

Grove - OLED Display 0.96" (SSD1315)



The Grove - OLED Display 0.96" (SSD1315) is a monochrome(white) 128×64 pixels passive display matrix module with Grove I2C Interface.

Thanks to the new SSD1315 chip, it can work with 3.3V, so that we removed the expensive DC-DC boost circuit. And with the onboard level shift circuit, the new Grove - OLED Display 0.96" can work with 3.3V and 5V platform. That is to say, you can use it easily as an Arduino OLED display, Raspberry Pi OLED display, etc.

Get One Now 

[<https://www.seeedstudio.com/Grove-OLED-Display-0-96-SSD1315-p-4294.html>]

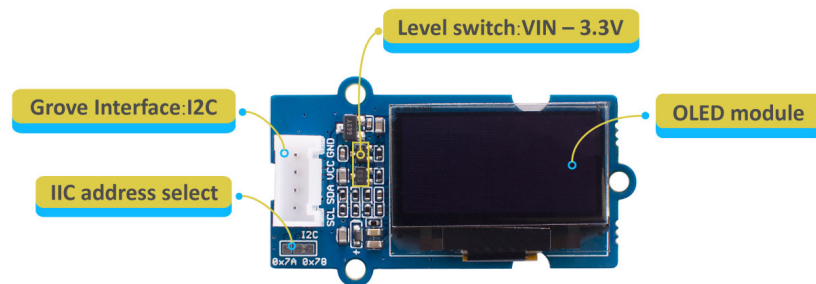
Feature

- 3.3V/5V compatible
- Changeable I2C address
- Low power consumption
- Monochrome(white) 128×64 pixels
- High contrast, high brightness
- Wide operating temperature range: -40°C ~ +85 °C

Specification

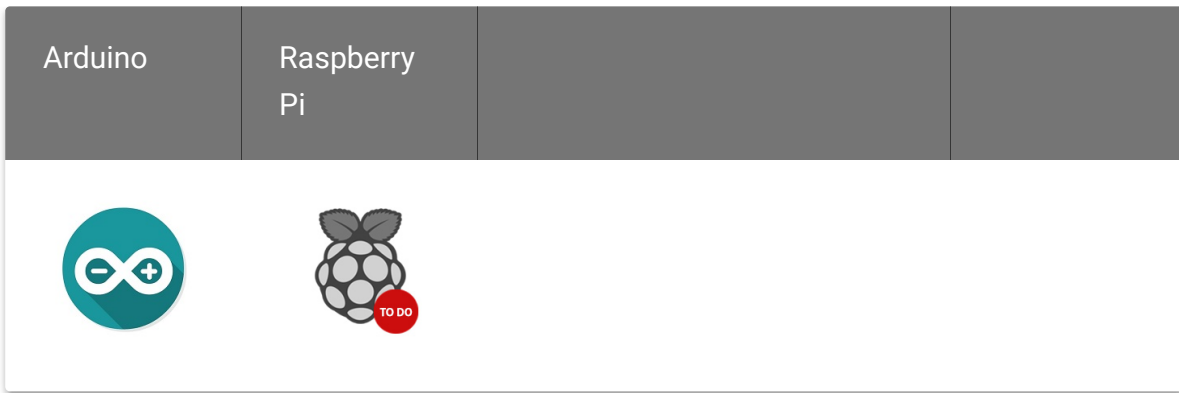
Parameter	Value
Input voltage	3.3V / 5V
Output Voltage	0 ~ 2.3V
Pixels	128 x 64
Temperature Range	-40°C ~ +85 °C
Interface	I2C/Digital

Hardware Overview



[<https://files.seeedstudio.com/wiki/Grove-OLED-Display-0.96-SSD1315-/img/Grove-OLED-Display-0.96-SSD1315-pin.jpg>]

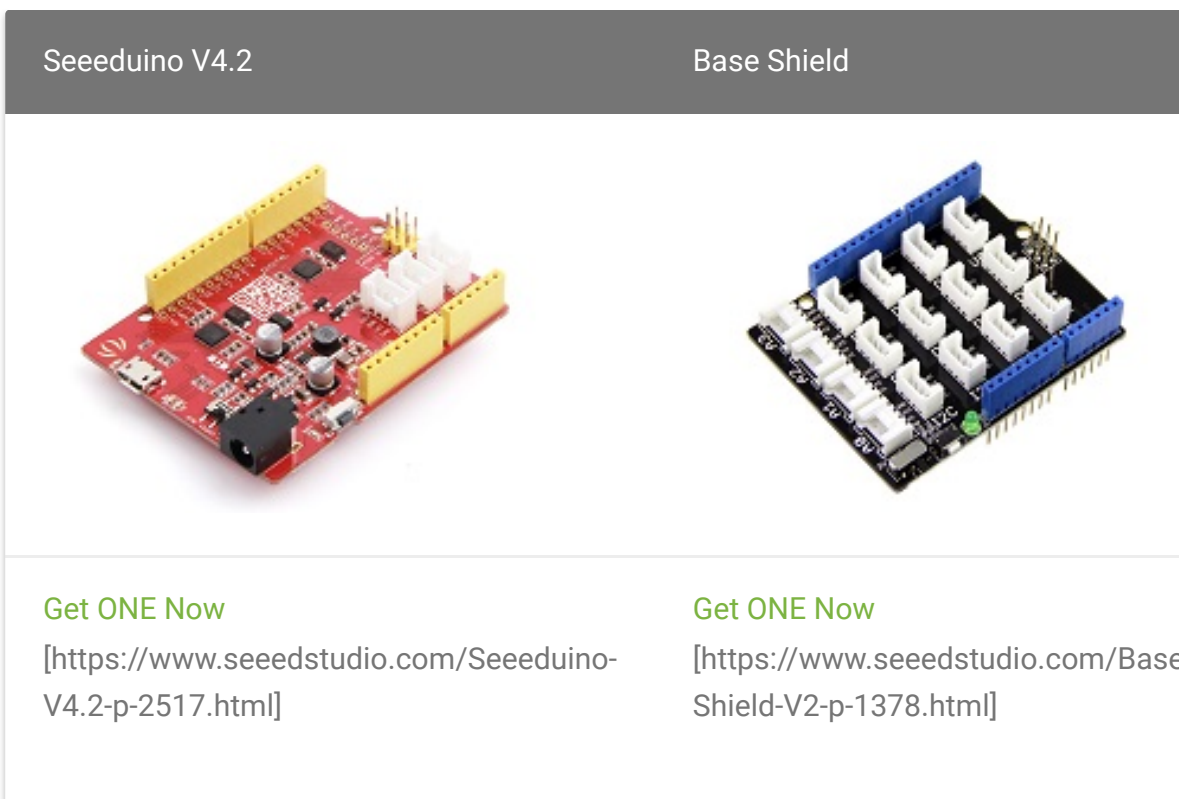
Platforms Supported



Getting Started

Play With Arduino

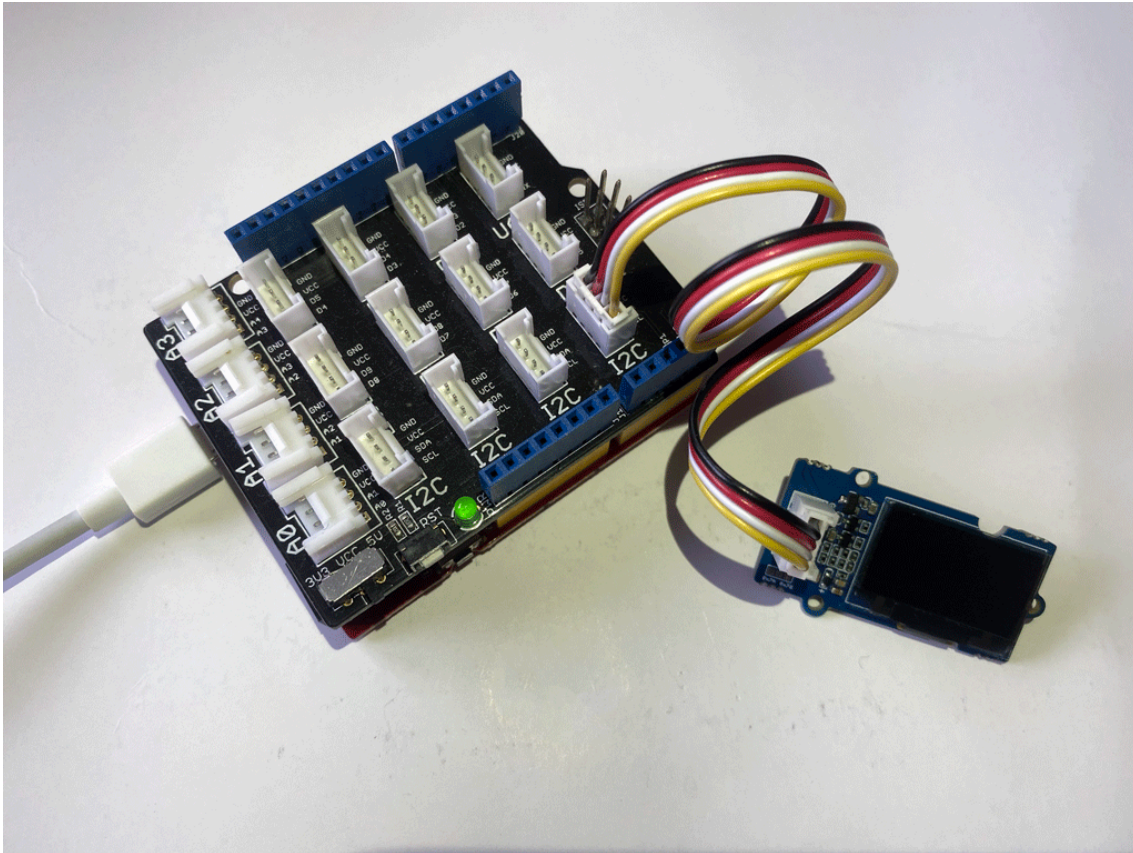
Materials required



In addition, you can consider our new [Seeduino Lotus M0+](https://www.seeedstudio.com/Seeduino-Lotus-Cortex-M0-p-2896.html) [https://www.seeedstudio.com/Seeduino-Lotus-Cortex-M0-p-2896.html], which is equivalent to the combination of Seeduino V4.2 and Baseshield.

Hardware Connection

- **Step 1.** Plug Grove - TDS Sensor to **I2C** port of Grove - Base Shield.
- **Step 2.** Plug Grove - Base Shield into Seeduino.
- **Step 3.** Connect Seeduino to a PC via a USB cable.



Software



Attention

If this is the first time you work with Arduino, we strongly recommend you to see [Getting Started with Arduino](https://wiki.seeedstudio.com/Getting_Started_with_Arduino/) [https://wiki.seeedstudio.com/Getting_Started_with_Arduino/] before the start.

- **Step 1.** Navigate to **Sketch -> Include Library -> Manage Libraries...** and Search and Install `U8g2` library in the **Library Manager**.
- **Step 2.** Open the Arduino IDE and create a new file, then copy the following code into the new file.

```
1  #include <Arduino.h>
2  #include <U8g2lib.h>
3
4  #ifdef U8X8_HAVE_HW_SPI
5  #include <SPI.h>
6  #endif
7  #ifdef U8X8_HAVE_HW_I2C
8  #include <Wire.h>
9  #endif
10
11
12  U8G2_SSD1306_128X64_NONAME_F_HW_I2C u8g2(U8G2_R0, /* clock pin, not always needed */
13
14  // U8G2_SSD1306_128X64_NONAME_F_SW_I2C u8g2(U8G2_R0, /* clock pin, not always needed */
15
16  void setup(void) {
17    u8g2.begin();
18  }
19
20  void loop(void) {
21    u8g2.clearBuffer();           // clear the internal display memory
22    u8g2.setFont(u8g2_font_ncenB08_tr); // choose a suitable font
23    u8g2.drawStr(0,10,"Hello World!"); // write something to the buffer
24    u8g2.sendBuffer();          // transfer buffer contents to display
25    delay(1000);
26  }
```

- **Step 3.** Upload the demo. If you do not know how to upload the code, please check [How to upload code](https://wiki.seeedstudio.com/Upload_Code/) [https://wiki.seeedstudio.com/Upload_Code/].
- **Step 4.** The OLED Display should look like this:



U8g2 Library Introduction

U8g2 is a monochrome graphics library for embedded devices.

U8g2 supports monochrome OLEDs and LCDs, which include our chip SSD1315.

The Arduino library U8g2 can be installed from the library manager of the Arduino IDE. U8g2 also includes U8x8 library:

U8g2

- Includes all graphics procedures (line/box/circle draw).
- Supports many fonts. (Almost) no restriction on the font height.
- Requires some memory in the microcontroller to render the display.

U8x8

- Text output only (character) device.
- Only fonts allowed with fit into a 8x8 pixel grid.
- Writes directly to the display. No buffer in the microcontroller required.

Here provides the [U8g2 Library wiki](#)

[<https://github.com/olikraus/u8g2/wiki>] as well as the [U8g2 API Reference](#) [<https://github.com/olikraus/u8g2/wiki/u8g2reference>] page.

FAQ

Q1# Example not working with other boards?

A1: The U8g2 has different modes while initialising, instead of hardware I2C, it could also use software I2C. If not working, please try to use Software I2C. For more information please visit [u8g2](#) [https://github.com/olikraus/U8g2_Arduino]. Some examples and brief introductions are also provided [here](#) [[<https://wiki.seeedstudio.com/Grove-OLED-Display-0.96-SSD1315/>](https://github.com/Seeed-</p></div><div data-bbox=)

Studio/Seeed_Learning_Space/tree/master/Grove%20-%20OLED%20Display%200.96"(SSD1315)V1.0].

Schematic Online Viewer



Resources

- **[ZIP]** [Grove - OLED Display 0.96" Schematic file](https://files.seeedstudio.com/wiki/Grove-OLED-Display-0.96-)
[<https://files.seeedstudio.com/wiki/Grove-OLED-Display-0.96->

SSD1315-/res/Grove%20-%20OLED%20Display%200.96%20(SSD1315)_v1.0.zip]

- **[PDF] OLED Module Datasheet**

[<https://files.seeedstudio.com/wiki/Grove-OLED-Display-0.96-SSD1315-/res/OEL%20Display%20Module.pdf>]

Tech Support

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

[<https://forum.seeedstudio.com/>]



[https://www.seeedstudio.com/act-4.html?utm_source=wiki&utm_medium=wikibanner&utm_campaign=newproducts]

