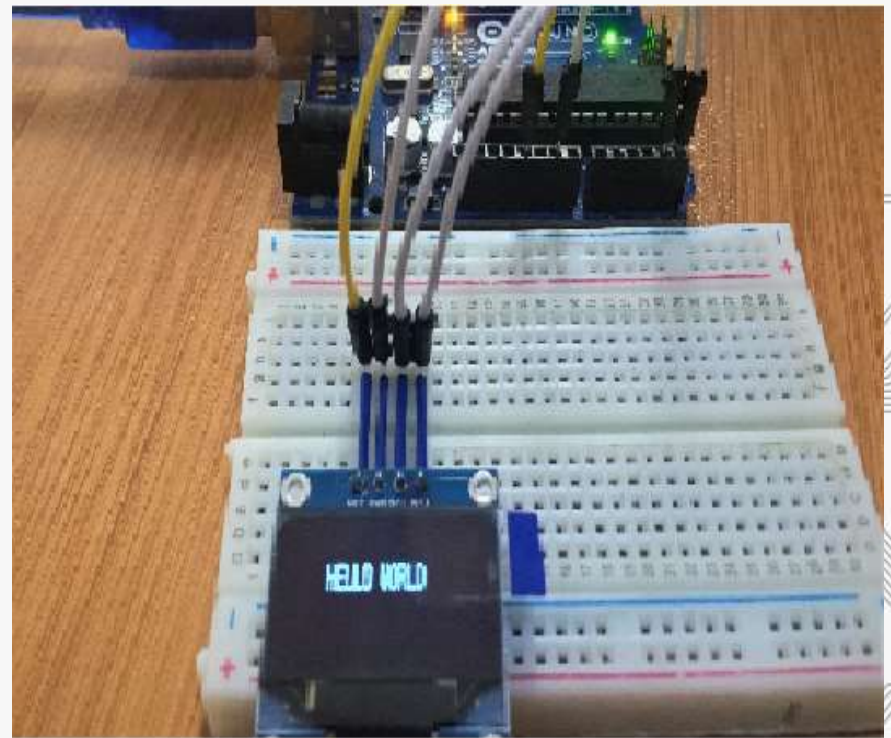
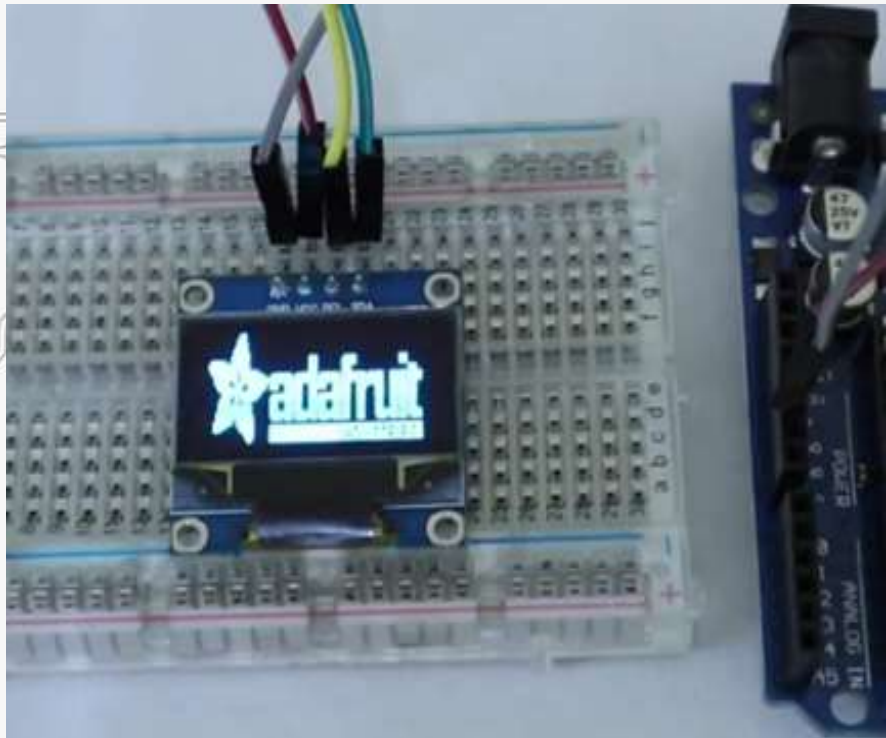


Interfacing of OLED



OLED

- OLED (Organic Light-Emitting Diode) is a self light-emitting technology composed of a thin, multi-layered organic film placed between an anode and cathode. In contrast to LCD technology, OLED does not require a backlight.
- OLED possesses high application potential for virtually all types of displays and is regarded as the ultimate technology for the next generation of flat-panel displays.

Working of OLED

- The main component in an **OLED display** is the **OLED** emitter - an organic (carbon-based) material that emits light when electricity is applied. The basic structure of an **OLED** is an emissive layer sandwiched between a cathode (which injects electrons) and an anode (which removes electrons).

Pin Diagram of OLED



Pin 1: GND

Pin 2: 3.3V to 5V

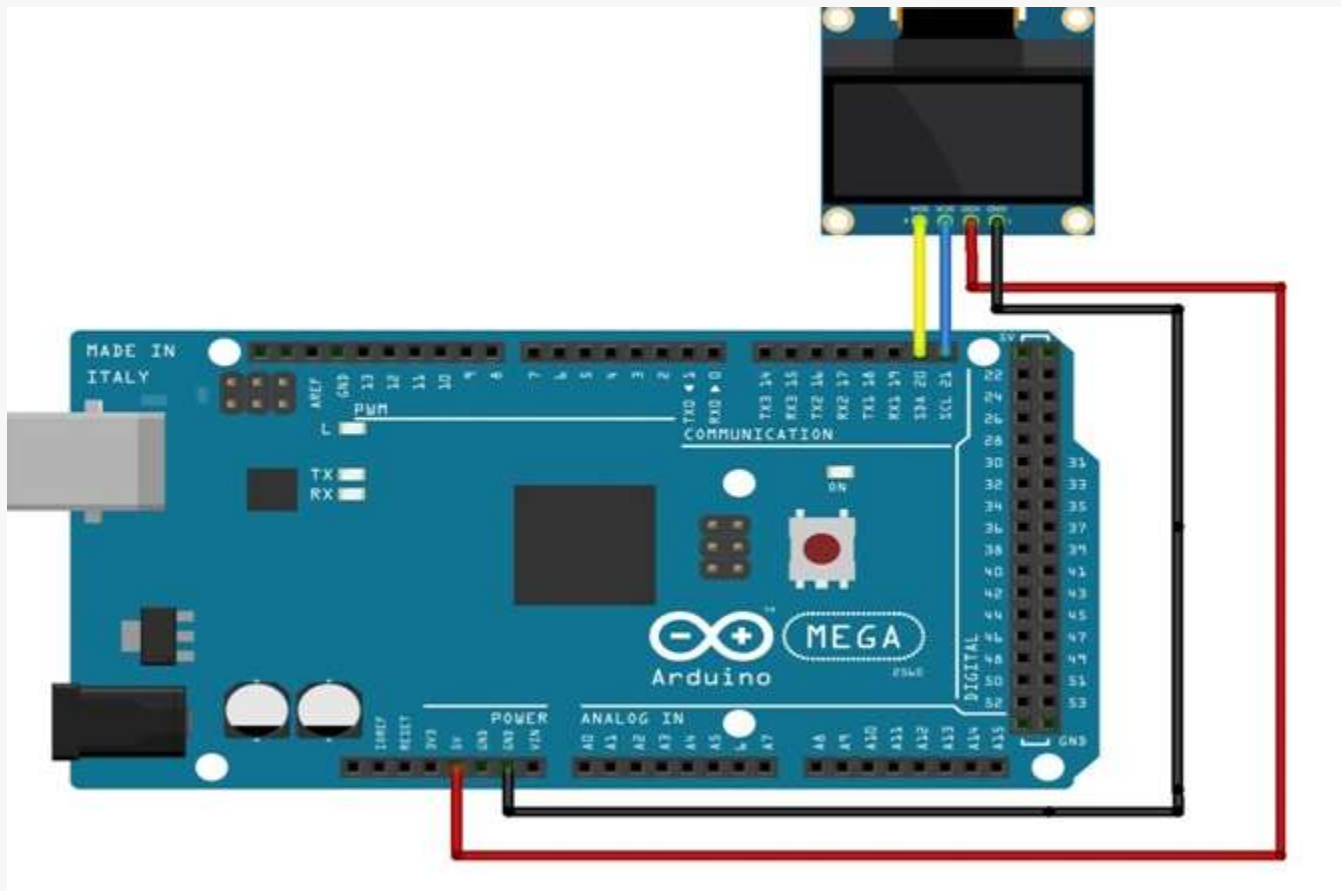
Pin 3: SCL - Serial Clock

Pin 4: SDA - Serial Data

Components Required

- Arduino UNO Board
- 0.96" I2C OLED Display
- Breadboard
- Connecting Wires

Connection Diagram



Connections

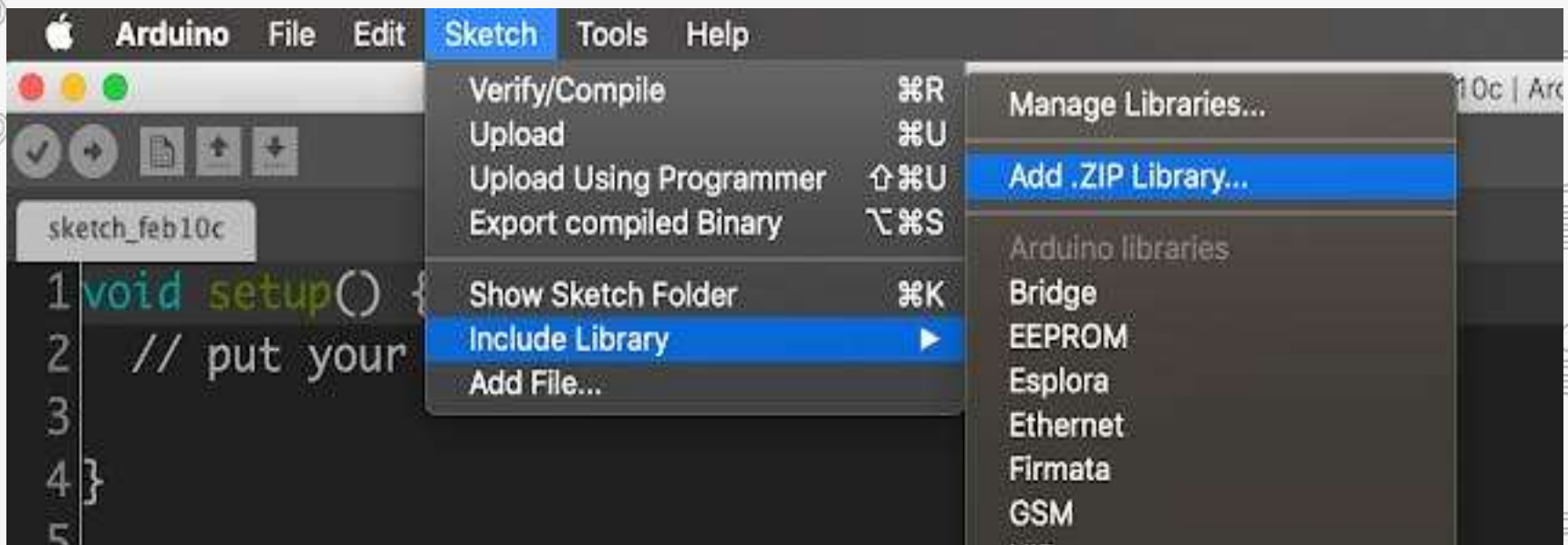
Connect the pins of OLED with the following pins of Arduino Mega , as shown below.

- 5V-----VCC
- GND-----GND
- SDA of arduino-----SDA
- SCL of arduino-----SCL

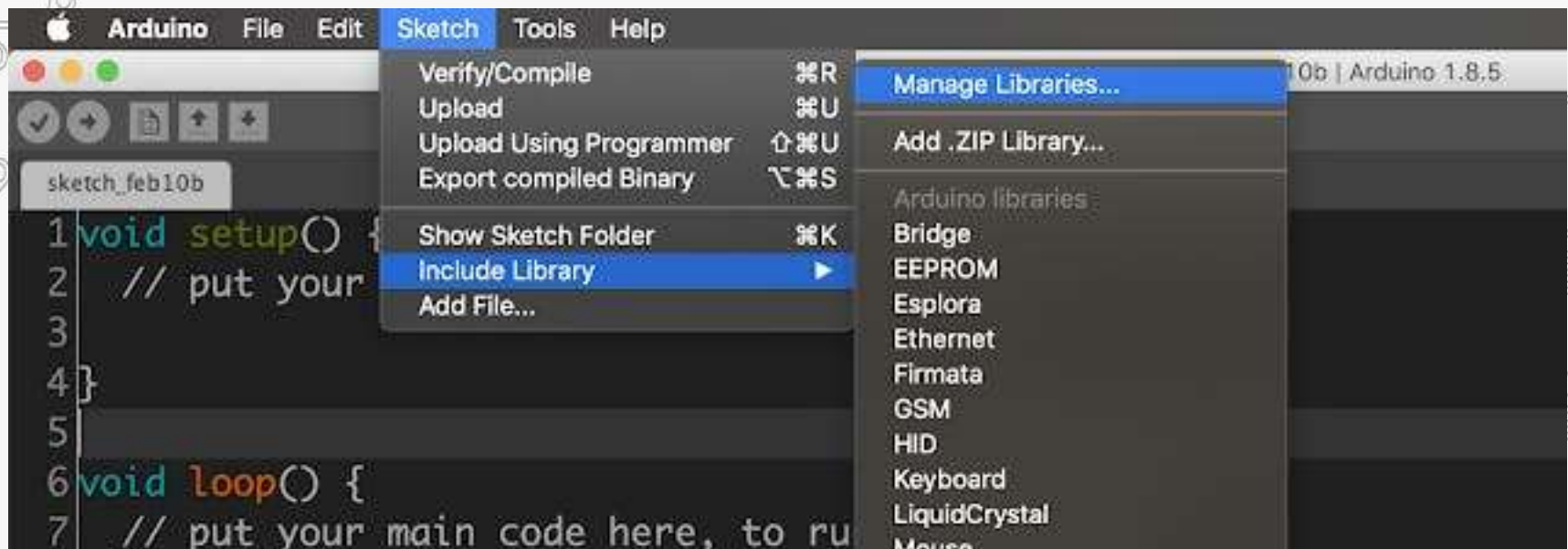
Install Required Libraries

- Adafruit_GFX.h <https://github.com/adafruit/Adafruit-GFX-Library>
- Adafruit_SSD1306.h https://www.github.com/adafruit/Adafruit_SSD1306
- Wire.h this library will be installed by default.

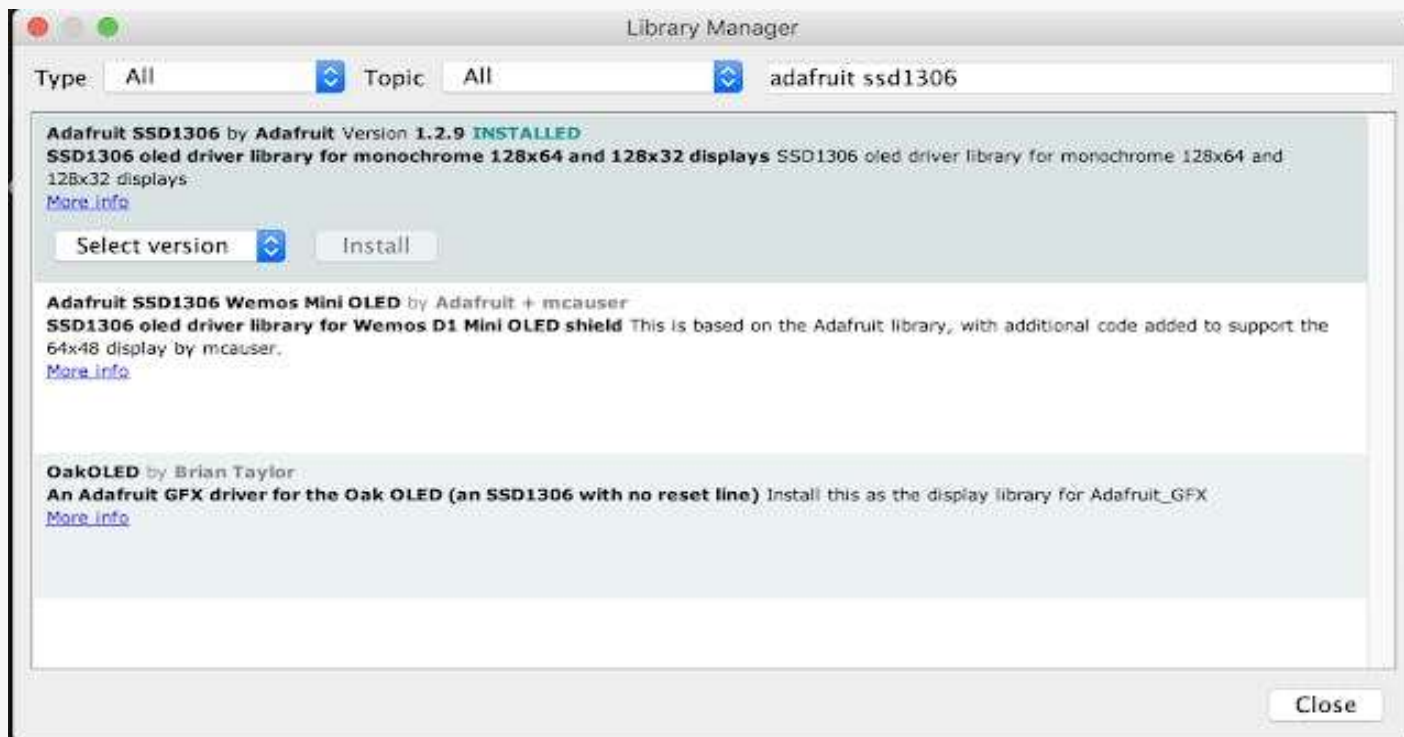
- Either you can download the libraries from github and add the ZIP file in Arduino IDE using add.zip library option.



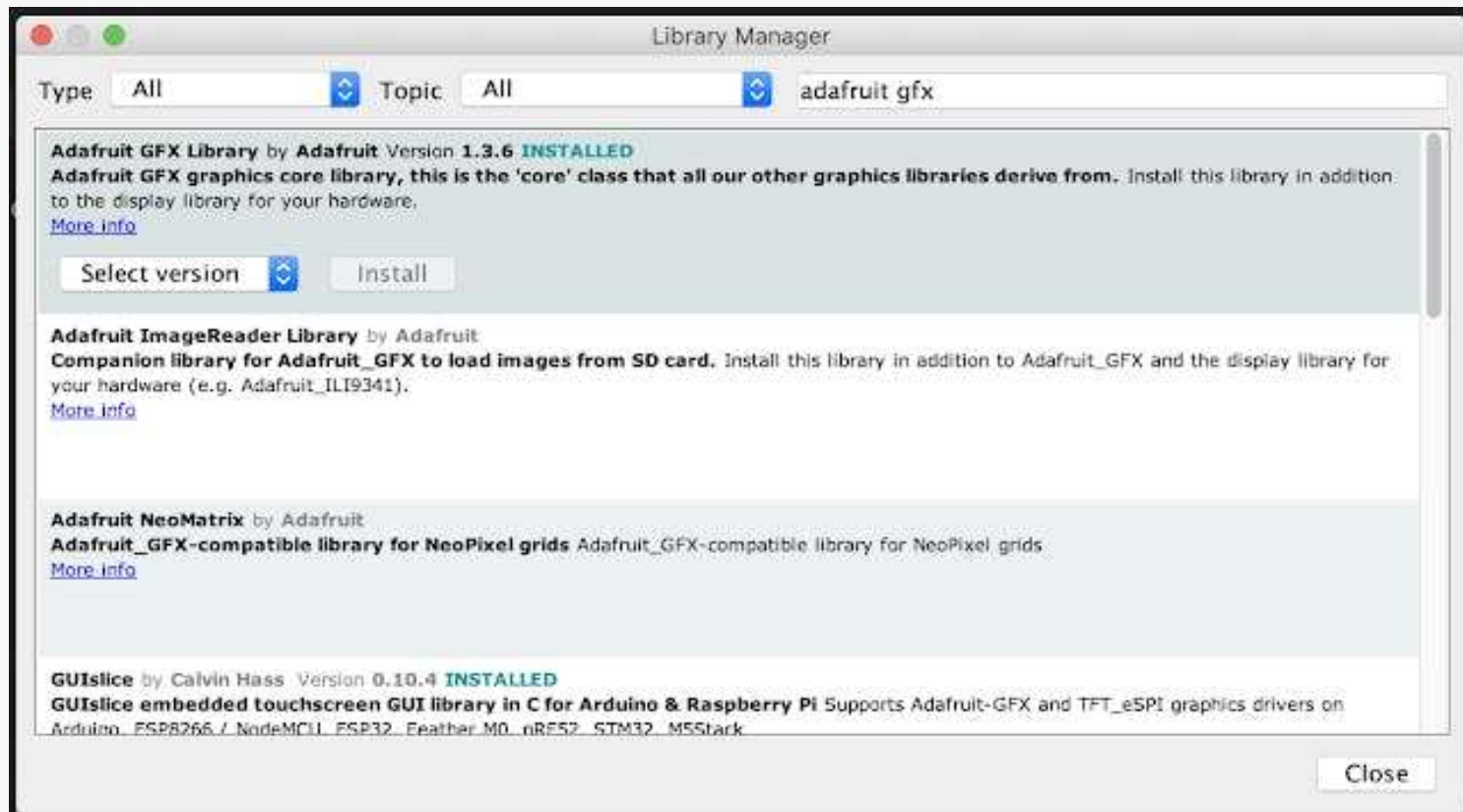
- Or you can install the libraries directly from Arduino IDE from Manage Libraries.
- Follow the below steps to install.



- Open manage library from sketch -> include library -> manage libraries.
- Then search for AdafruitSSD1306 and click on the install button.



- Then search for the Adafruit GFX and click the install button. Now we have successfully installed the required libraries for this project.



Adafruit Example Code

- Let's upload the adafruitSSD1306 library example program and test our setup. Open the example program from File -> Examples -> Adafruit SSD1306 -> ssd1306_128x32_i2c, because We are using OLED display with I2C interface with the screen size of 128x64.



Project Link : <https://youtu.be/7xWjEkj3oxs>