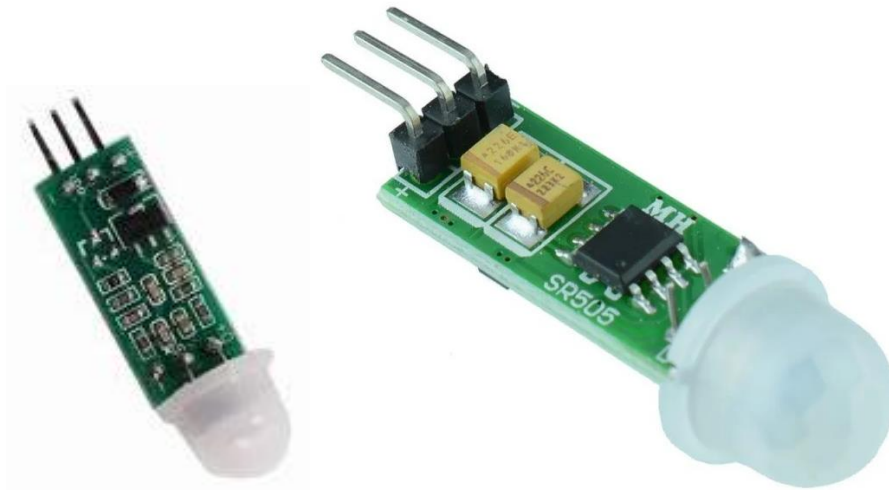


HC-SR505 Mini PIR Motion Sensor Infrared Detector Module

Introduction:



HC-SR505 PIR sensor is a module that works on infrared technology. This sensor is mainly used to sense the object's motion by measuring the changes within the IR light radiation level which radiates from different objects.

Features:

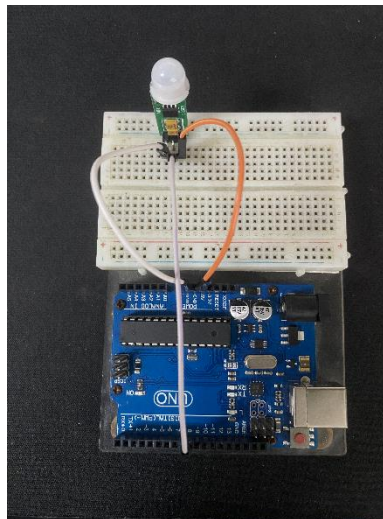
- High sensitivity and reliable, work under super low voltage
- Based on advanced infrared automatic control technology
- Sensor module will be automatically triggered when someone enters its detection range.
- Small size easy for operation.

Specification:

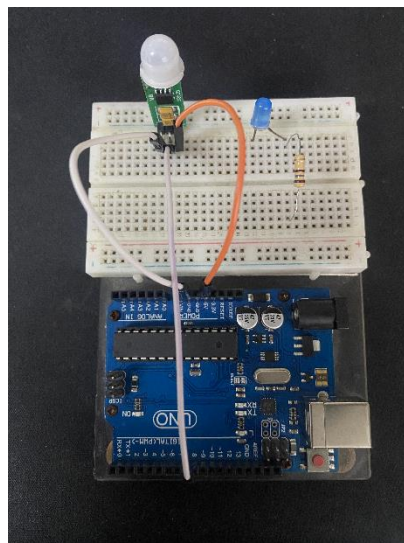
- Operating Voltage Range: DC4.5-20V
- Static Current: <60uA
- Output Level: -
 - High 3.3v
 - Low 0v

Procedures: -

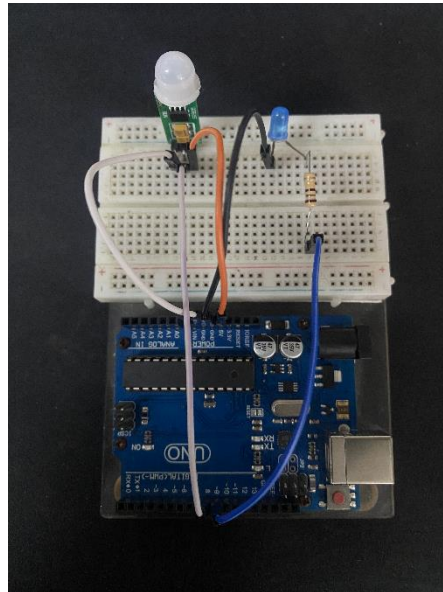
Step 1: Mini PIR Motion Sensor module has three pins: GND, I/O, and VCC. The GND pin is connected to ground, the I/O pin is the signal pin, and the VCC is the power supply.



Step 2: LED pin out cathode is connected to ground, pin out anode connected to the resistor.



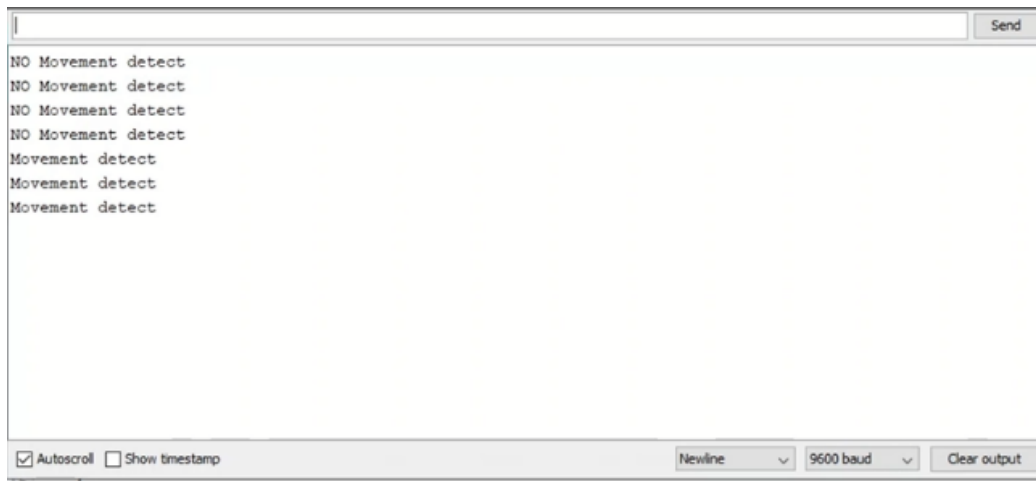
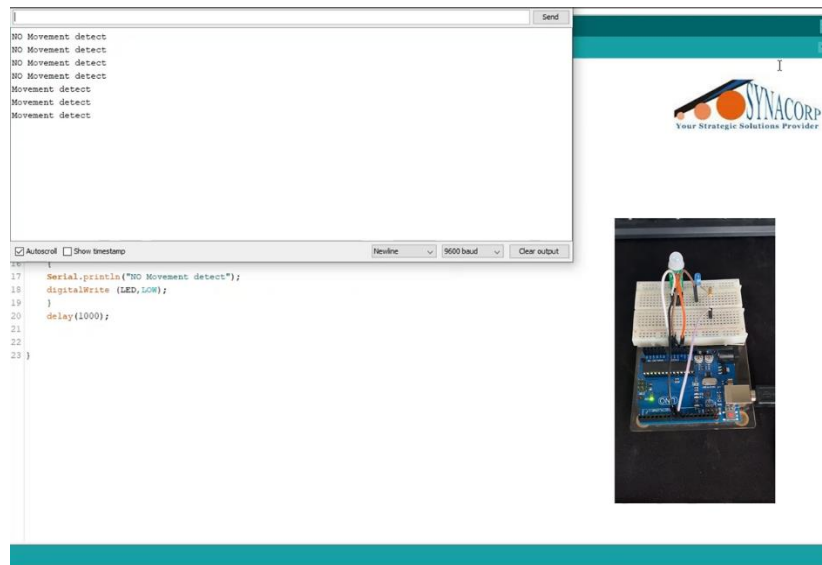
Step 3: After that, the other resistor pin is connected to the signal pin.



Step 3: Open Arduino IDE on PC and insert the given code below and open serial monitor.

```
#define SENSOR 8
#define LED 9
void setup() {
  Serial.begin(9600);
  pinMode(SENSOR,INPUT);
  pinMode(LED,OUTPUT);
  pinMode(LED,LOW);
}
void loop () {
  if(digitalRead(SENSOR)==HIGH)
  {
    Serial.println("Movement detect");
    digitalWrite (LED,HIGH);
  }
  else
  {
    Serial.println("NO Movement detect");
    digitalWrite (LED,LOW);
  }
  delay(1000);
}
```

Step 4: Lastly, test the mini pir motion sensor by put any obstacle within up to 12 feet (3.65 meters) away. Serial monitor will show the result of sensor detection.



Application:

- Lighting Controls.
- Thermostats And HVAC Systems.
- Smart Home and IoT.
- IP Cameras
- Surveillance Systems.