

# Grove - Variable Color LED

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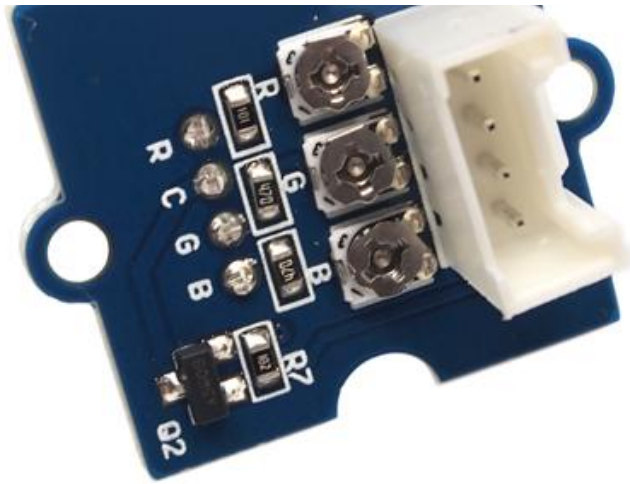
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This Grove consists of one 8mm RGB LED. It operates at 5V DC. When SIG pin is logic HIGH, the RGB LED will light up. Perfect for use on Seeduino digital outputs, or also can be controlled by pulse-width modulation. And it uses three adjustable resistor to change the color of the RGB LED.

## Features

- Grove compatible
- Color adjustable

**Tip**

More details about Grove modules please refer to [Grove System](#)

## Application Ideas

- Toys
- Decoration

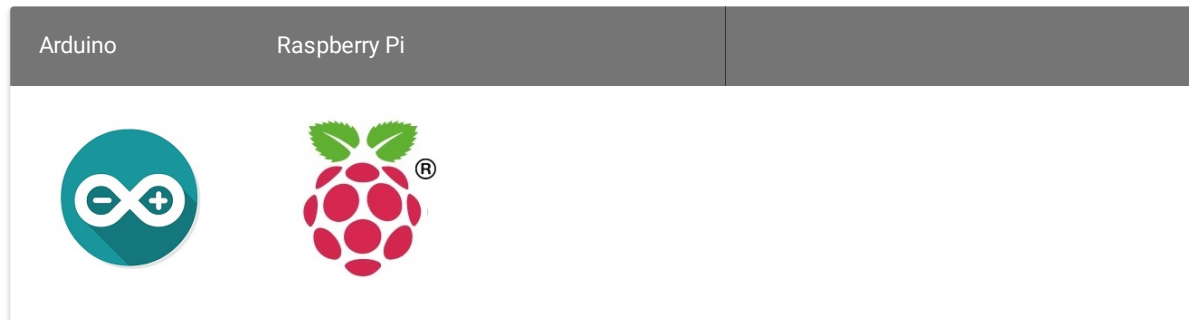
**Caution**

Be gentle while adjusting the R, G and B adjustable resistances in case of over-turning.

## Specifications

Item	Typical	Unit
Operate Voltage	5.0	VDC
Working Current	20	mA
Variable Resistor	<1	K $\Omega$

## Platforms Supported

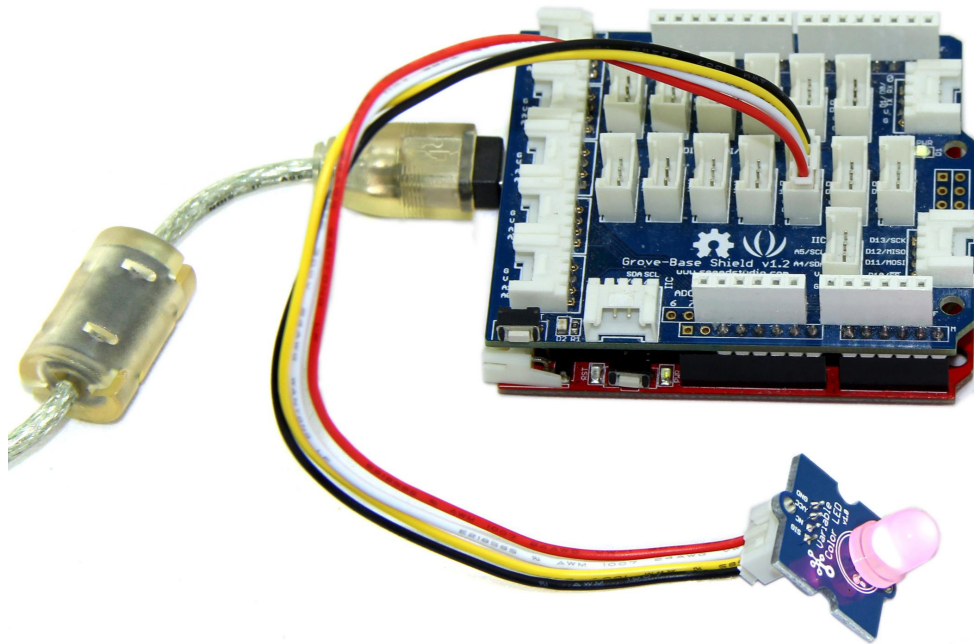
**Caution**

The platforms mentioned above as supported is/are an indication of the module's software or theoretical compatibility. We only provide software library or code examples for Arduino platform in most cases. It is not possible to provide software library / demo code for all possible MCU platforms. Hence, users have to write their own software library.

## Usage

The three resistances RED, GREEN and BLUE of the module control the R, G and B channels respectively. By adjusting the three adjustable resistances, it can turn out variable color. The thing to notice, however, is that be gentle when turning the adjustable resistances.

The following sketch demonstrates a simple application of controlling its brightness. As the picture on the below indicates, the Variable Color LED is connected to digital port 9 of the [Grove - Base Shield](#). The hardware installation is as follows:



- Copy and paste code below to a new Arduino sketch.

Demo code like:

```
1  int ledPin = 9;    // LED connected to digital pin 9
2
3  void setup() {
```



```
4     // nothing happens in setup
5 }
6
7 void loop() {
8     // fade in from min to max in increments of 5 points:
9     for(int fadeValue = 0?; fadeValue <= 255; fadeValue +=5) {
10         // sets the value (range from 0 to 255):
11         analogWrite(ledPin, fadeValue);
12         // wait for 30 milliseconds to see the dimming effect
13         delay(30);
14     }
15
16     // fade out from max to min in increments of 5 points:
17     for(int fadeValue = 255?; fadeValue >= 0; fadeValue -=5) {
18         // sets the value (range from 0 to 255):
19         analogWrite(ledPin, fadeValue);
20         // wait for 30 milliseconds to see the dimming effect
21         delay(30);
22     }
23 }
```

- Upload the code. Adjust the three adjustable resistances, I am sure you will like it. Have a try!

Schematic Online Viewer



## Resources

- [Variable Color LED eagle\\_file](#)



## Tech Support

Please submit any technical issue into our [forum](#).