



## DFRobot Ambient Light Sensor SKU: DFR0026



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### Introduction

Here comes DFRobot's new Analog Ambient Light Sensor. Brand new design and much more convenient to use. This module helps you to detect the light density and reflect the analog voltage signal back to an Arduino controller. You can set the threshold of voltage level to trigger other units on an Arduino project.

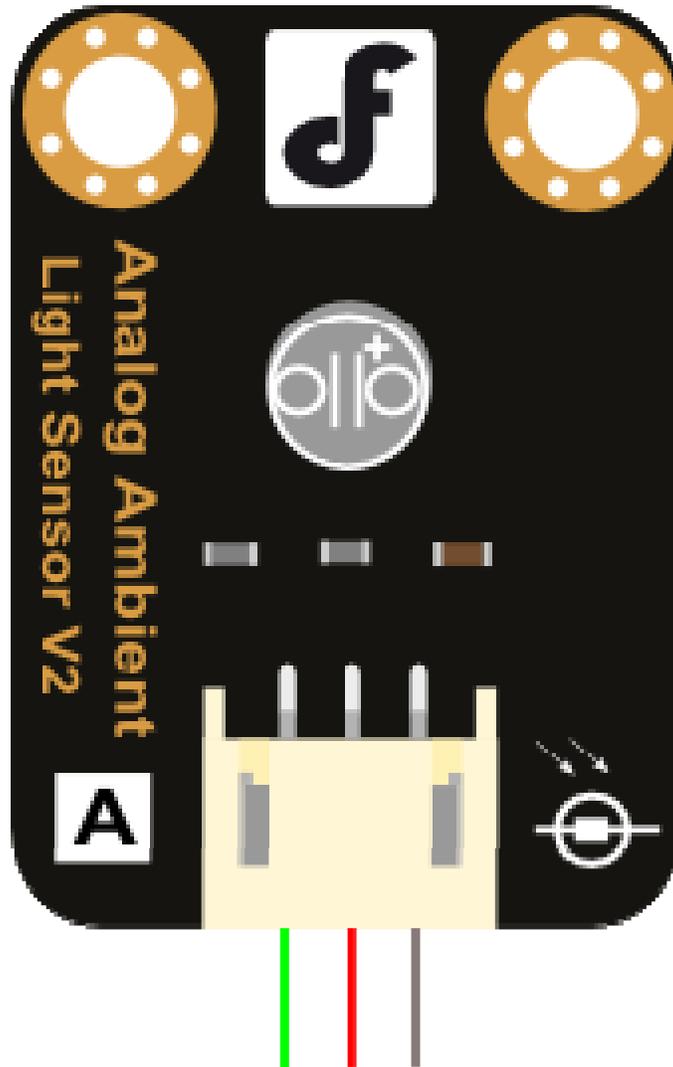
### Specification

- Supply Voltage: 3.3V to 5V
- Illumination range : 1 Lux to 6000 Lux
- Responsive time : 15us
- Interface: Analog
- Size: 22x30mm

## Application

- Automatic screen brightness control

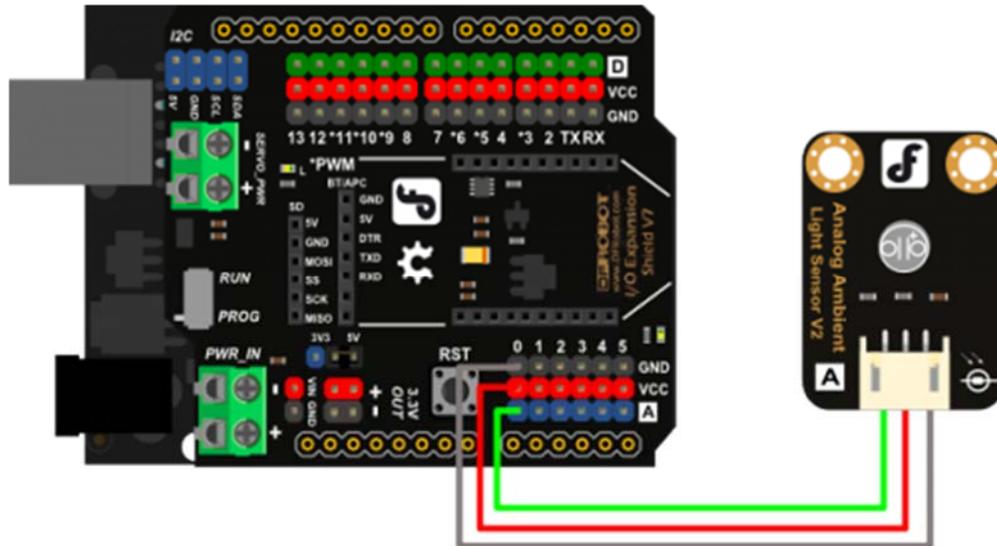
## PinOut



| Color | Pin |
|-------|-----|
| GREEN | S   |
| RED   | VCC |
| BLACK | GND |

# Tutorial

## Connection Diagram



| Arduino | Sensor |
|---------|--------|
| A0      | GREEN  |
| 5V      | RED    |
| GND     | GRAY   |

## Sample Code

```
void setup()  
{  
  Serial.begin(9600); // open serial port, set the baud rate to 9600 bps  
}  
void loop()  
{  
  int val;  
  val=analogRead(0); //connect grayscale sensor to Analog 0  
  Serial.println(val,DEC); //print the value to serial  
}
```

```
    delay(100);  
}
```

## Result

Open the serial port monitor, set the baud rate according to the program for 9600. The light intensity around the sensor is different, the received data is also different. The more light, the bigger the data.

## FAQ

**Q1.** Some general Arduino Problems/ FAQ/ Tips, very good to know.

**A1.** Click [the topic link](#) on DFRobot Forum.

**Q2.** The unit of the output from these sensors is? How can I convert it to LUX?

**A2.** Well, it is only a simple analog sensor that could show you the relationship of the light intensity (within its detect range) and voltage (0-5V). If you want to transfer the voltage to unit in LUX, then well, it requires that you have a commercial Light Intensity Meter [like this](#) that can display LUX info, then you can match the readings to the sensor's analog reading, then you could a map to describe the relationship of voltage and ambient light density.

For any question/advice/cool idea to share, please visit [DFRobot Forum](#).