# DIRECTION TO INSTALL THE ESP32 BOARD ON ARDUINO IDE

Installing the esp32 board in Arduino IDE

Before starting this installation method, make sure you have the latest version of the Arduino IDE 2.2.1 installed in your computer.

If you don't, install it from https://www.arduino.cc/en/software , continue with this tutorial.

To install the ESP32 board in your Arduino IDE, follow these below instructions:

Step 1: In your Arduino IDE, go to File> Preferences
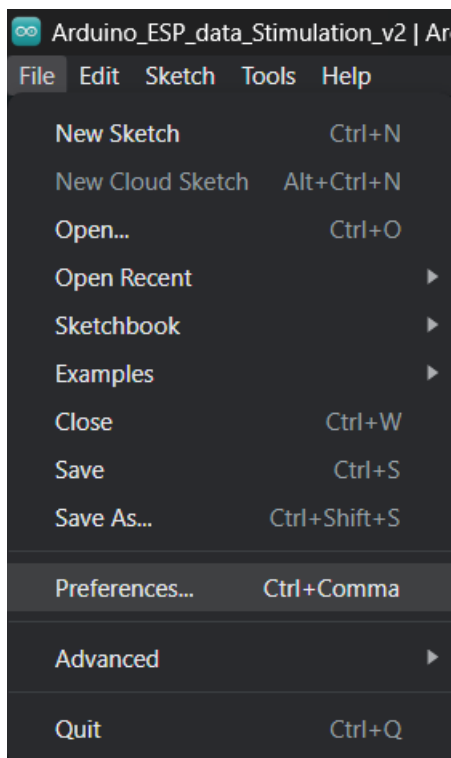
Step 2: Enter https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json into the "Additional Board Manager URLs" field as shown in the figure below. Then, click the "OK" button:
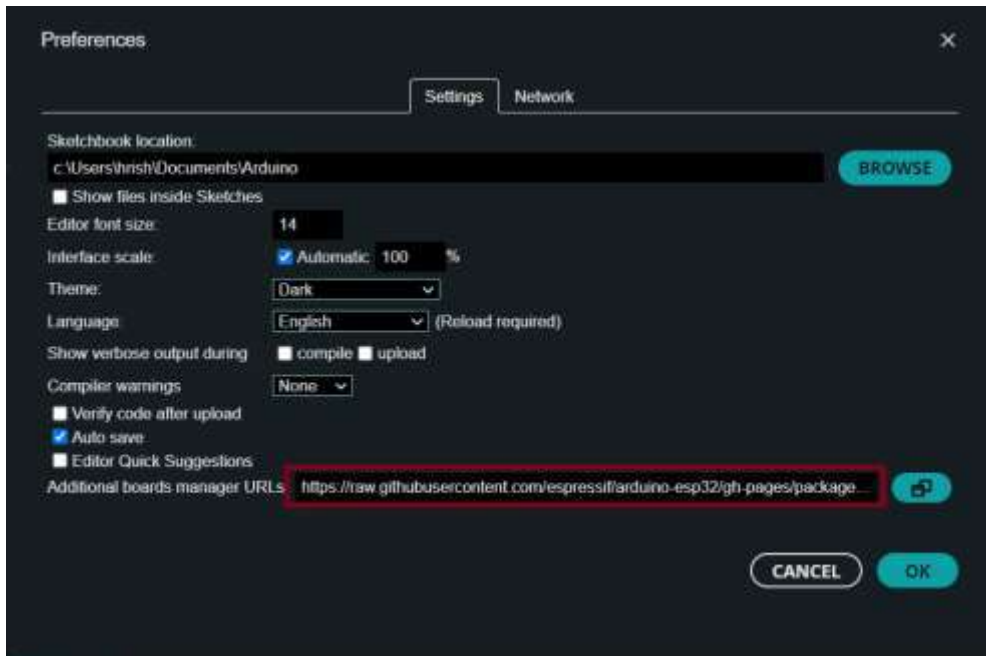
Step 3: open the board manager. Go to tools > Board > Board Manager. Search for ESP32 and press and install button for the esp32 by expressif System.
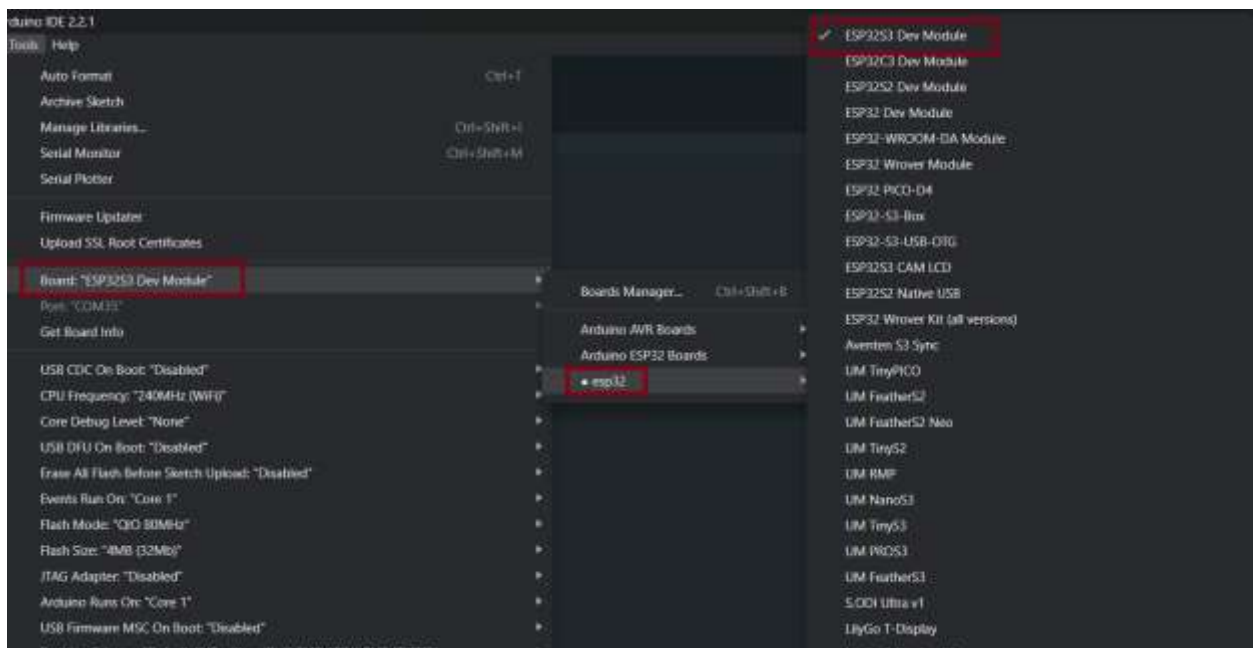
ESP32 will be installed after a few seconds.

TESTING THE INSTALLATION

Step 1: Plug the cloud PLC module in your computer. With your Arduino IDE open, follow these steps:'

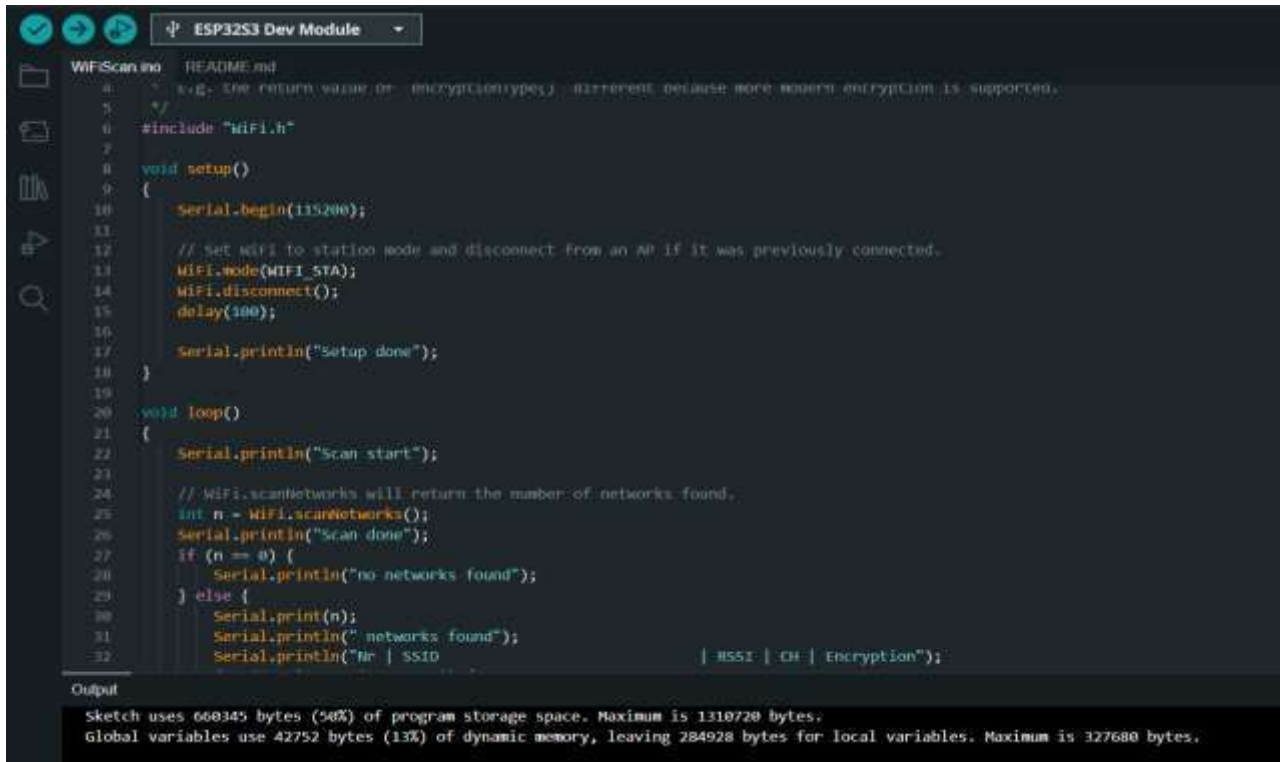**Step 2:** Select your Board in Tools > Board menu (it's the ESP32 Dev Module)

Select the Port (if you don't see the COM Port in your Arduino IDE, you need to install

the FTDI Drivers: https://ftdichip.com/drivers/d2xx-drivers/ For Installation Guide, CLICK HERE

Step 3: click the following example under the FILE > Example > WiFi (ESP 32) > WiFi Scan.
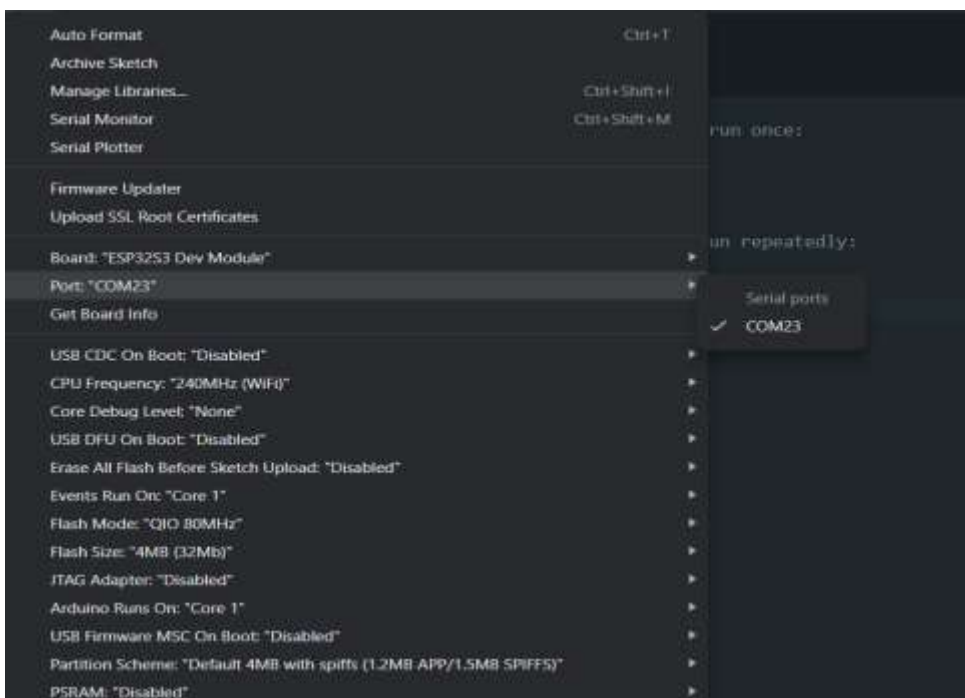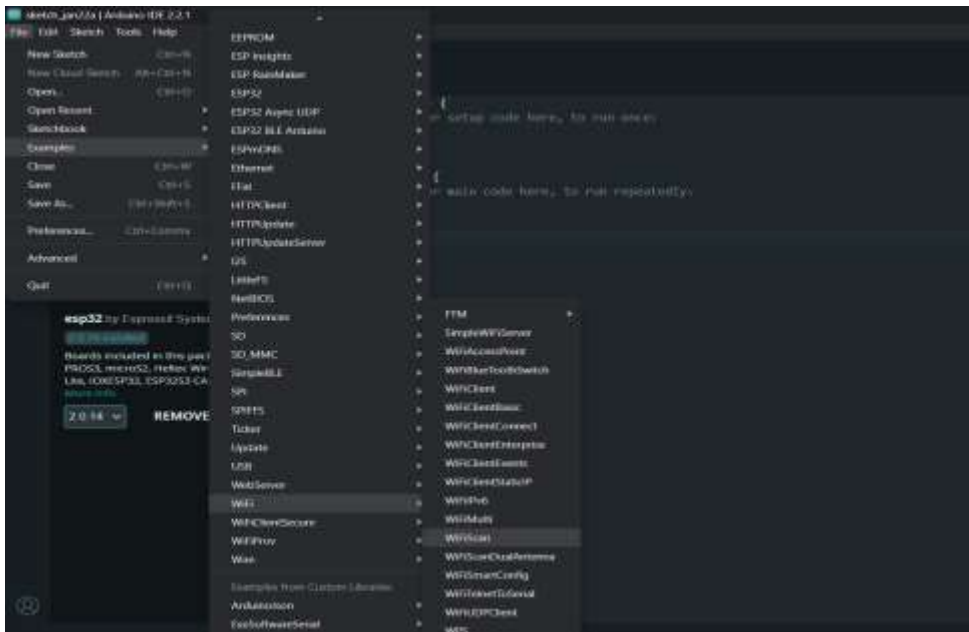
Step 4: A new sketch opens in your Arduino IDE:

Step 5: Press the Upload button in the Arduino IDE. Wait a few seconds while the code compiles and uploads to your board.

If everything is went as expected, then you should see a "Done Uploading" message.

Step 6: Open the Arduino IDE Serial Monitor at a baud rate of 115200.

Step 7: Press the ESP 32 on-board Reset button and you should see the networks available near your ESP 32

Output on the serial Monitor

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Output    Serial Monitor  ✕

Message (Enter to send message to 'ESP32 Dev Module' on 'COM13')

���Scan done
3 networks found
Nr | SSID                          | RSSI | CH | Encryption
 1 | TP-Link_6318                  |  -68 |  9 | WPA2
 2 | AVAYA_IT&SAP                  |  -82 |  4 | WPA2
 3 | Sahyadri_Net                  |  -92 | 11 | open

Scan start
Scan done
3 networks found
Nr | SSID                          | RSSI | CH | Encryption
 1 | AVAYA_IT&SAP                  |  -79 |  4 | WPA2
 2 | TP-Link_6318                  |  -79 |  9 | WPA2
 3 | Redmi 10A                     |  -88 |  1 | WPA2
```

Research
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LIBRARY INSTALLATION

**Step 1:** To install the new library into the Arduino IDE. Go to Sketch > include Library > Manage Libraries. And, also you can find libraries available in right side control panel.
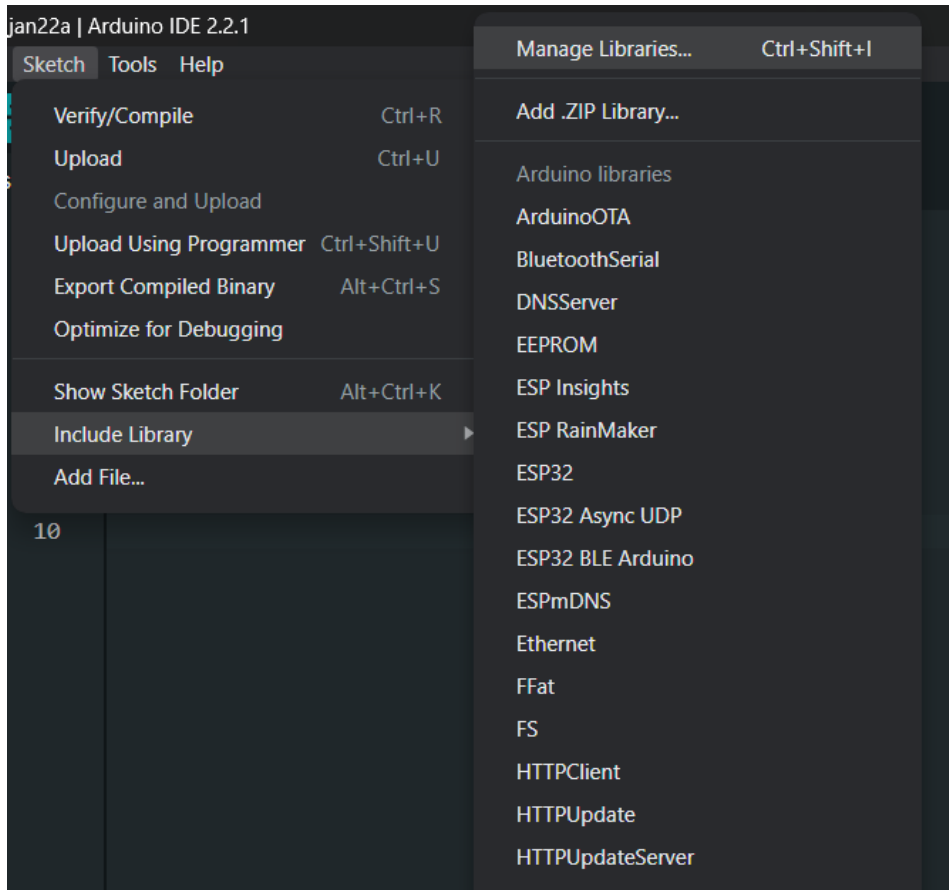

Step 2: Then the Library Manager will open and you will find a list of libraries that are already installed or ready for installation. In this example we will install the RTC library (i.e, rtclib).Enter the library name to find it, click on it, then select the version of the library you want to install. Sometimes only one version of the library is available. Then click on install.

Research Design Lab

Cloud PLC v2.0
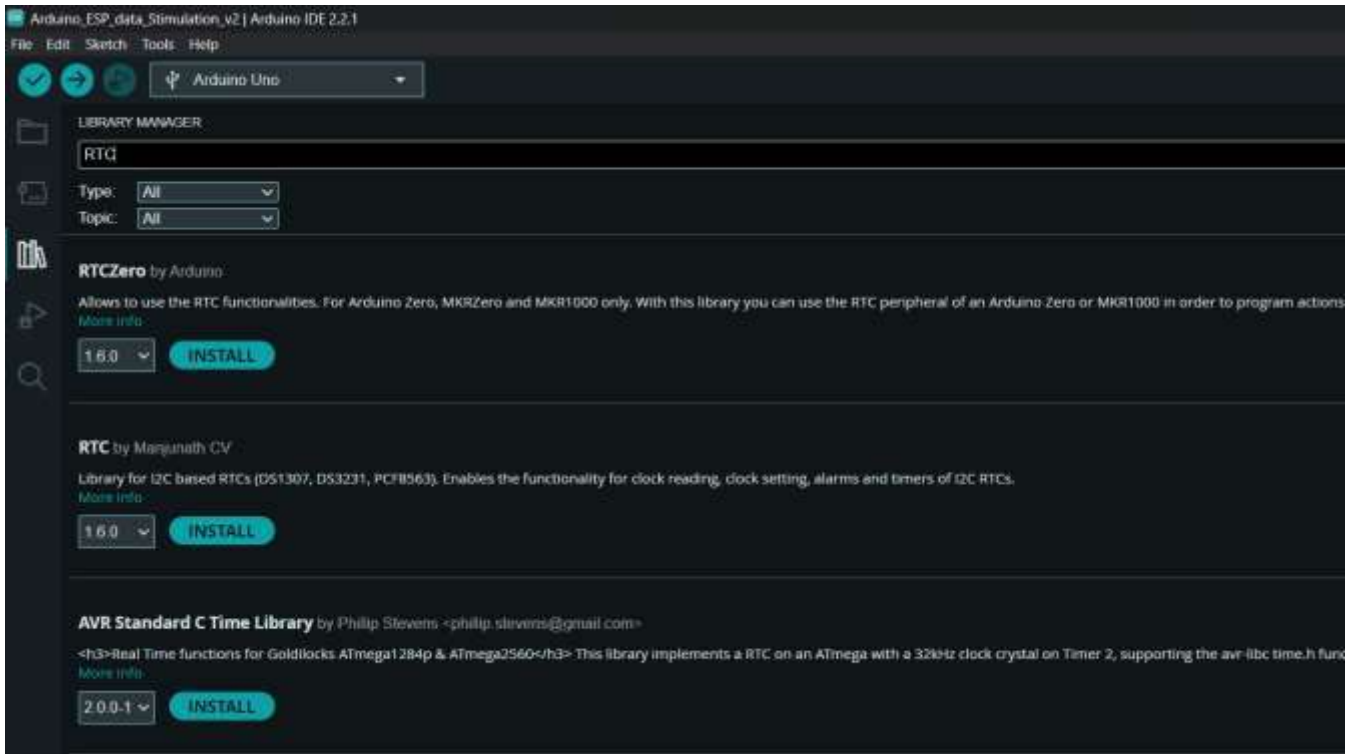
Step 3: Wait for the IDE to install the new library. Downloading may take time depending on your connection speed. Once it has finished, an Installed tag should appear next to the RTC library. Then click on close.

**Another method for adding and importing a zip. Library**

Step 1: Go to Google, Search for (ie, rtc.lib). the website will be shown on the screen, you want to install, click on download Zip.
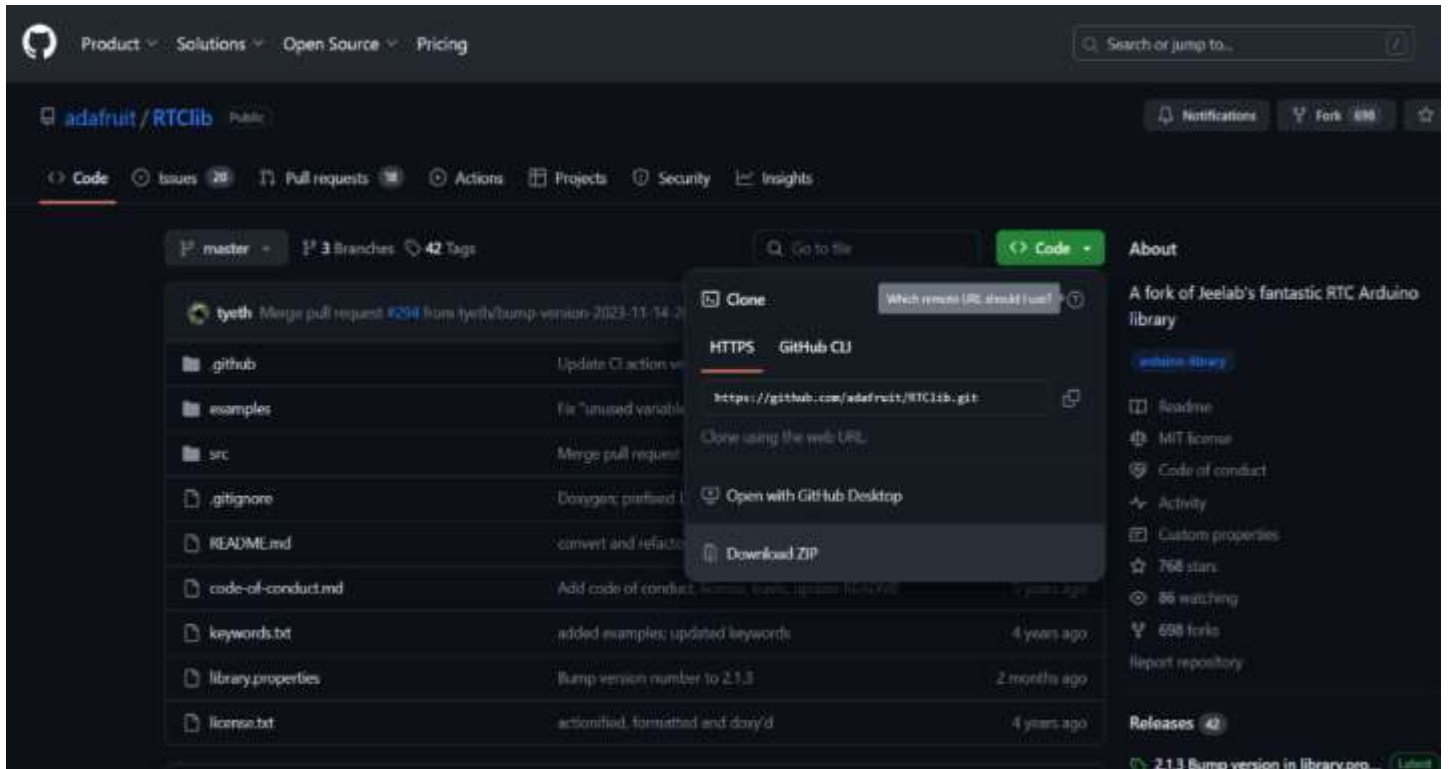
Step 2: Go to Sketch > Include Library > add .ZIP Library.
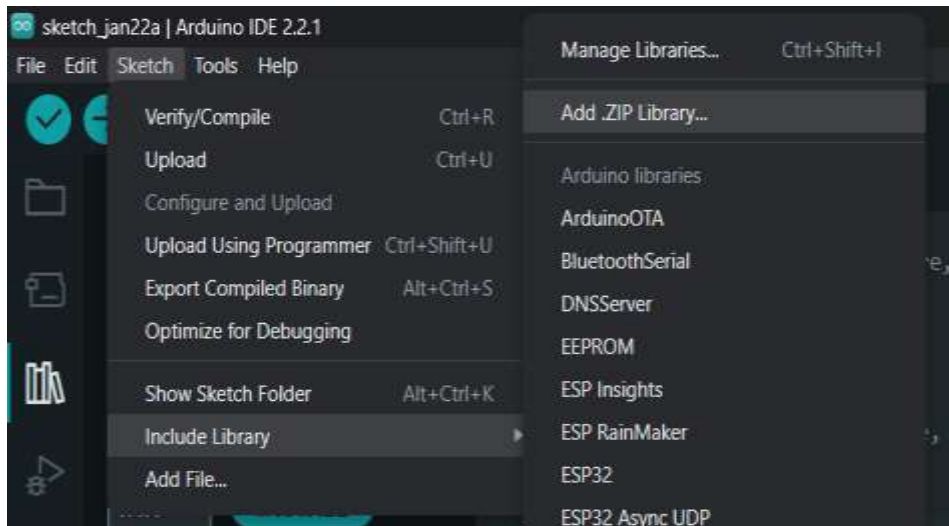
Step 3: after that click on Add.ZIP library, then it will be goes to file manager, you can go and select and open your library, the library installation had successfully installed.
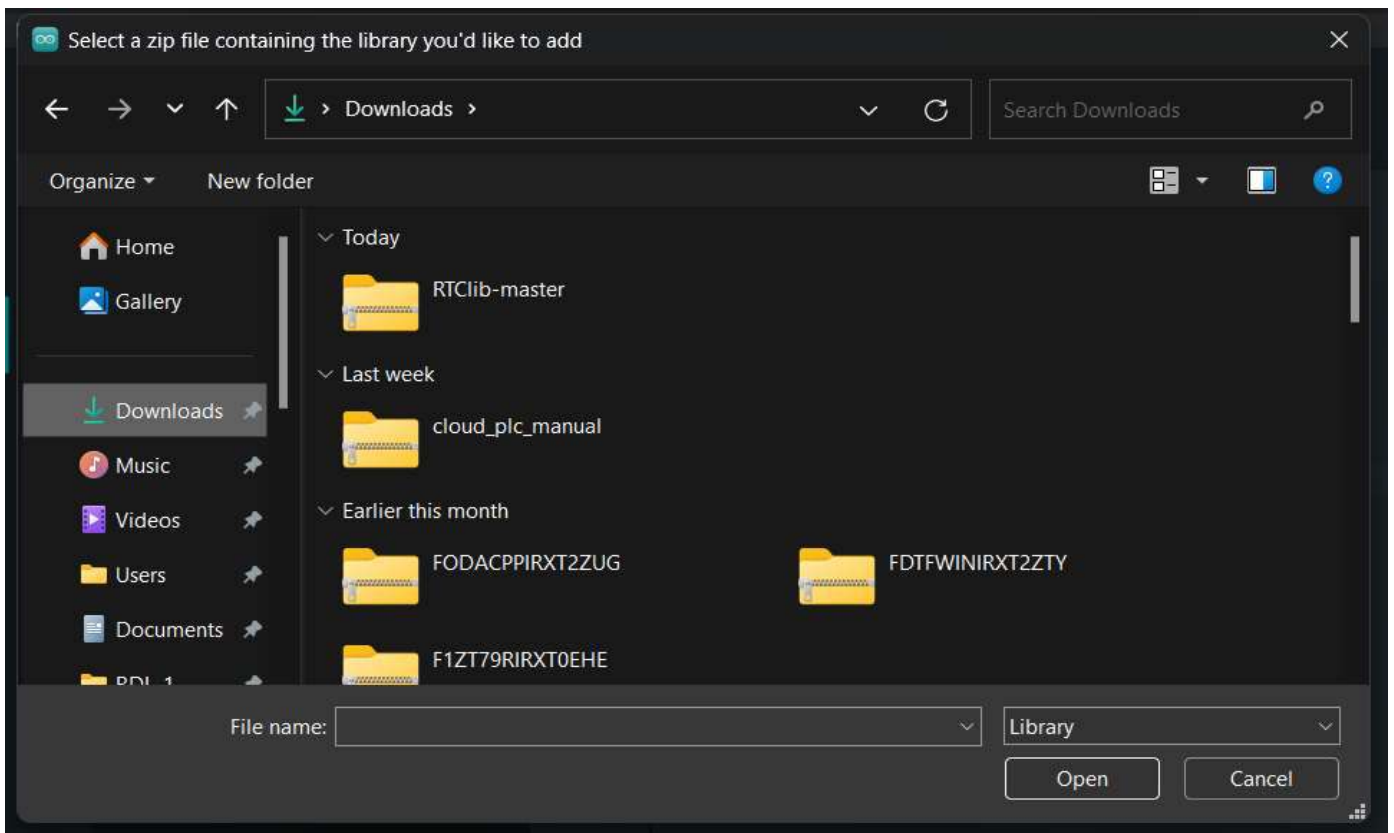
Connect Cloud PLC device into your computer using USB cable. Ensure that the device is powered on.

Now you're ready to begin your work.

NOTE: Switch off the supply voltage of this product as well as of attached

devices before connecting or disconnecting them.

Always use insulated tools while working.

Do not touch any components of the board in open hand during

power ON