

## Display Data on OLED

We are going to use an OLED **1.3 inch** for this project. **So, make sure you get the correct size LED.**



Libraries to install.

- Adafruit GFX
- Adafruit SH1106 for **(1.3 inch)**

To Install Libraries

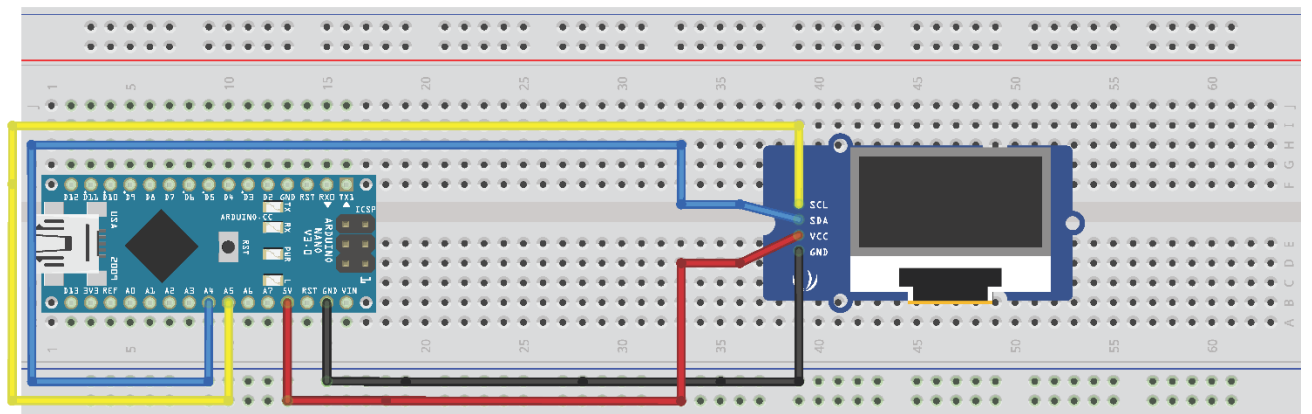
1. go to **Sketch** menu.
2. select **Include Libraries**.
3. go to **Manage Libraries**.
4. search for **Adafruit GFX** and install.
5. search for **Adafruit SH1106** for 1.3 inch and install.

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OLED works on I2C communication protocol, so we should make connection on 4 pins.

## Connections for **OLED** to **Arduino**

OLED	Arduino
VCC	5V
GND	GND
SDA	A4
SCK	A5



fritzing

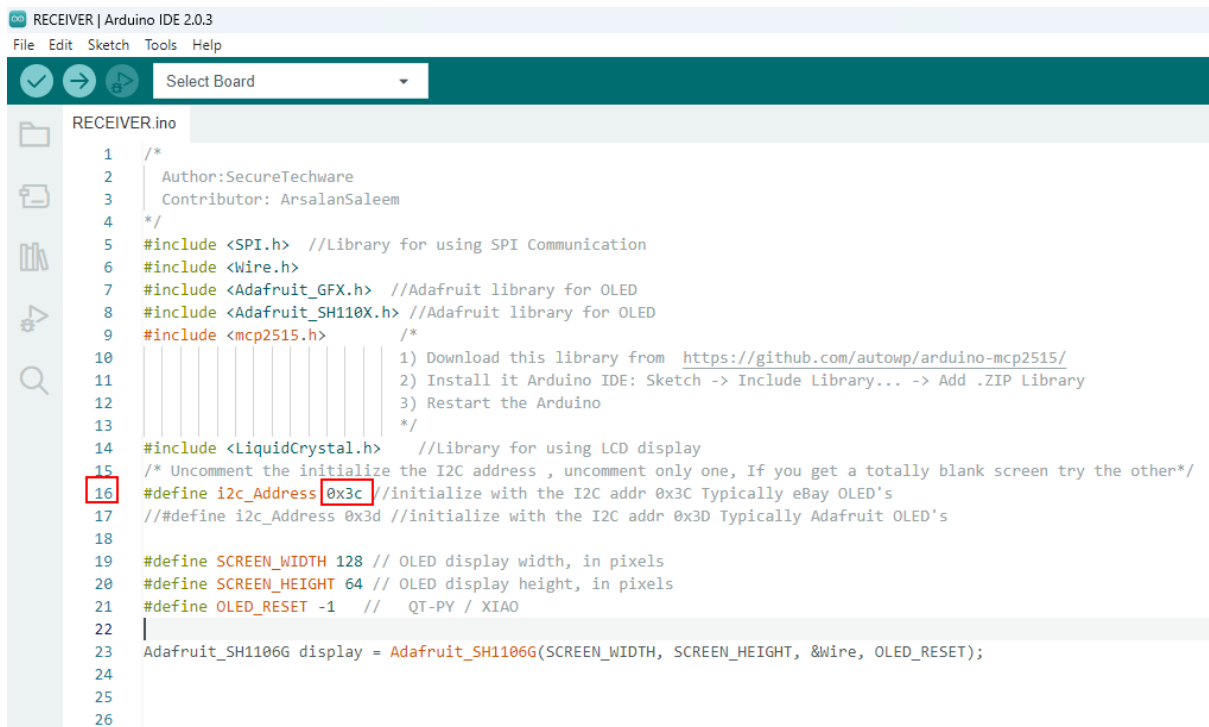
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## Find Hex Number of OLED

Every I2C device has a different hexadecimal address so first we must find the hexadecimal address of OLED.

You can use the code provided with this document to find the hexadecimal address of your OLED. (**I2CAddressFinder.ino**)

Then you can replace the address on **RECEIVER.ino** file line #16



```
RECEIVER.ino | Arduino IDE 2.0.3
File Edit Sketch Tools Help
Select Board
1 /*
2   Author:SecureTechware
3   Contributor: ArsalanSaleem
4   */
5 #include <SPI.h> //Library for using SPI Communication
6 #include <Wire.h>
7 #include <Adafruit_GFX.h> //Adafruit library for OLED
8 #include <Adafruit_SH110X.h> //Adafruit library for OLED
9 #include <mcp2515.h> /*
10 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
11 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
12 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
13 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
14 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
15 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
16 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
17 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
18 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
19 #define SCREEN_WIDTH 128 // OLED display width, in pixels
20 #define SCREEN_HEIGHT 64 // OLED display height, in pixels
21 #define OLED_RESET -1 // QT-PY / XIAO
22
23 Adafruit_SH1106G display = Adafruit_SH1106G(SCREEN_WIDTH, SCREEN_HEIGHT, &Wire, OLED_RESET);
24
25
26
```

## To Create Images into Hex

<https://diyusthad.com/image2cpp>