

INFRARED MOTION SENSOR

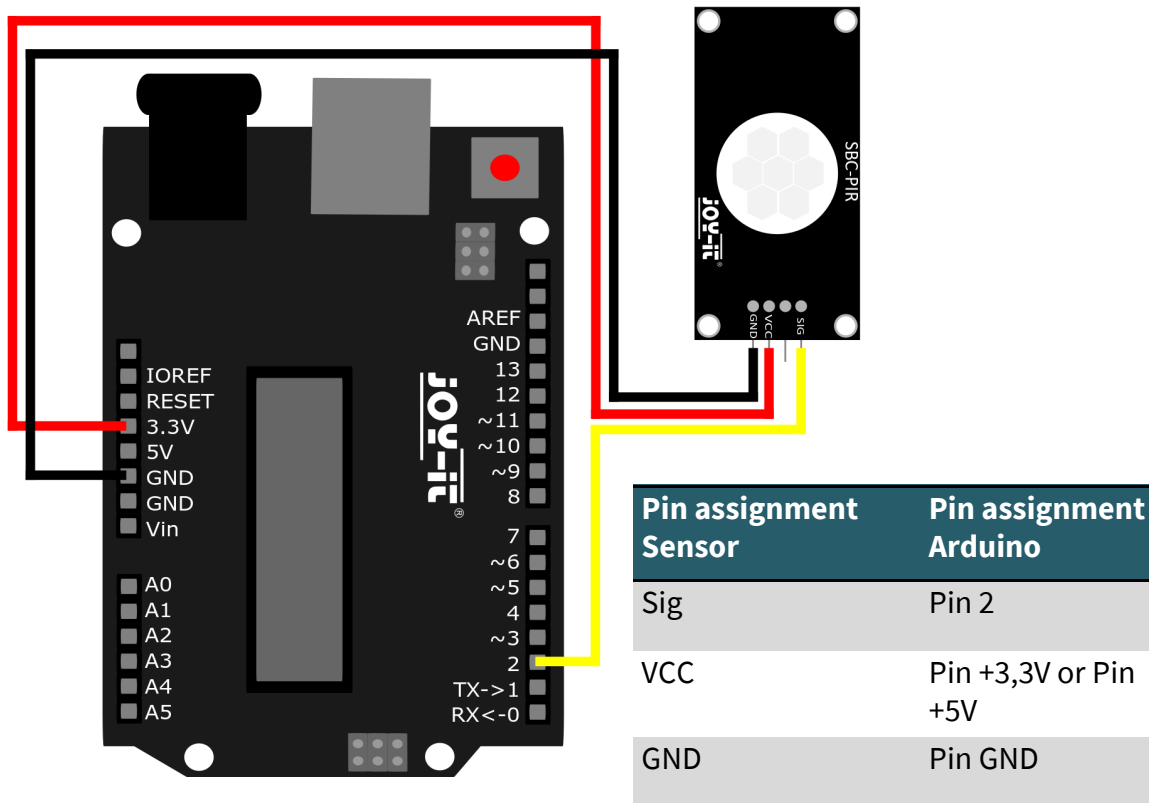
SBC-PIR



1. GENERAL INFORMATION

Dear customer,
thank you very much for choosing our product.
In following, we will introduce you to what to observe while starting up
and using this product.
Should you encounter any unexpected problems during use, please do
not hesitate to contact us.

2. USE WITH ARDUINO



2.1 CODE EXAMPLE ARDUINO

After connecting the SBC-PIR, as shown above, we will now connect the Arduino to our PC using the included cable. Then we will open our Arduino IDE. If you don't have it yet you can download it [here](#) and install it. After that we select our Arduino under **Tools > Port**. Under **Tools > Board** we select "Arduino Uno" and under **Tools > Programmer** we select "ArduinoISP".

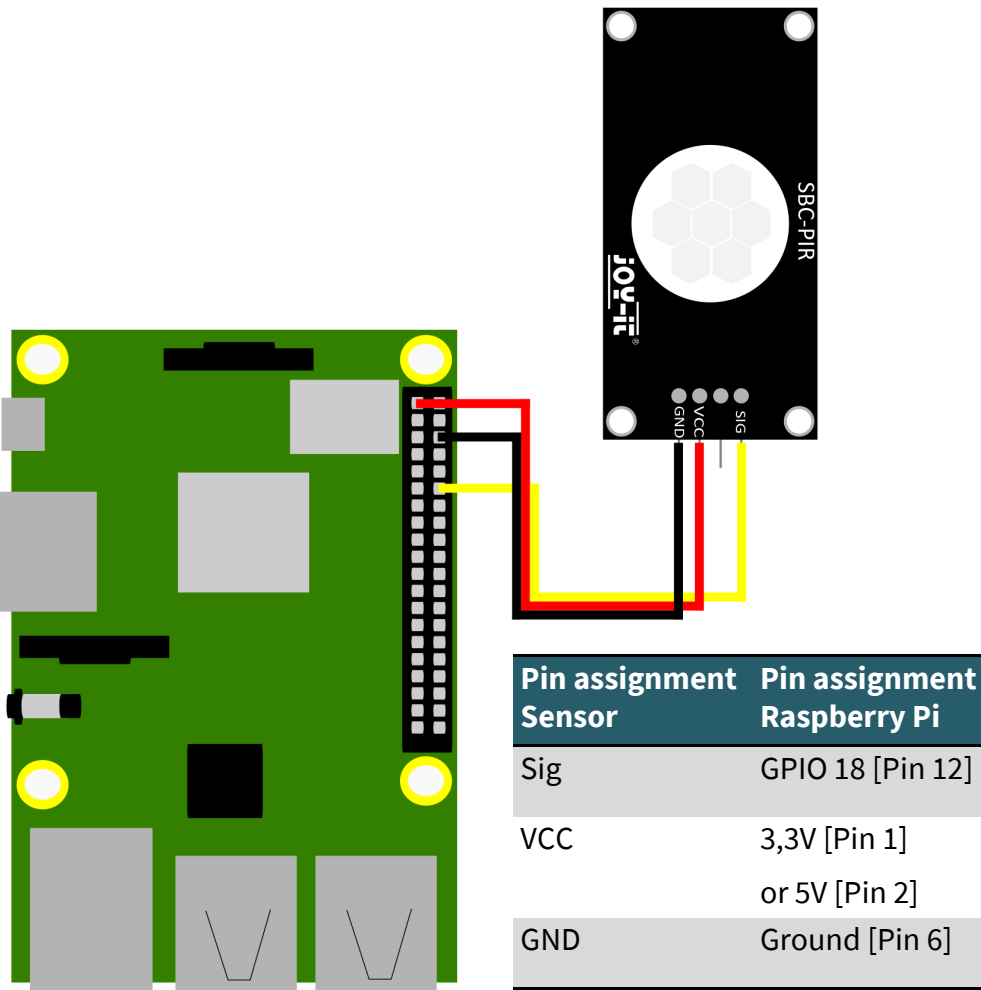
After the above steps we will now simply copy the following code into our IDE.

```
#define PIR_MOTION_SENSOR 2 //PIN for the PIR-Sensor
#define LED 13 //PIN for the OnBoard LED
int sensorValue;

void setup()
{
  // Pin setup
  pinMode(PIR_MOTION_SENSOR, INPUT);
  pinMode(LED, OUTPUT);
  Serial.begin(9600);
}

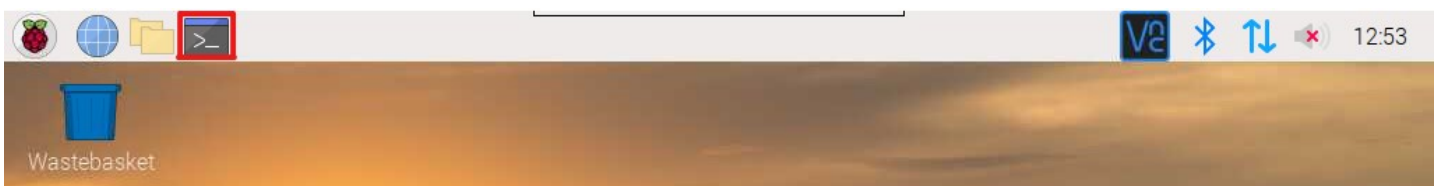
void loop()
{
  sensorValue = digitalRead(PIR_MOTION_SENSOR);
  if(sensorValue == HIGH)
  {
    Serial.println("Movement detected");
    delay(1000);
  }
  else
  {
    Serial.println("No movement detected");
    delay(1000);
  }
}
```

3. USE WITH RASPBERRY PI

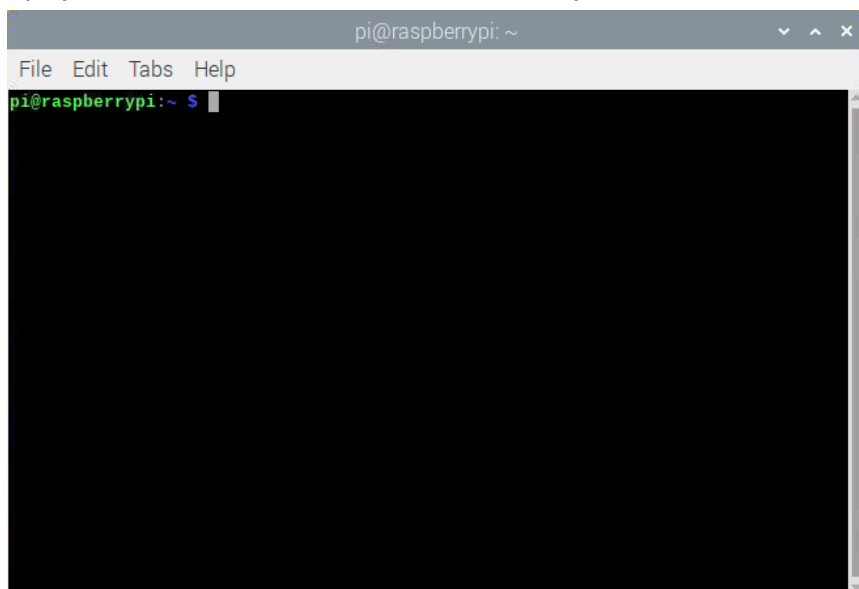


3.1 CODE EXAMPLE RASPBERRY PI

After connecting the SBC-PIR, as shown above, we will now connect the Raspberry Pi to a screen as well as we connect a mouse and keyboard. After the setup we will open the console.



After the above steps you should see this window in front of you.



3.1 CODE EXAMPLE RASPBERRY PI

After the above steps we will now create a new file by

```
sudo nano SBC-PIR.py
```

and copy the following code into the new file opened by going to **Edit>Paste**

```
import RPi.GPIO as GPIO
import time

GPIO.setmode(GPIO.BCM)

#Initialization of the SCB-PIR on PIN 12
PIR = 18
GPIO.setup(PIR, GPIO.IN)

print ("PIR-Sensor aktive!")

try: # Start of a Loop
    while True:
        if(GPIO.input(PIR) == 0): # When Sensor Input = 0
            print("No movement...") # When the print command is executed
            time.sleep(0.5) # wait 0,5 second
        elif(GPIO.input(PIR) == 1): # When Sensor Input = 1
            print("Movement detected!") # When the print command is executed
            time.sleep(0.5) # wait 0,5 second
except KeyboardInterrupt:
    GPIO.cleanup()
```

After all this we save and exit the file with **CTRL+O ENTER CTRL+X**

You then execute the code by entering

```
sudo python3 SBC-PIR.py
```

You stop the code by using **CTRL+C**

4. ADDITIONAL INFORMATION

Our information and take-back obligations according to the Electrical and Electronic Equipment Act (ElektroG)



Symbol on electrical and electronic equipment:

This crossed-out dustbin means that electrical and electronic appliances do not belong in the household waste. You must return the old appliances to a collection point.

Before handing over waste batteries and accumulators that are not enclosed by waste equipment must be separated from it.

Return options:

As an end user, you can return your old device (which essentially fulfils the same function as the new device purchased from us) free of charge for disposal when you purchase a new device.

Small appliances with no external dimensions greater than 25 cm can be disposed of in normal household quantities independently of the purchase of a new appliance.

Possibility of return at our company location during opening hours:

SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn, Germany

Possibility of return in your area:

We will send you a parcel stamp with which you can return the device to us free of charge. Please contact us by email at Service@joy-it.net or by telephone.

Information on packaging:

If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging.

5. SUPPORT

If there are still any issues pending or problems arising after your purchase, we will support you by e-mail, telephone and with our ticket support system.

Email: service@joy-it.net

Ticket system: <http://support.joy-it.net>

Telephone: +49 (0)2845 98469-66 (10-17 o'clock)

For further information please visit our website:

www.joy-it.net