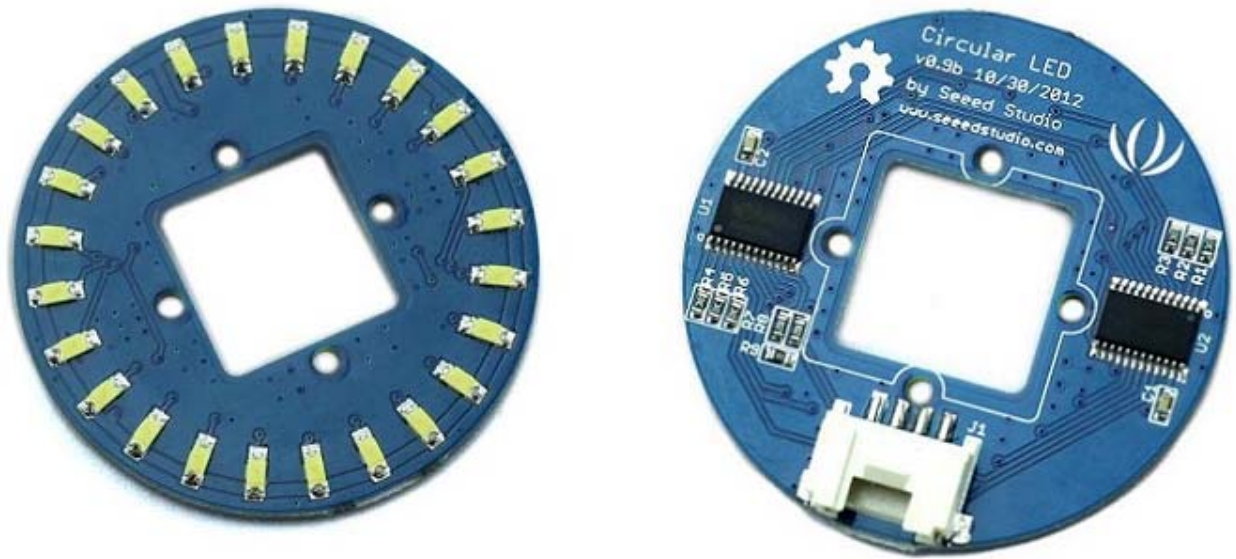


# Grove - Circular LED

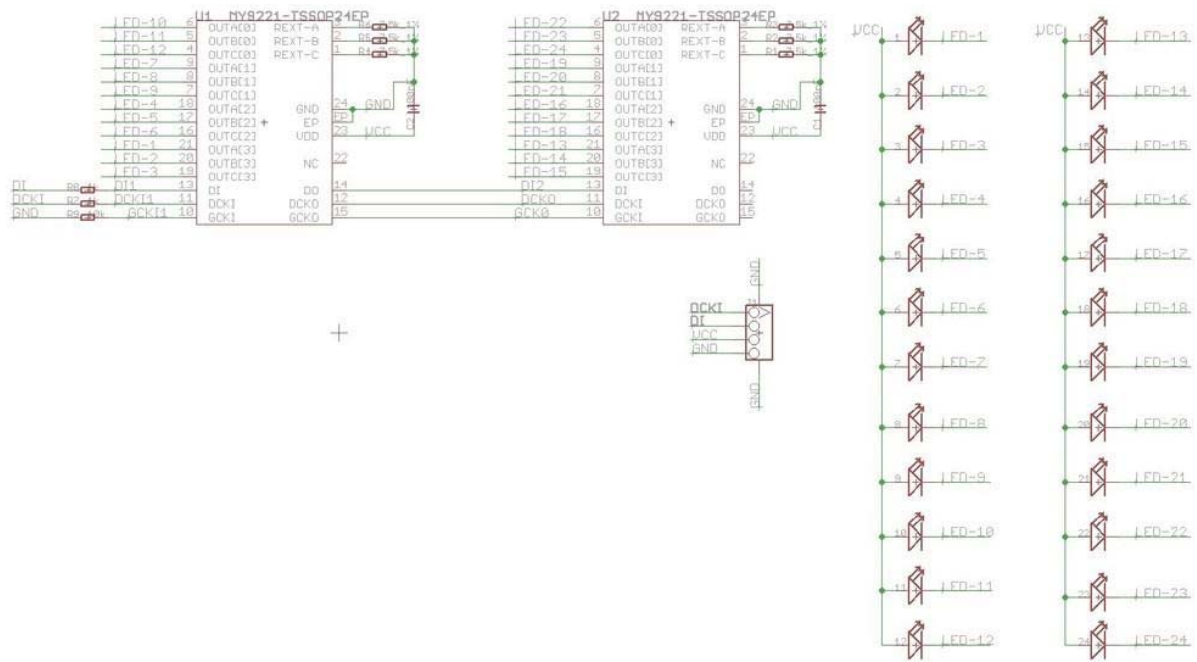


This is a unique ring– it has a flirid body with 24 controllable LEDs. Maybe it will drive the inspiration out of you to make a glowing magic ring! There is a 1\*1 square hollow-out in the middle of this module, where you can place a Grove Encoder in and make it a rotary visual encoder!

## Features

- Circular shape
- 24 LEDs, about 5.5 mA drive current for each channel.
- Controllable LEDs with flirid effects
- Grove Interface.

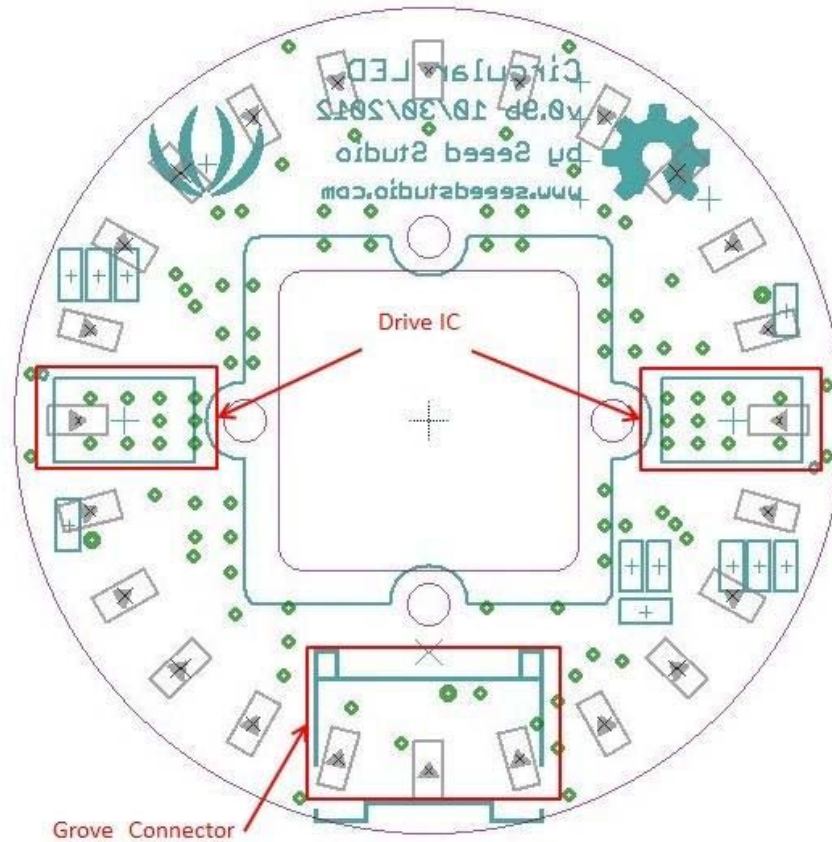
## Schematic



## Specification

Item	Min	Typical	Max	Unit
Voltage	4.5	5	5.5	VDC
Current	/	5.5 for each LED		mA
Dimension	Ring Form:4.5 diameter			mm
Net Weight	12			g

## Interface



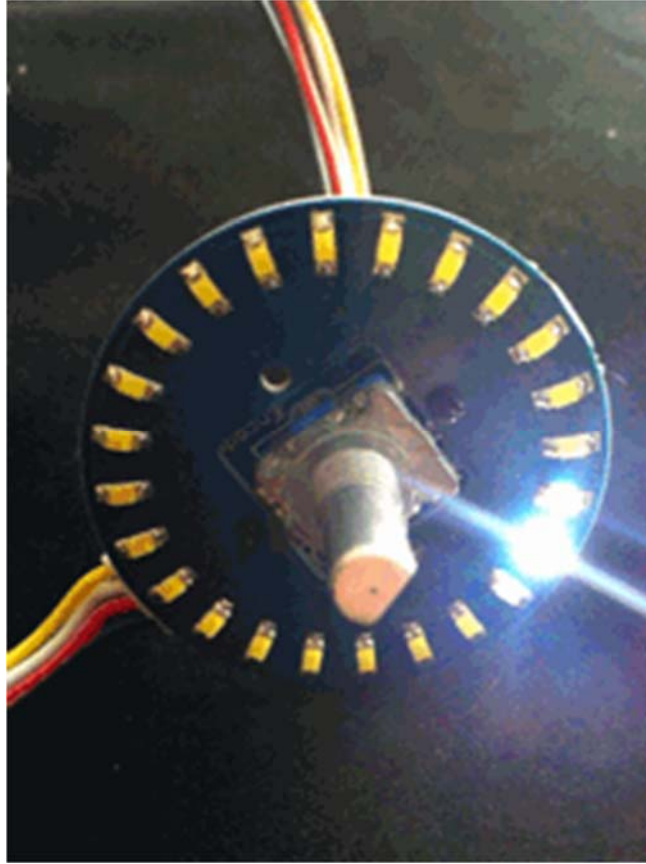
## Usage

### Hardware

With the definition "CircularLED circularLED1(10,9);" in the demo, please connect this module to the D9 Grove Connector of [Grove base shield](#) with the 4- pin Grove cable. You can also connect the "Yellow" signal to D9 and "White" to D10 with jumper wires.

### Software

Please download the [CircularLED Library](#) and test this module with [\\_CircularLEDtest\\_](#) example. You can click [here](#) to learn how to upgrade the sketches.



Please also refer to the [Grove-Encoder](#) to learn more about this module.

## Play with Codecraft

### *Hardware*

**Step 1.** Connect a Grove - Circular LED to port D5 of a Base Shield.

**Step 2.** Plug the Base Shield to your Seeeduino/Arduino.

**Step 3.** Link Seeeduino/Arduino to your PC via an USB cable.

### *Software*

**Step 1.** Open [Codecraft](#), add Arduino support, and drag a main procedure to working area.

### **Note**

If this is your first time using Codecraft, see also [Guide for Codecraft using Arduino](#).

**Step 2.** Drag blocks as picture below or open the cdc file which can be downloaded at the end of this page.

```
setup
loop
  Circular LED PIN D5 show 0
  Delay ms 40
  Circular LED PIN D5 show 1
  Delay ms 40
  Circular LED PIN D5 show 2
  Delay ms 40
  Circular LED PIN D5 show 3
  Delay ms 40
  Circular LED PIN D5 show 4
  Delay ms 40
  Circular LED PIN D5 show 5
  Delay ms 40
  Circular LED PIN D5 show 6
  Delay ms 40
  Circular LED PIN D5 show 7
  Delay ms 40
  Circular LED PIN D5 show 8
  Delay ms 40
  Circular LED PIN D5 show 9
  Delay ms 40
  Circular LED PIN D5 show 10
  Delay ms 40
  Circular LED PIN D5 show 11
  Delay ms 40
  Circular LED PIN D5 show 12
  Delay ms 40
  Circular LED PIN D5 show 13
  Delay ms 40
  Circular LED PIN D5 show 14
  Delay ms 40
  Circular LED PIN D5 show 15
  Delay ms 40
  Circular LED PIN D5 show 16
  Delay ms 40
  Circular LED PIN D5 show 17
  Delay ms 40
  Circular LED PIN D5 show 18
  Delay ms 40
  Circular LED PIN D5 show 19
  Delay ms 40
  Circular LED PIN D5 show 20
  Delay ms 40
  Circular LED PIN D5 show 21
  Delay ms 40
  Circular LED PIN D5 show 22
  Delay ms 40
  Circular LED PIN D5 show 23
  Delay ms 40
```

Upload the program to your Arduino/Seeeduino.

### **Success**

When the code finishes uploaded, you will see the LED run in the circular.

### **Source**

- [CircularLED Library](#)
- [Grove Circular LED schematics PDF File](#)
- [Grove-circular LED eagle files](#)
- [Codecraft CDC File](#)

### **Tech Support**

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