

## 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

After you download the ZIP file we provided, unzip it and you will get a folder containing several files and four folders, two of which named C and python respectively. They are development methods based on two different languages when programming ESP32.

The C folder stores C/C++ programming materials based on the Arduino IDE, while the Python folder saves those of MicroPython based on Thonny.

#### **Comparing to C, Python doesn't have projects for Audio, Bluetooth, video transmission.**

If you choose C folder

- C\_Tutorial.pdf  
It contains basic operations such as uploading a sketch to ESP32 board, and knowledge of C programming and electronics.
- Processing.pdf.  
It contains Processing sketches that can interact with ESP32 board.

If you are using Python folder

- Python\_Tutorial.pdf  
It contains basic operations like running python code on the ESP32 board online or offline, and knowledge of MicroPython programming and electronics.

### 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)

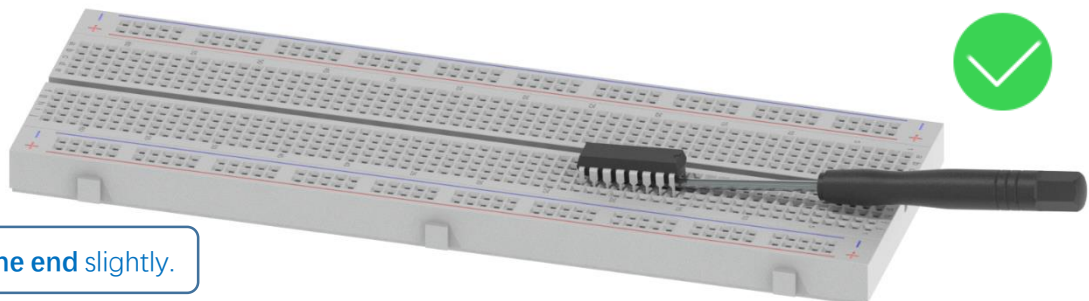
We will reply to you within one working day and provide satisfactory solutions.

## Remove the Chips

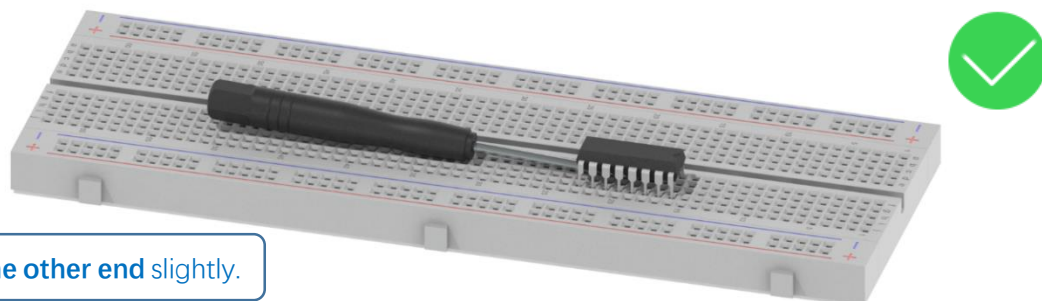
Some chips and modules are inserted into the breadboard to protect their pins.

You need to remove them from breadboard before use.

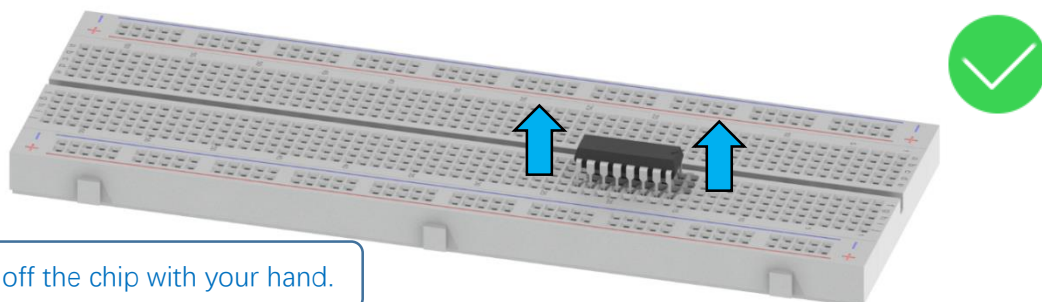
Please find a tool (like a little screw driver) to handle them as below:



Step 1, lift **one end** slightly.

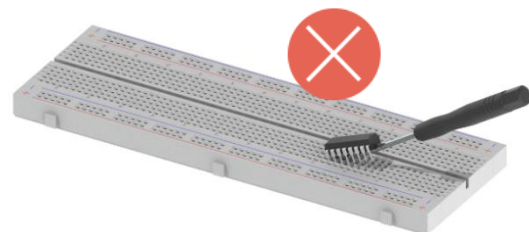
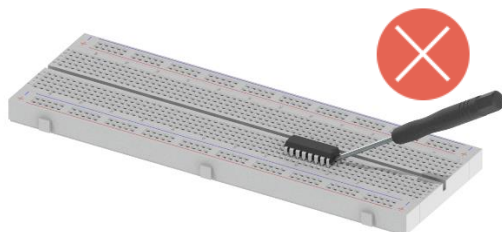


Step 2, lift **the other end** slightly.



Step 3, take off the chip with your hand.

**Avoid lifting one end with big angle directly.**



## 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.

**ESP32 board cannot be recognized by computer or Arduino IDE**

Reinstall the latest version of Arduino IDE. During the installation, agree to install the driver.

If it is still unrecognized, try to use another USB cable if you have.

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.

**ESP32 functions abnormally when running**

Press the reset button, or disconnect the power supply, and power on the board again. Check whether the board is back to normal. This may be caused by incorrect operation or environmental reasons. If every time you power on the board, ESP32 is abnormal when it runs for a certain period of time, please check whether your code is reasonable. If you cannot solve the problem, please take some photos and send them to our support.