

## Read before Start

Read this document before you start. It will help you to use this product smoothly.  
You can ignore the file readme.md.

### Getting Started

In this tutorial, we provide the I2C LCD1602 LCD module and I2C LCD2004 LCD module specific use of tutorial materials, provides the different processors for the development of LCD module tutorial materials, There are five development platforms including Arduino, ESP32, ESP866, Raspberry PI Pico and Raspberry PI.

After downloading the ZIP file we provided and unzipping it, you will get a folder containing several files and folders, Five of them are named Freenove\_LCD\_Module\_for\_Arduino, Freenove\_LCD\_Module\_for\_ESP32, Freenove\_LCD\_Module\_for\_ESP8266, Freenove\_LCD\_Module\_for\_Raspberry\_Pi\_Pico and Freenove\_LCD\_Module\_for\_Raspberry\_Pi. They are LCD module programming based on five different processor development schemes, you can choose to learn according to their own actual situation. In the next level of directory we provide C and Python folders, which are based on development methods in two different languages.

The C folder holds C/ C++ programming materials based on Arduino IDE, and the Python folder holds MicroPython programming materials based on Thonny.

**In addition, there is no tutorial material for Python in the Auduino-based development board. In raspberry Pi-based development, the C and Python tutorials have been merged to make your learning easier.**

If you choose C folder

- C\_Tutorial.pdf  
It covers basic operations such as uploading sketches to the processor, as well as C programming and electronics.

If you are using Python folder

- Python\_Tutorial.pdf  
It covers basic operations such as running Python code online or offline on the processor, as well as MicroPython programming and electronics.

[support@freenove.com](mailto:support@freenove.com)

## Get Support

Meet problems? Don't panic!

Whether there are package damage, quality problems, or questions encountered in use, just send an email to:

[support@freenove.com](mailto:support@freenove.com)

We will reply to you within one working day and provide satisfactory solutions.

## Frequently Asked Problems

Here are some common problems and their solutions.

If the following solutions cannot solve the problem encountered, please feel free to contact our support.

### Processor cannot be recognized by computer or Arduino IDE

Check to see if you have a driver installed, and if so, try re-installing the latest version of the Arduino IDE. During the installation, agree to install the driver. If still unrecognizable, try using another USB cable if you have one. If it still does not work, please contact our support.

### Fail to upload sketch

Check if the correct board and port are selected.

If it still does not work, please copy the complete error message and send it to our support.

### Project doesn't work

Check wiring, chip direction, and try changing wires.

If it still does not work, please take some pictures and send them to our support.

### Processor functions abnormally when running

Press the reset button, or disconnect the power supply, and power on the board again. It may be caused by improper operation or environmental reasons. If every time the processor is powered on, an exception occurs after running for a period of time, check whether your code is reasonable. If you can't solve this problem, please take some photos and send them to our support.

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