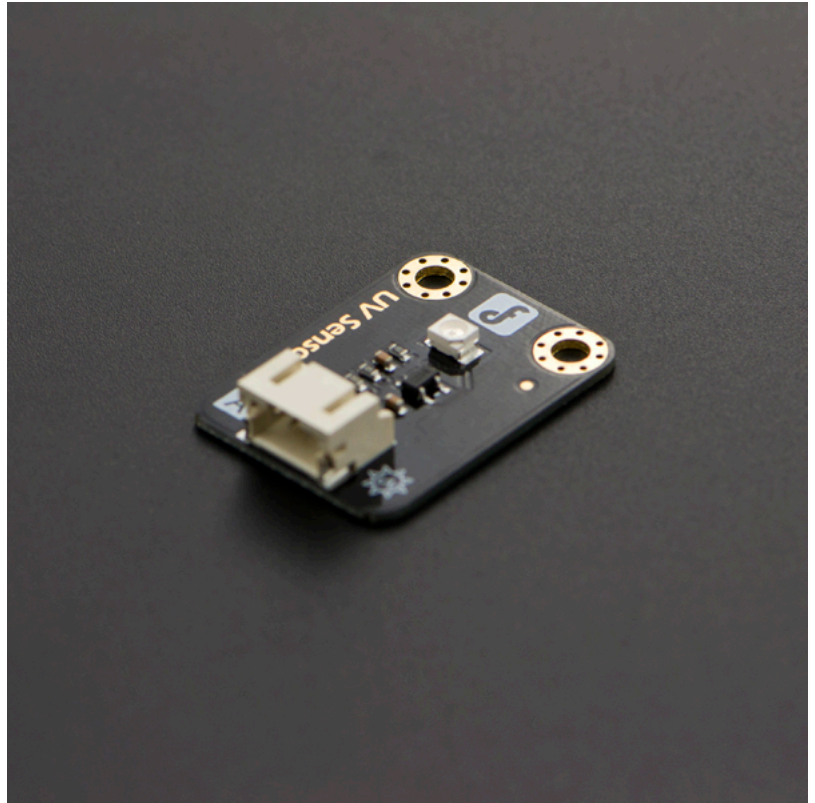


# UV sensor SKU SEN0162

## Introduction

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This UV Sensor used GUVA-S12SD chip is suitable for detecting the UV radiation in sunlight. It can be used in UV Index Monitoring, DIY project, UV-A Lamp Monitoring, Plants growing Environmental monitoring...etc. It can detect the UV wavelength of 200-370nm, fast response, linear analog voltage signal output. Small size, easy for installing. With the diagram of the world health organization UV index grading standards, you can know the UV index from the sensor directly.



## Applications

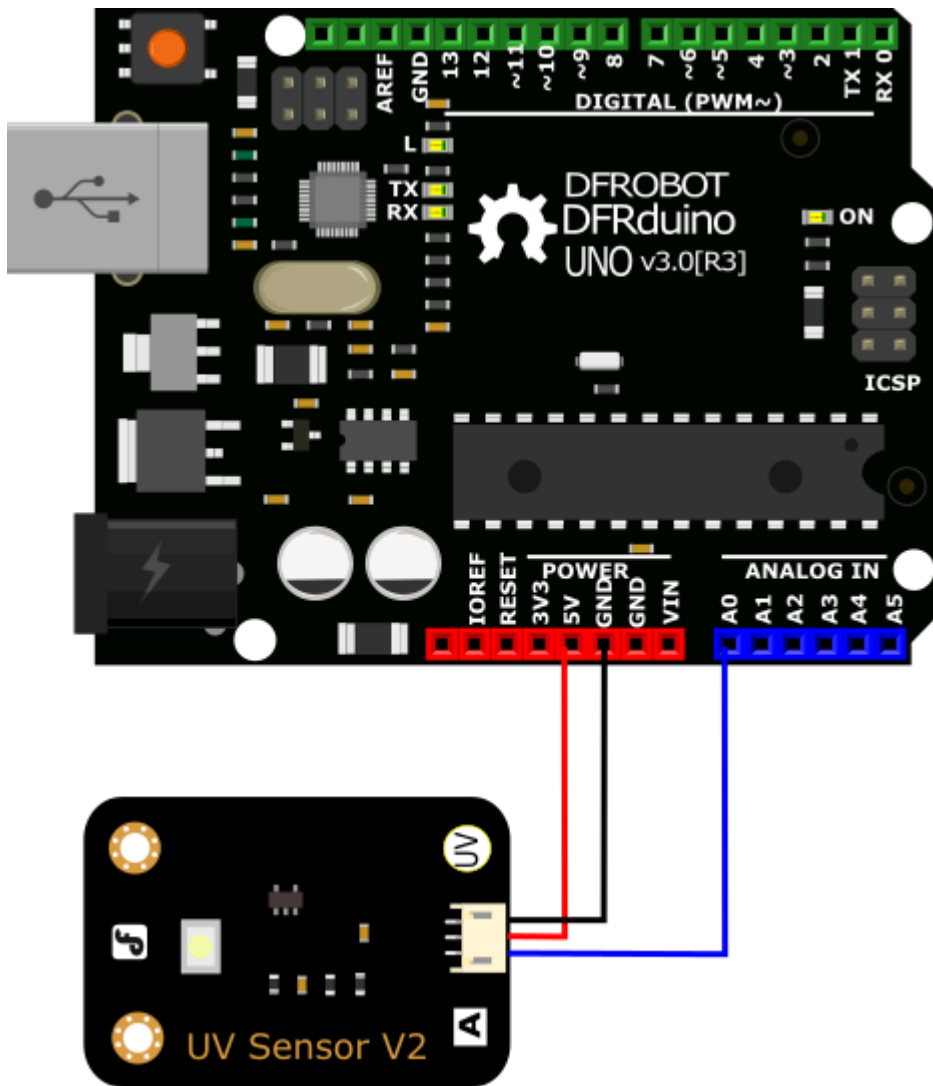
- UV-A Lamp Monitoring
- UV Index Monitoring
- DIY UV electronic project,etc...

## Specification

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- Operating Voltage: 5V
- Output voltage: DC 0-1V(Corresponding 0-10 UV index)
- Operating Current: 0.06mA(0.1mA max)
- UV wavelength detect: 200-370nm
- Test accuracy:  $\pm 1$ UV INDEX
- Response time: <0.5s
- Operating temperature: -20°C-85°C
- Dimension: 30 x 22mm

# Diagram



UV Index	0	1	2	3	4	5
Vout(mV)	<50	227	318	408	503	606
Analog Value	<10	46	65	83	103	124
UV Index	6	7	8	9	10	11 <sup>+</sup>
Vout(mV)	696	795	881	976	1079	1170+
Analog Value	142	162	180	200	221	240

💡 **Note:** The Analog Value in the diagram above is calculated based on the ADC of Arduino UNO R3 (10-bit, reference voltage 5V). If using other MCUs (such as ESP32) with a different ADC reference voltage and precision, please make the corresponding conversion.

## Sample Code

```
/*  
# This Sample code is for testing the UV Sensor .  
#Connection:  
    VCC-5V  
    GND-GND  
    OUT-Analog pin 0  
*/  
  
void setup() {  
    Serial.begin(9600); // open serial port, set the baud rate to 9600 bps  
}  
  
void loop() {  
    int sensorValue;  
    int analogValue = analogRead(A0); //connect UV sensors to Analog 0  
    if (analogValue < 20) {  
        sensorValue = 0;  
    } else {  
        sensorValue = 0.05 * analogValue - 1;  
    }  
  
    Serial.print("UV Index: ");  
    if (sensorValue < 12) Serial.println(sensorValue); //print the value t  
    else Serial.println("11+ Warning: High Ultraviolet! Exceeded UV index r  
    delay(1000);  
}
```



Get **UV Sensor (SKU:SEN0162)** from DFRobot Store or **DFRobot Distributor**.