

Using third-party libraries

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Install third-party libraries

Add .zip library

Software Management Library

Adafruit NeoPixel

Adafruit PWM Servo Driver Library

IRremote

TM1650

Import the library directly

Library location

Use third-party libraries

Notes

Demonstrate the methods of installing and importing libraries in three cases.

Install third-party libraries

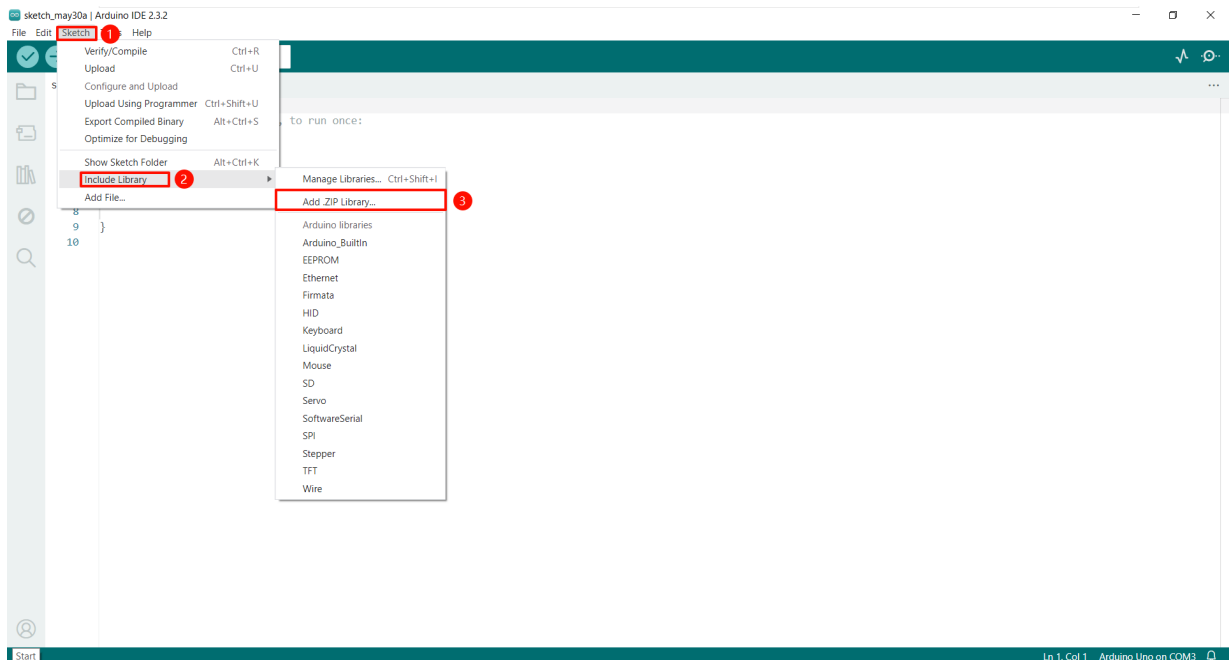
The entire car case requires libraries such as `Adafruit_NeoPixel`, `Adafruit_PWM_Servo_Driver_Library`, `TM1650`, and `IRremote`.

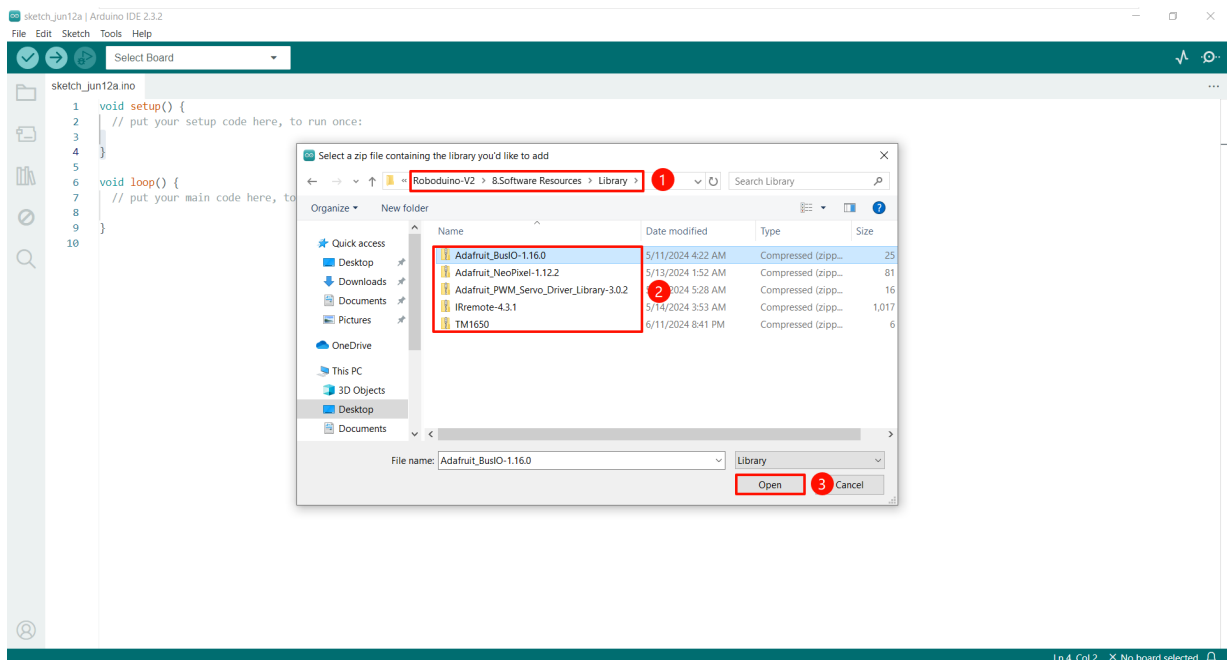
Install the software library yourself through the software manager, and the version must be consistent!

Add .zip library

Users need to know the location of the software library compressed package.

The third-party library compressed package is located in [Software Resources: Library]

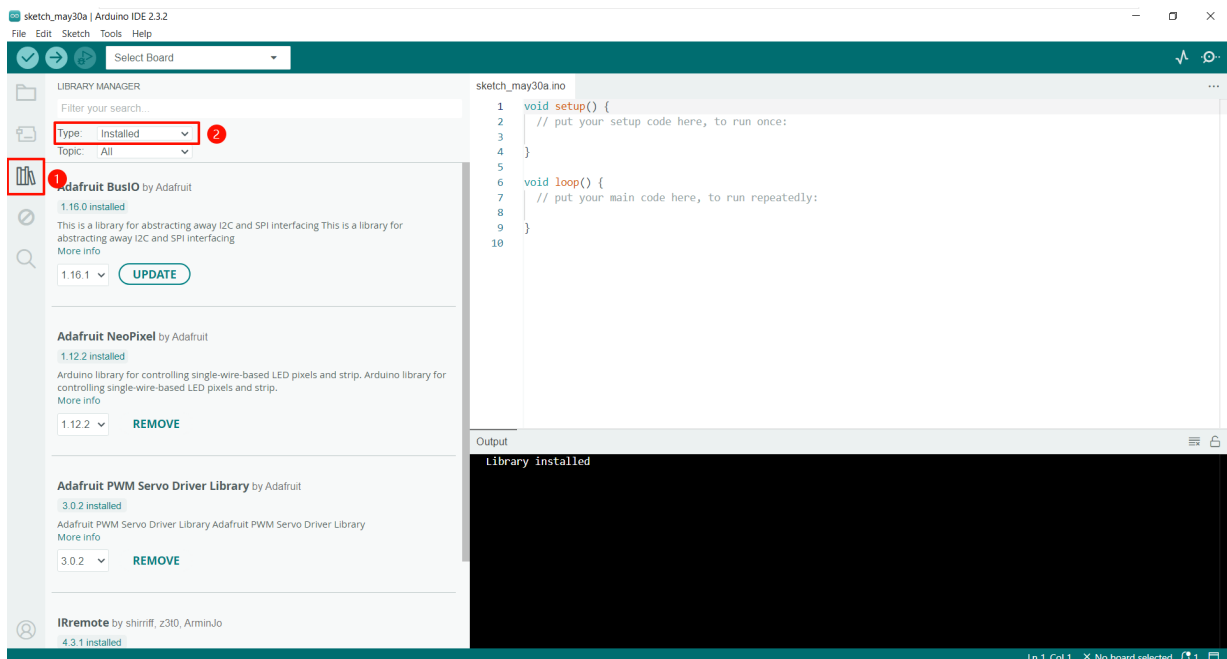




You need to add the compressed package corresponding to each library in the picture, and the method is the same.

After adding the library successfully, a success prompt will appear in the lower right corner of the Arduino IDE!

- View the installed libraries



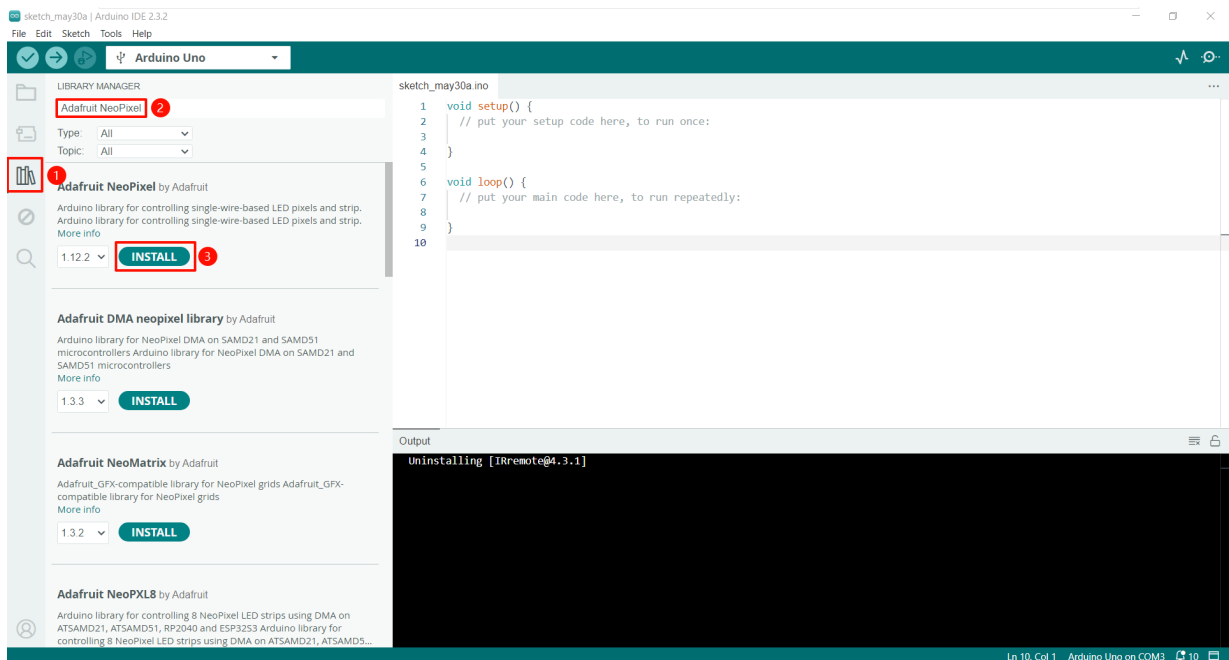
Software Management Library

Use the library manager that comes with the software to install. This method requires confirmation that the installed version is consistent with the one we provide. Please do not upgrade at will to avoid program errors.

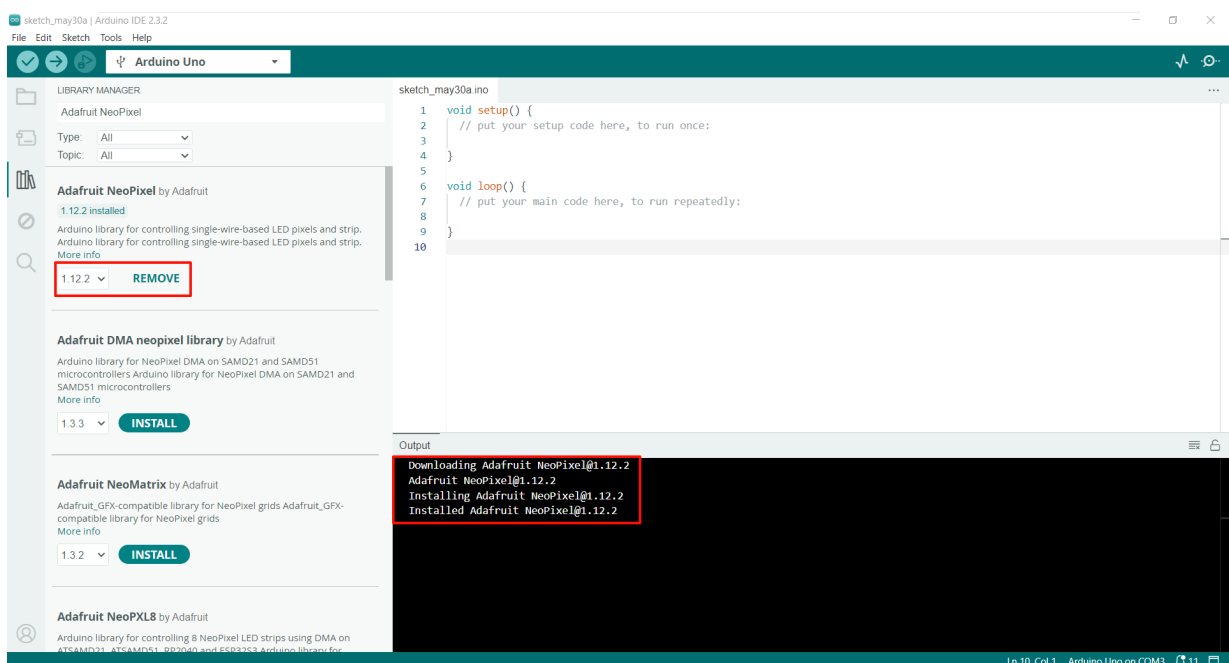
Adafruit NeoPixel

Search `Adafruit NeoPixel` in the management library and click Install.

`Adafruit_NeoPixel` is a library for controlling RGB (red, green, and blue) LED strips.



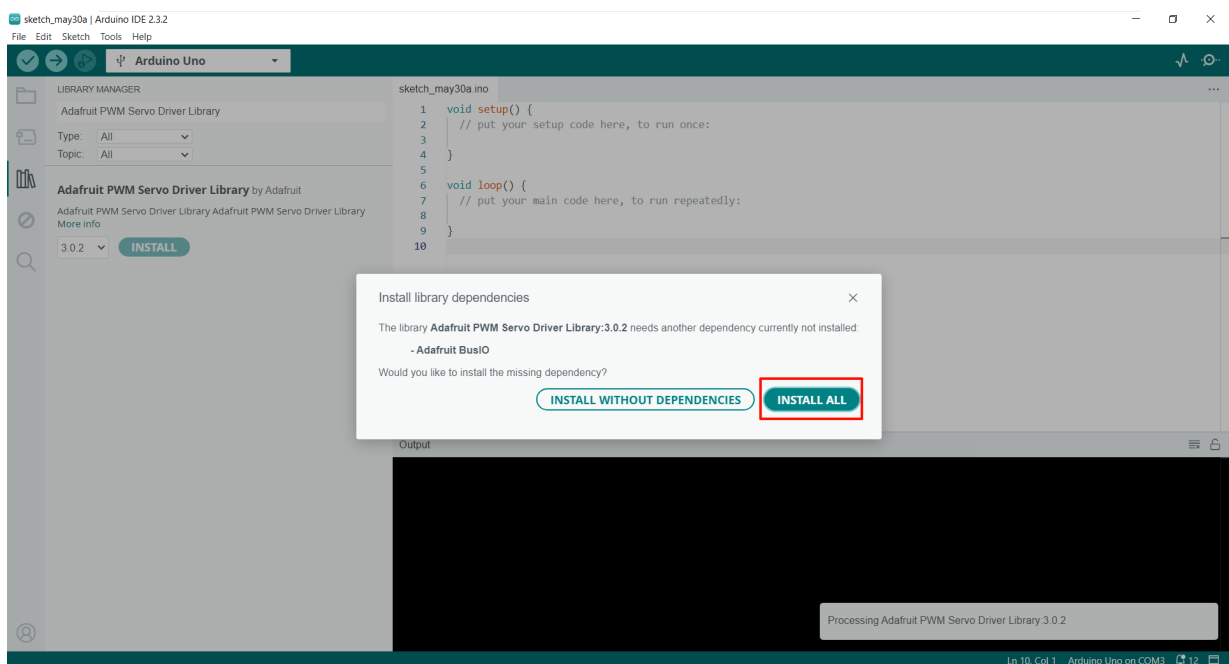
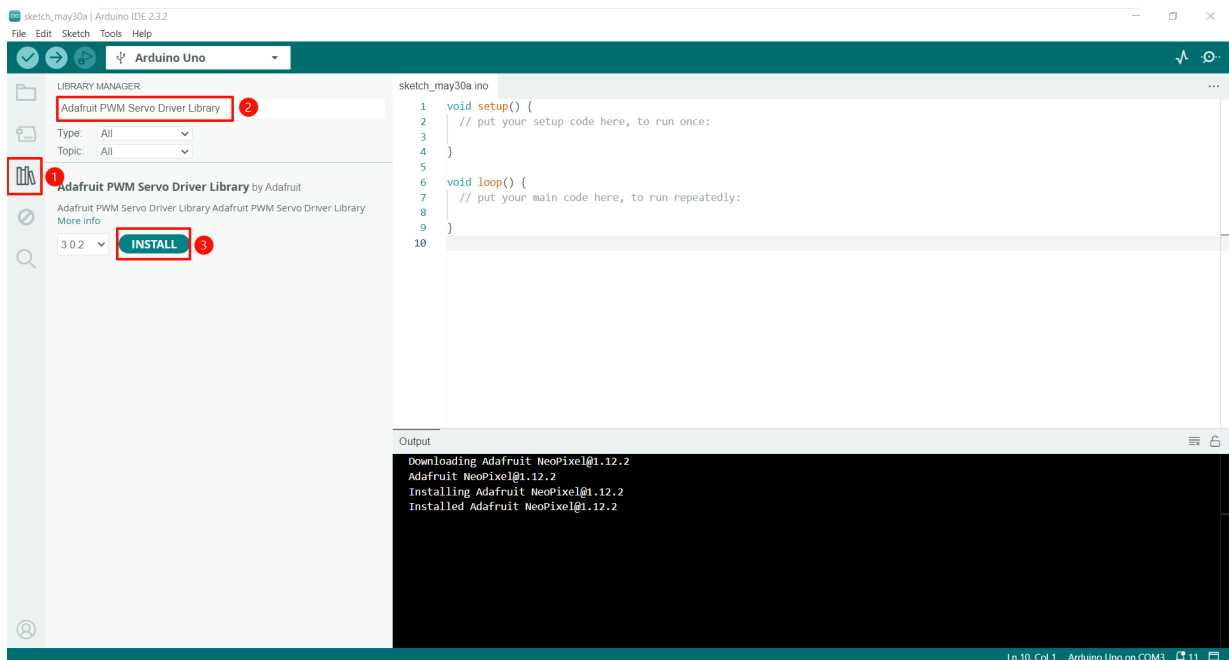
Installation successful:



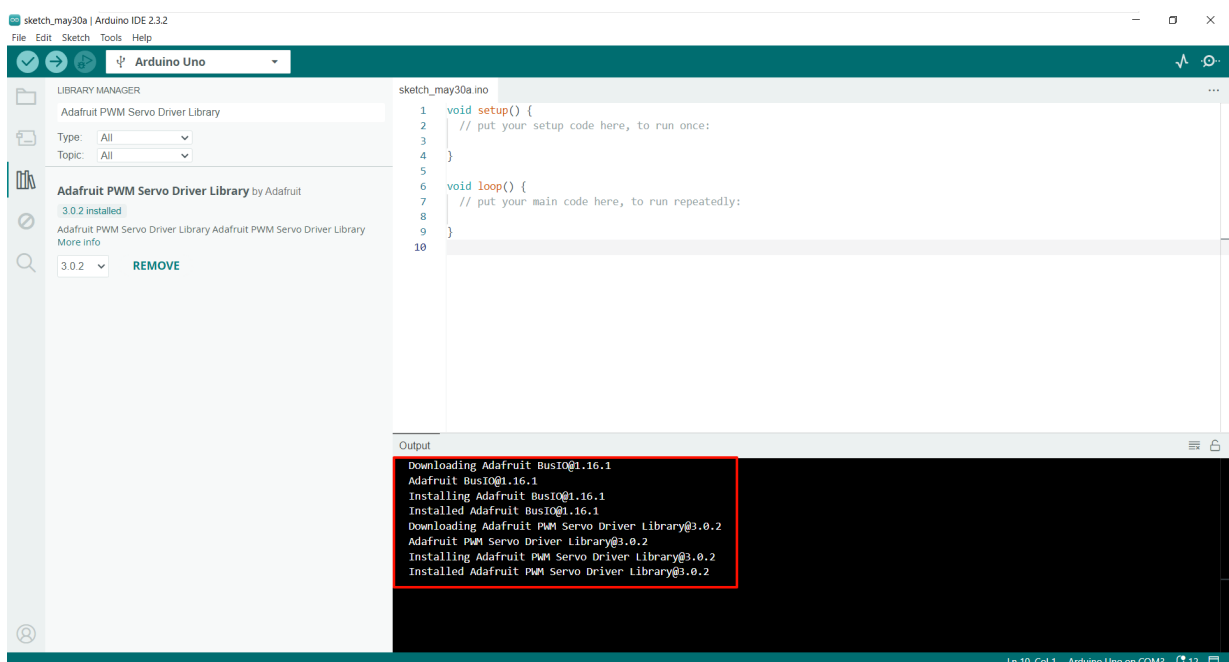
Adafruit PWM Servo Driver Library

Search for `Adafruit PWM Servo Driver Library` in the library manager and click Install.

Adafruit PWM Servo Driver Library is a method for controlling PWM (pulse width modulation) servos and other motors, which changes the speed of the motor by controlling the pulse width of the voltage.



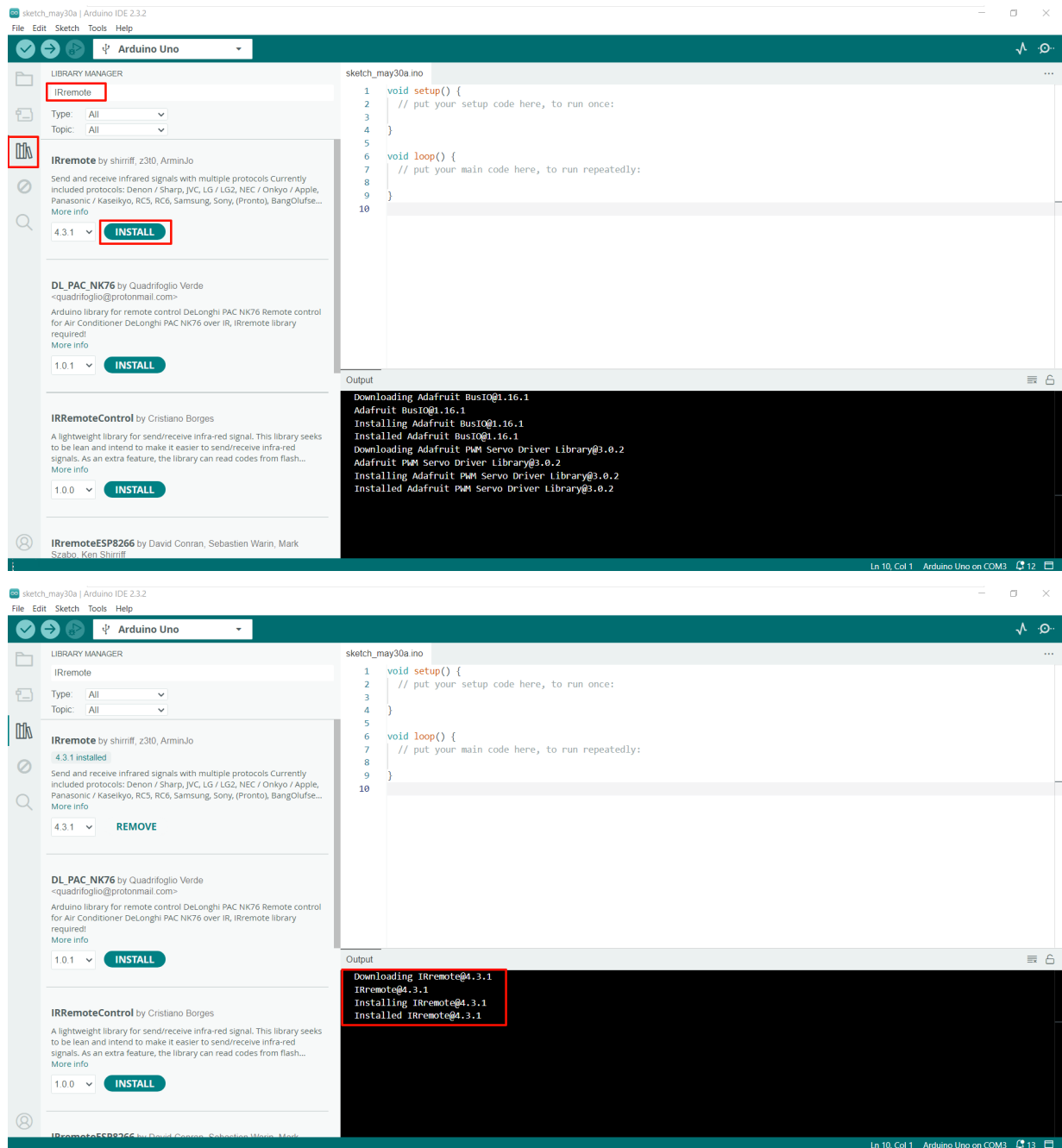
Installation successful:



IRremote

Search **IRremote** in the management library and click Install.

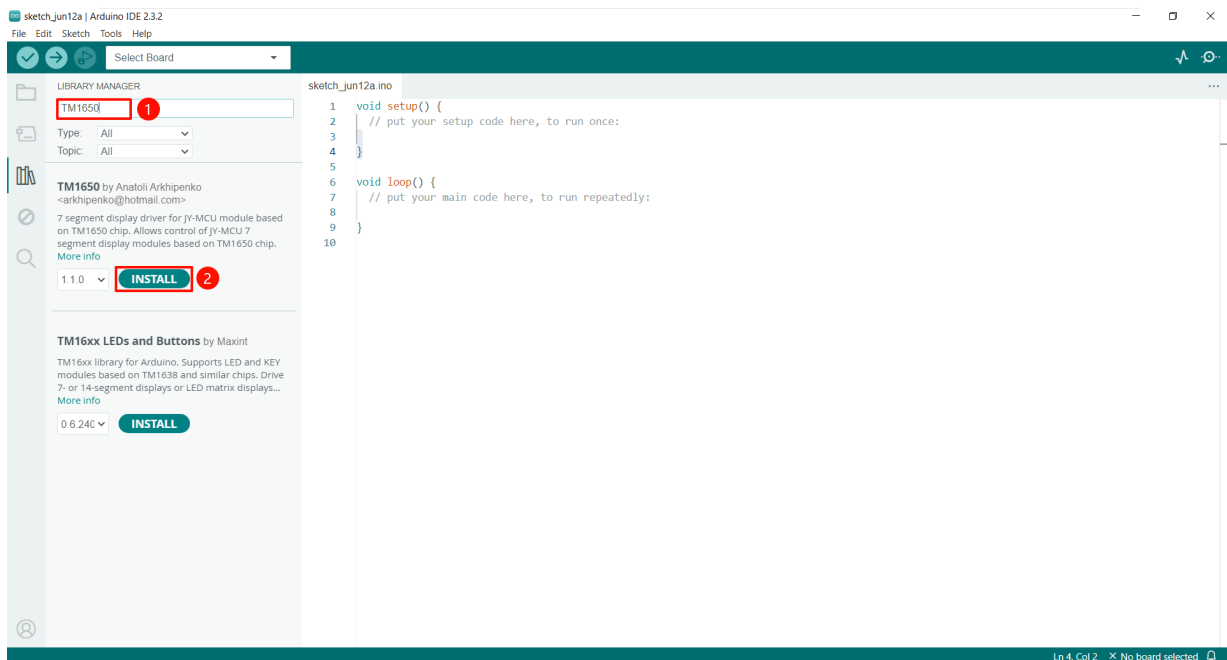
The IRremote library is used to read the signal data sent by the infrared remote control.



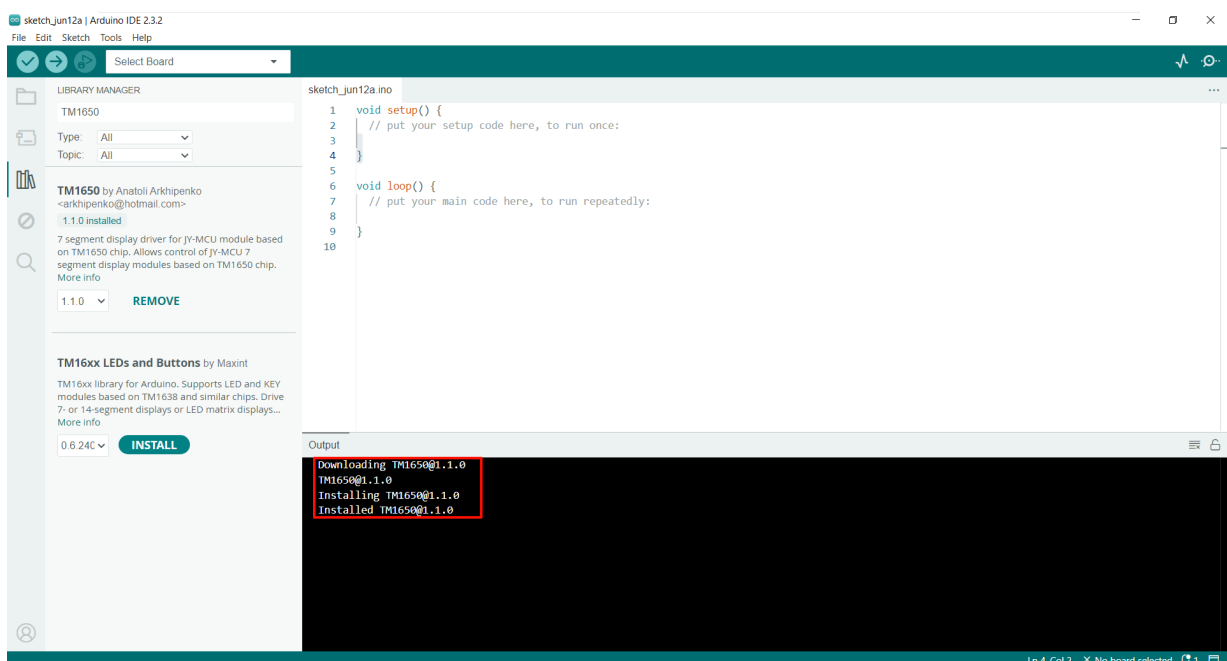
TM1650

Search **TM1650** in the management library and click Install.

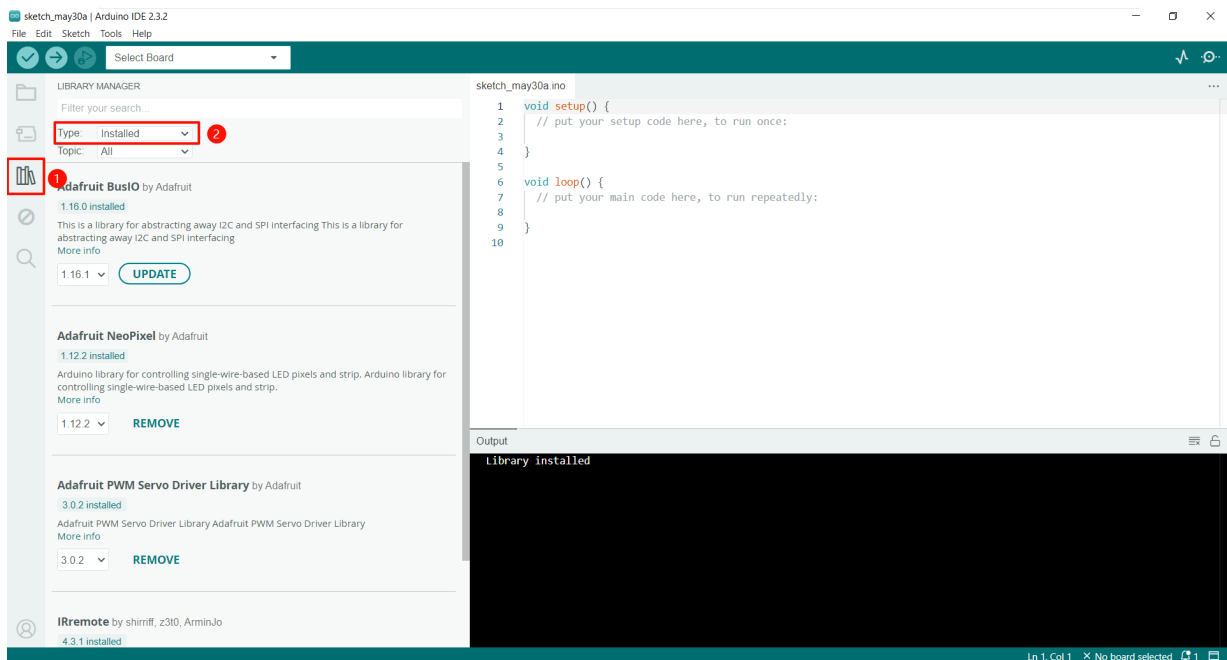
The TM1650 library is a software library used to communicate with the TM1650 chip.



Installation successful:



- View installed libraries

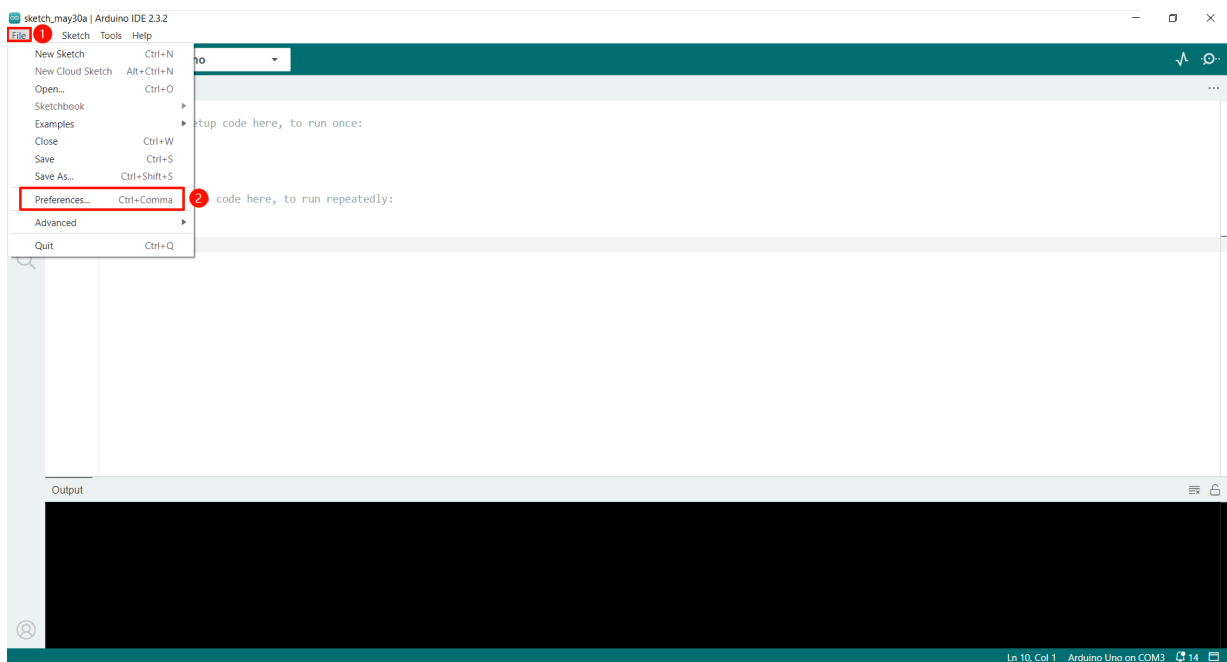


Import the library directly

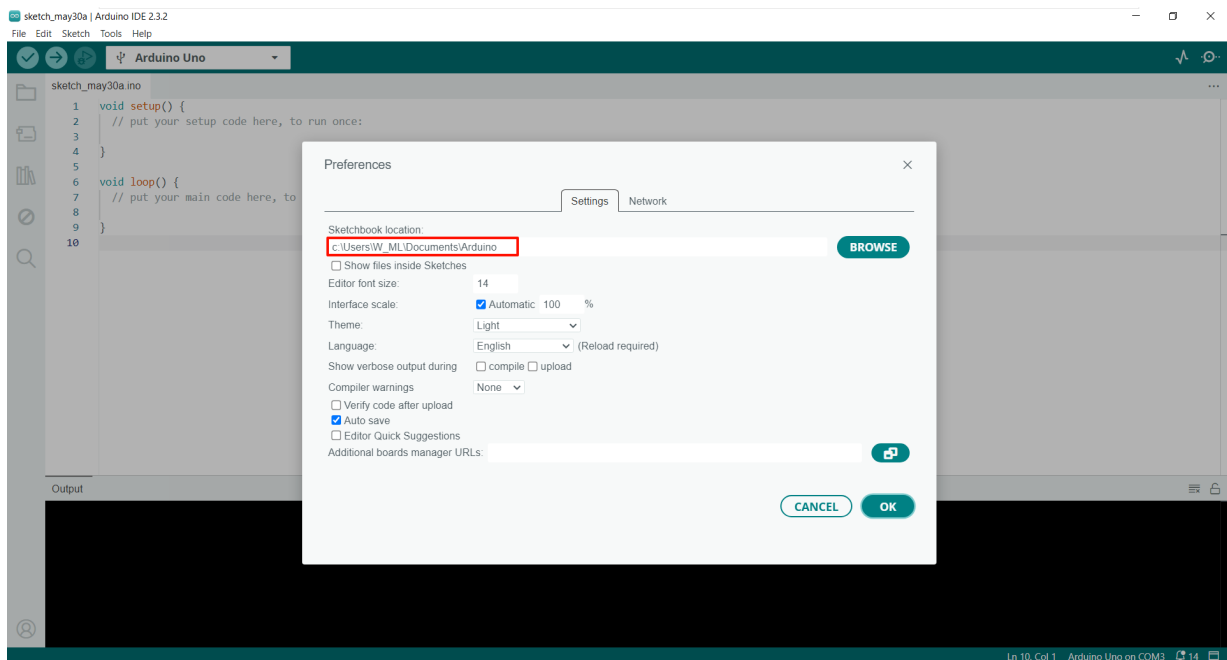
Find the folder where the library is located and unzip the software library to the `libraries` directory.

Library location

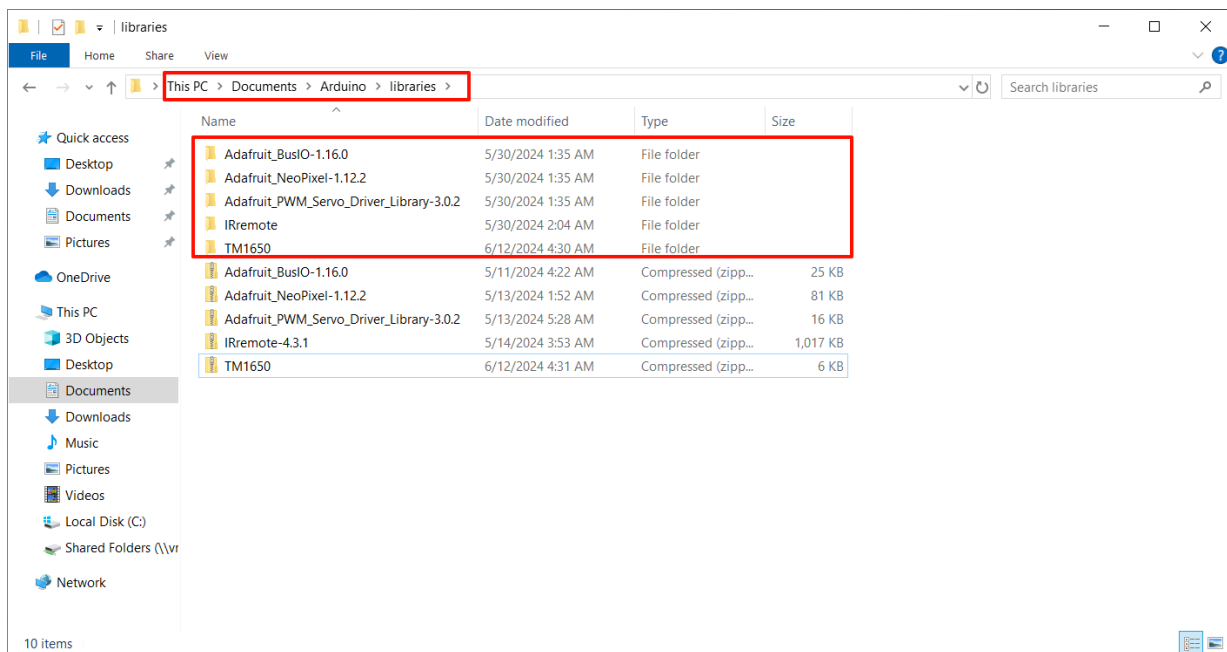
Click `Preference` in the `File` directory



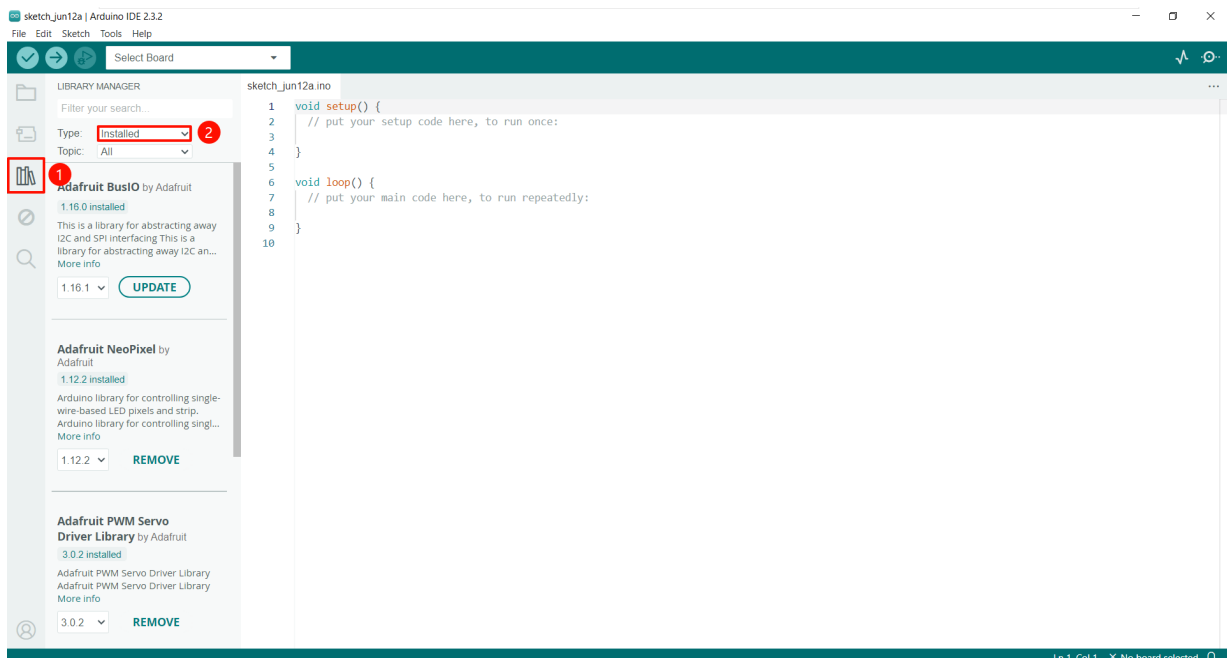
The path selected here is the library location:



Unzip all the software library packages we provide in this folder:



We need to restart the Arduino IDE to display the directly imported library.



Use third-party libraries

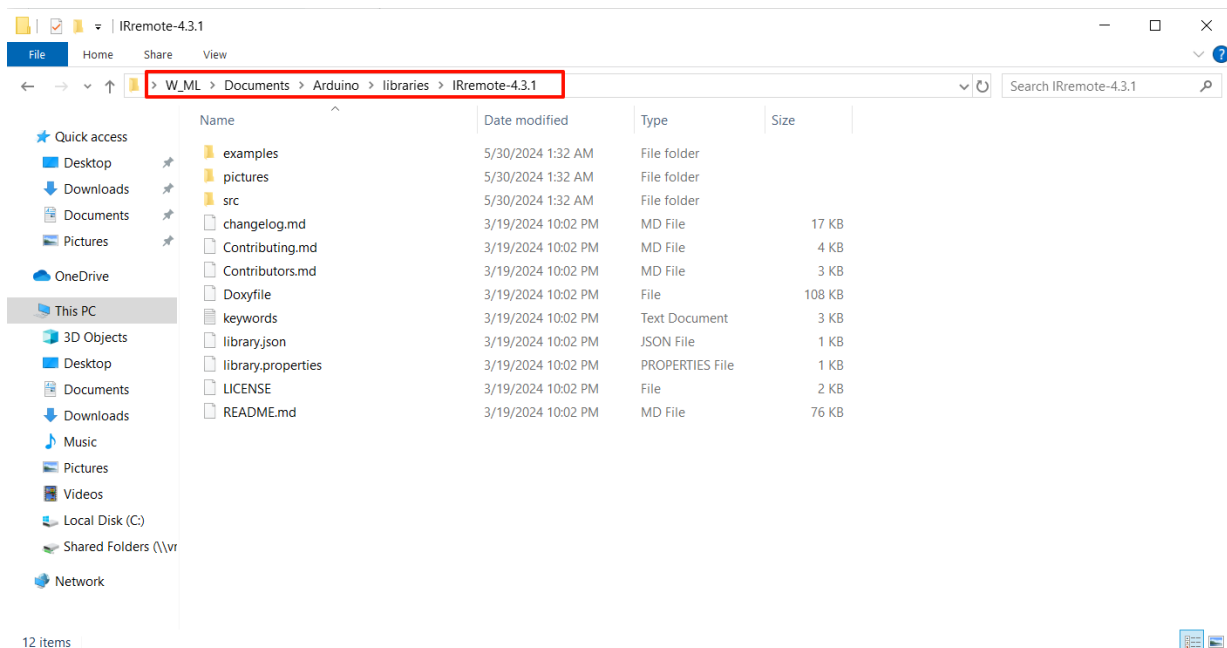
Include the header file corresponding to the library and you can use it.

```
#include <TM1650.h>
#include <IRremote.hpp>
#include <Adafruit_NeoPixel.h>
#include <Adafruit_PWMServoDriver.h>
```

Notes

- If you are not sure about the new version update content, please do not update the library version
- Possible reasons for failure to import the library directly

Normal decompression method: the contents of the compressed package need to be in the next level directory



Wrong decompression method: the contents of the compressed package are in the next level directory, so it cannot be detected (there is an extra layer of IRremote-4.3.1 folder in the picture)

IRemote-4.3.1

FileHomeShareView

> This PC > Documents > Arduino > libraries > IRemote-4.3.1 > IRemote-4.3.1 >

Search IRemote-4.3.1

Quick access

Desktop

Downloads

Documents

Pictures

OneDrive

This PC

3D Objects

Desktop

Documents

Downloads

Music

Pictures

Videos

Local Disk (C:)

Shared Folders (\\vr

Network

Name	Date modified	Type	Size
examples	5/30/2024 1:39 AM	File folder	
pictures	5/30/2024 1:39 AM	File folder	
src	5/30/2024 1:39 AM	File folder	
changelog.md	3/19/2024 10:02 PM	MD File	17 KB
Contributing.md	3/19/2024 10:02 PM	MD File	4 KB
Contributors.md	3/19/2024 10:02 PM	MD File	3 KB
Doxyfile	3/19/2024 10:02 PM	File	108 KB
keywords	3/19/2024 10:02 PM	Text Document	3 KB
library.json	3/19/2024 10:02 PM	JSON File	1 KB
library.properties	3/19/2024 10:02 PM	PROPERTIES File	1 KB
LICENSE	3/19/2024 10:02 PM	File	2 KB
README.md	3/19/2024 10:02 PM	MD File	76 KB

12 items