

DFRobot Ambient Light Sensor SKU: DFR0026



Contents

- 1 Introduction
- 2 Specification
- 3 Application
- 4 PinOut
- 5 Tutorial
 - 5.1 Connection Diagram
 - 5.2 Sample Code
 - 5.3 Result
- 6 FAQ

Introduction

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

Specification

Supply Voltage: 3.3V to 5V

Illumination range: 1 Lux to 6000 Lux

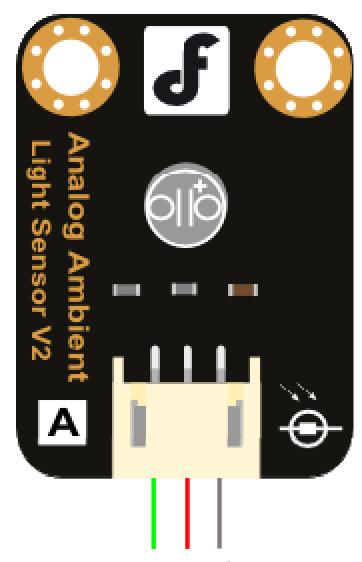
Responsive time : 15usInterface: Analog

• Size:22x30mm

Application

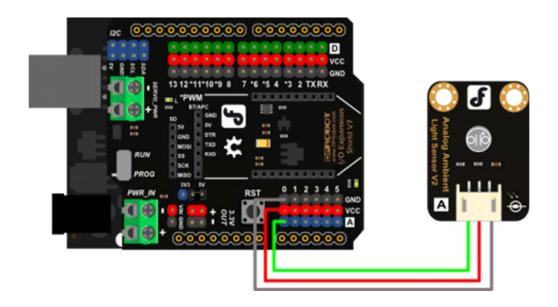
Automatic screen brightness control

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**.