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TEMT6000 ambient light sensor SKU:SEN0043

Contents

Introduction

This module uses a special ambient light detector（TMET6000） with spectral response that closely emulates the human eye. It help you to 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.

Notice: The new version of analog sensor port pin mapping has been changed as the following two features. Please check the tips for changing sensor cable pin mapping while using the I/O Expansion shield. We will continue to update. For the inconvenience caused, please understand.

Feature

- Near Human Eye Spectral Response
- Scalable Output Voltage

Specification

- Supply Voltage: DC 3.3~5.5V
- Operating Temperature: -40~85°C
- Illumination Range: 1 – 1000 Lux
- Output: analog voltage, 0 – 5V @VCC=5V
- Module Size: 30 x 22mm

Pinout

Cable Color	Description
black	GND
red	VCC
other	output

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 sensor to Analog 0
    Serial.println(val);    //print the value to serial
    delay(100);
}
```

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**.