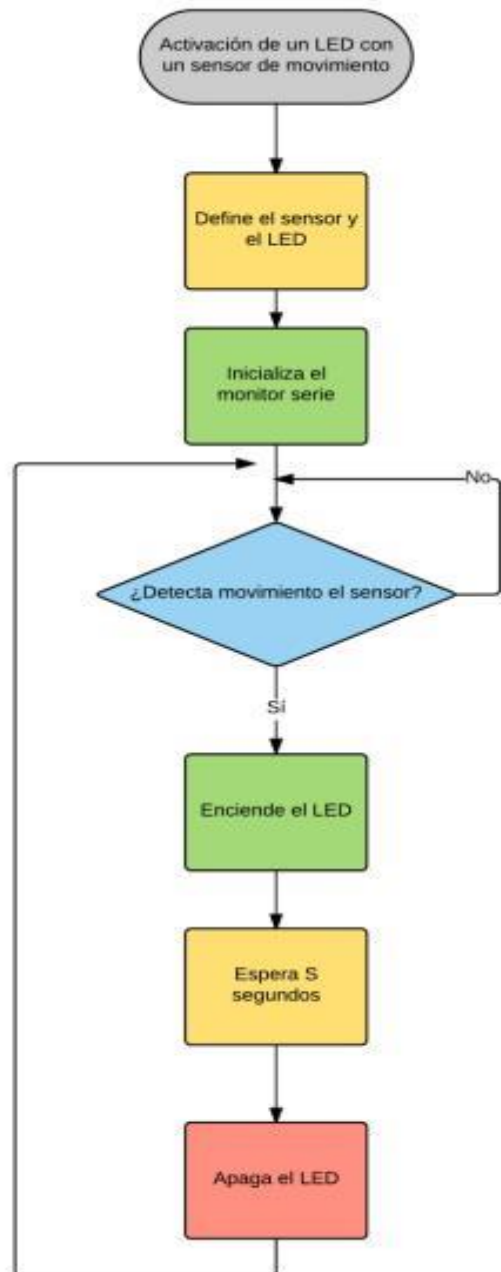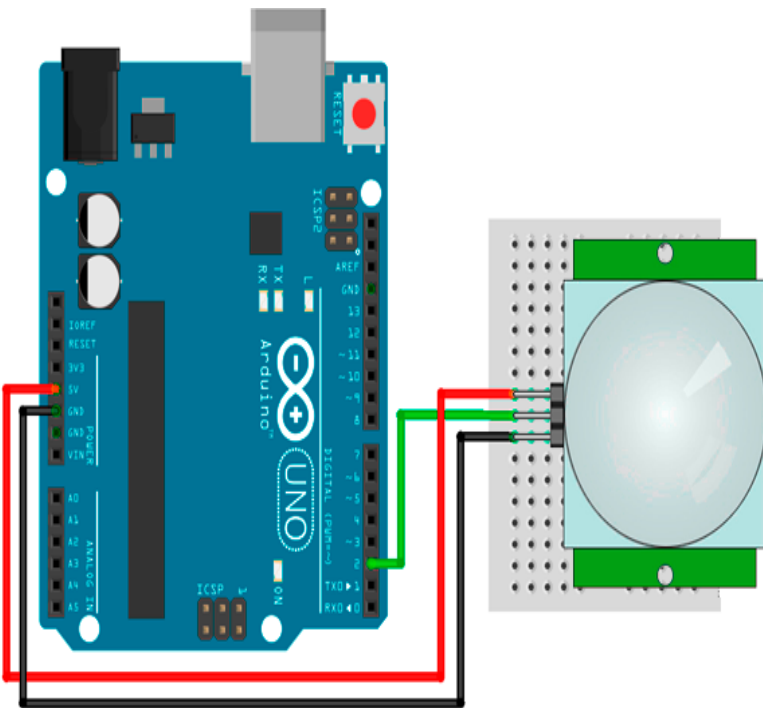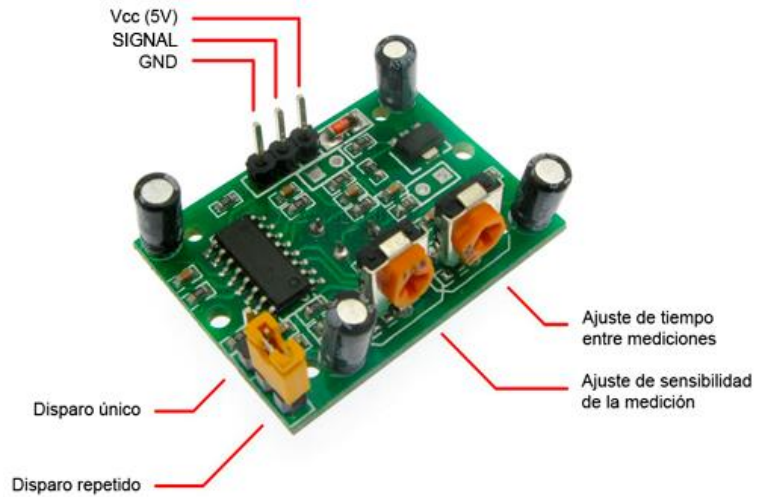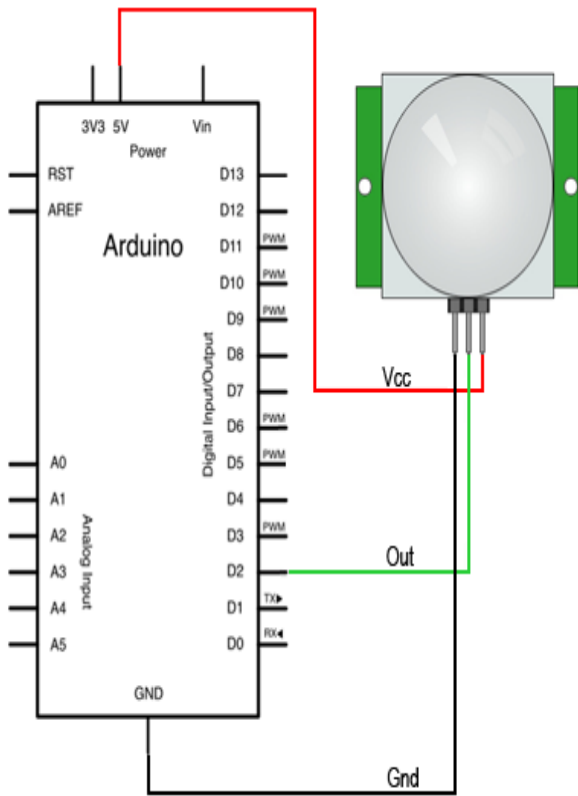
Once the program is loaded, it is sent to the arduino board and the serial monitor is activated by clicking on the magnifying glass icon on the upper left of the monitor. Each time you detect a movement, the LED will light up and the text below will appear.


```
Codigo_usar_sensor_de_movimiento_pir

byte sensorpir = 2;
byte led = 13;


void setup()
{
  pinMode(sensorpir,INPUT);
  pinMode(led,OUTPUT);
  Serial.begin(9600);
}


void loop()
{

  if(digitalRead(sensorpir) == HIGH)
  {
    Serial.println("Detectado movimiento por el sensor pir");
    digitalWrite(led,HIGH);
    delay(1000);
    digitalWrite(led,LOW);
  }

}
```

COM5

Detectado movimiento por el sensor pir
Detectado movimiento por el sensor pir
Detectado movimiento por el sensor pir
Detectado movimiento por el sensor pir
Detectado movimiento por el sensor pir

Autoscroll   Sin ajuste de línea   9600 baudio