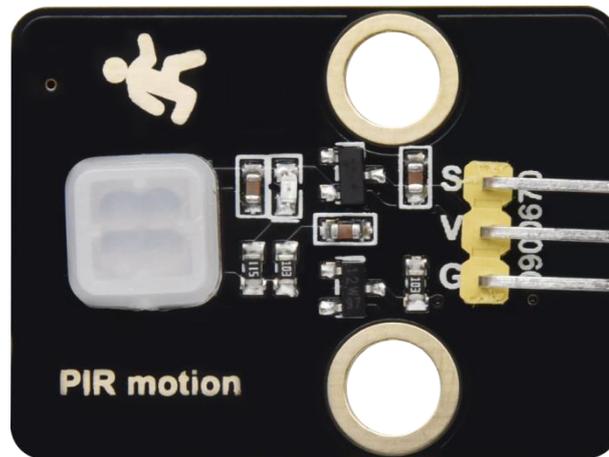


PIR Motion Sensor



1. Overview

PIR motion sensor mainly uses an RE200B-P sensor element. It is a human body pyroelectric motion sensor based on pyroelectric effect, which can detect infrared rays emitted by humans or animals, and the Fresnel lens can make the sensor's detection range farther and wider.

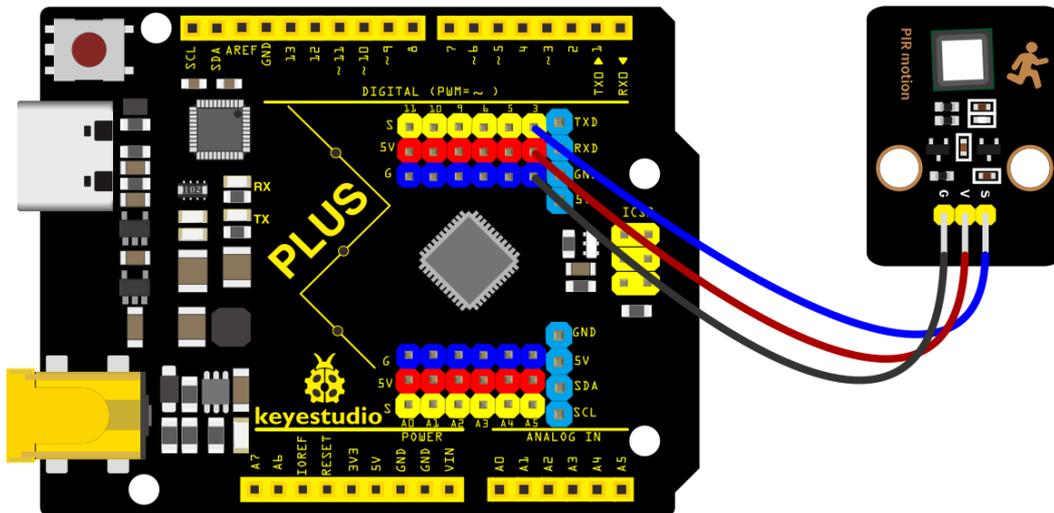
It is compatible with multiple microcontroller boards such as arduino, micro:bit and raspberry pi. In addition, the module's mounting holes are compatible with the structure of Lego series, thus we can extend the module to the the Lego series.

2. Parameters

Voltage	DC 5-15V
Quiescent current	<50uA
Control signal	digital signal
Trigger mode	:L Non-repeatable trigger/H repeatable trigger

Maximum detection distance	7m
Sensing Angle	<100°
Operating temperature	-10 degrees Celsius to +50 degrees Celsius

3. Wiring Diagram



4. Test Code

```
/*****PIR sensor*****/
```

* by keys

* date 2024/03/28

* www.keyestudio.com

```
*/  
byte sensorPin = 3;//Define digital port 3  
byte indicator = 13;//Define digital port 13  
void setup()  
{  
    pinMode(sensorPin,INPUT);//Set digital port 3 to input  
    pinMode(indicator,OUTPUT);//Set digital port 13 to output  
    Serial.begin(9600);//Set the baud rate  
}  
void loop()  
{  
    byte state = digitalRead(sensorPin);//Read the value of digital port 3 and  
assign it to state  
digitalWrite(indicator,state);//Control the status of digital port 13  
  
    if(state == 1)//When the port 3 is high, the serial port outputs  
corresponding characters and automatically wraps lines  
  
    Serial.println("Somebody is in this area!");  
    else if(state == 0) //When the port 3 is low, the serial port outputs  
corresponding characters and automatically wraps lines  
    Serial.println("No one!");  
    delay(500);//delay 0.5s  
}
```

5. Test Result

Wire up and upload the code to the development board, then power on, open the serial monitor and set the baud rate to 9600.

When the sensor detects someone nearby, D13 indicator on the MCU lights up and the monitor will show "1 Somebody is in this area!" , otherwise it will light off and " 0 No one!" will be shown.

