



ARDUINO ESP-C3-12F Kit User Guide

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ARDUINO ESP-C3-12F Kit



This guide explains how to setup the Arduino IDE to program the NodeMCU-ESP-C3-12F-Kit.

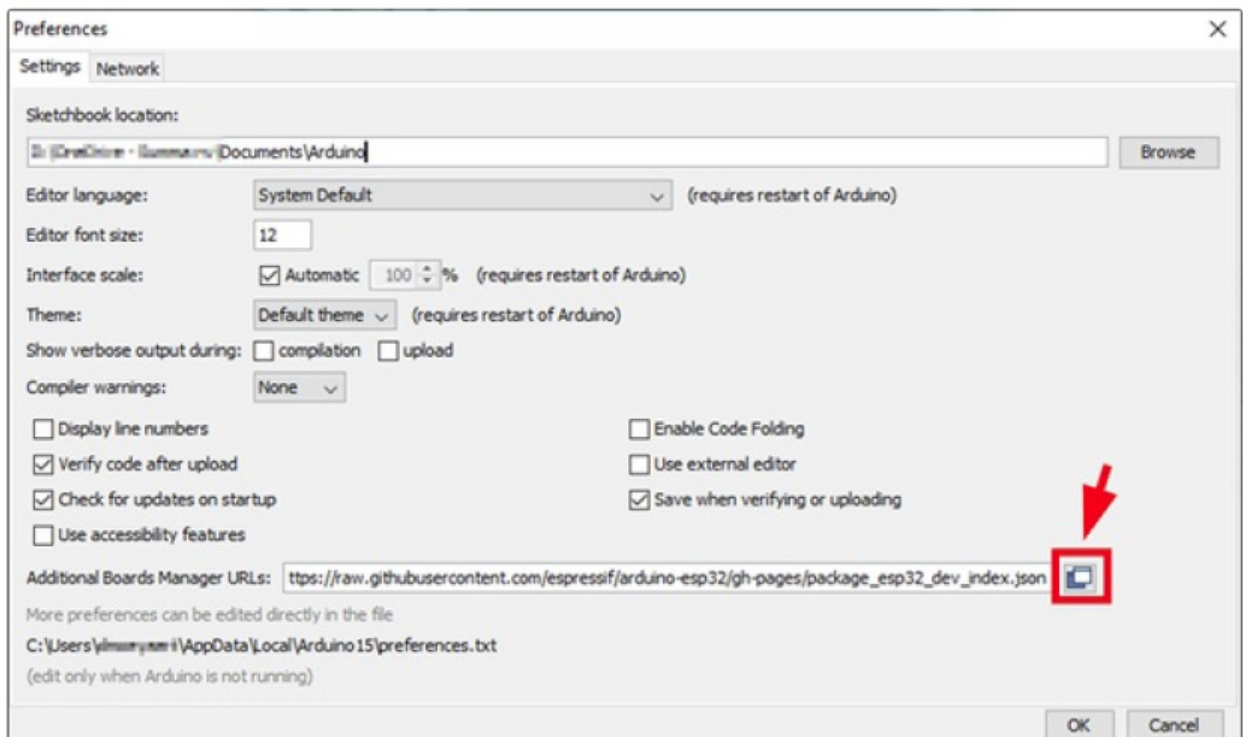
Supplies

- NodeMCU-ESP-C3-12F-Kit, available from Banggood: (<https://www.banggood.com/3PCS-Ai-Thinker-ESP-C3-12F-Kit>)
- USB cable with micro USB connector

Configure

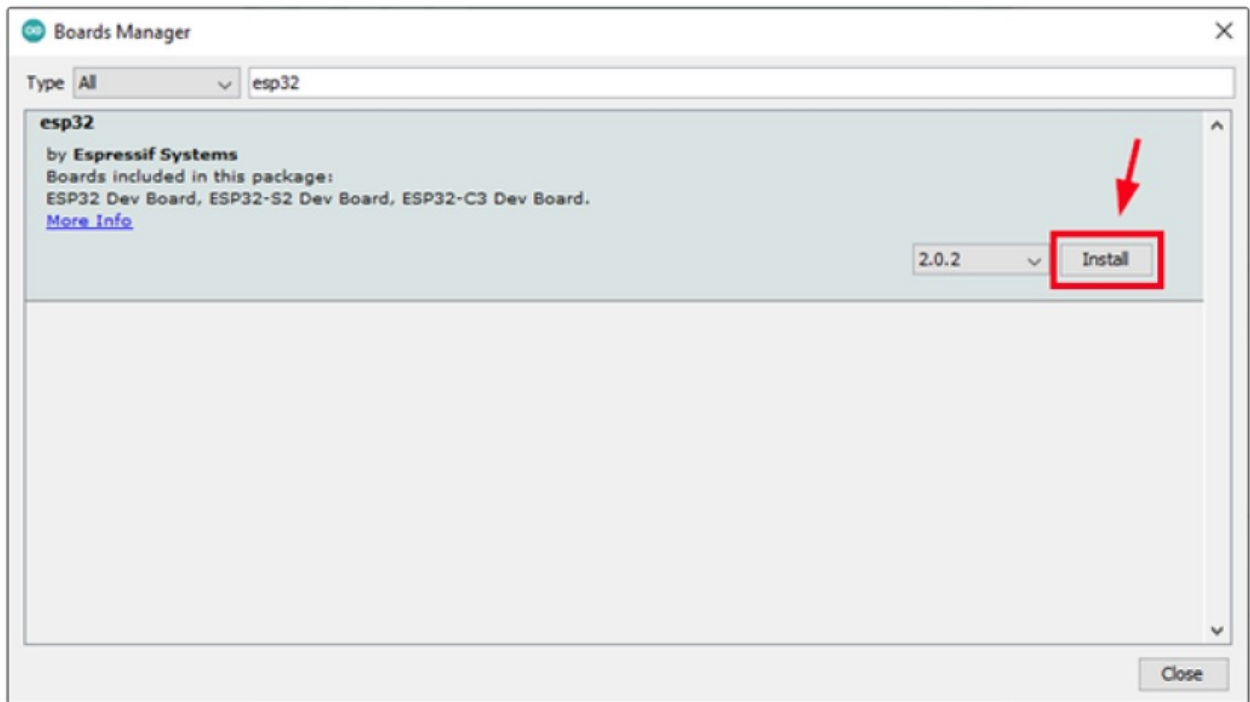
1. Step 1: Configure the Arduino IDE – References

- Click [File] – [Preferences].
- Click the button to add an additional board manager.
- Add the following line: https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_dev_index.json



2. Step 2: Configure the Arduino IDE – Board Manager

- Click [Tools] – [Board: xxxxx] – [Board manager].
- In the search-box, enter “esp32”.
- Click on the [Install] button for the esp32 from Espressif Systems.
- Restart the Arduino IDE.



3. **Step 3:** Configure the Arduino IDE – Select Board

- **Click [Tools]** – [Board: xxxx] – [Arduino ESP32] and select “ESP32C3 Dev Module”.
- **Click [Tools]** – [Port: COMx] and select the communication port belonging to the module.
- **Click [Tools]** – [Upload Speed: 921600] and change to 115200.
- Leave the other settings as they are.

Auto Format	Ctrl+T
Archive Sketch	
Fix Encoding & Reload	
Manage Libraries...	Ctrl+Shift+I
Serial Monitor	Ctrl+Shift+M
Serial Plotter	Ctrl+Shift+L
WiFi101 / Wi-FiNINA Firmware Updater	
Board: "ESP32C3 Dev Module"	>
Upload Speed: "115200"	>
USB CDC On Boot: "Disabled"	>
CPU Frequency: "160MHz (WiFi)"	>
Flash Frequency: "80MHz"	>
Flash Mode: "QIO"	>
Flash Size: "4MB (32Mb)"	>
Partition Scheme: "Default 4MB with spiffs (1.2MB APP/1.5MB SPIFFS)"	>
Core Debug Level: "None"	>
Port: "COM7"	>
Get Board Info	
Programmer	>
Burn Bootloader	

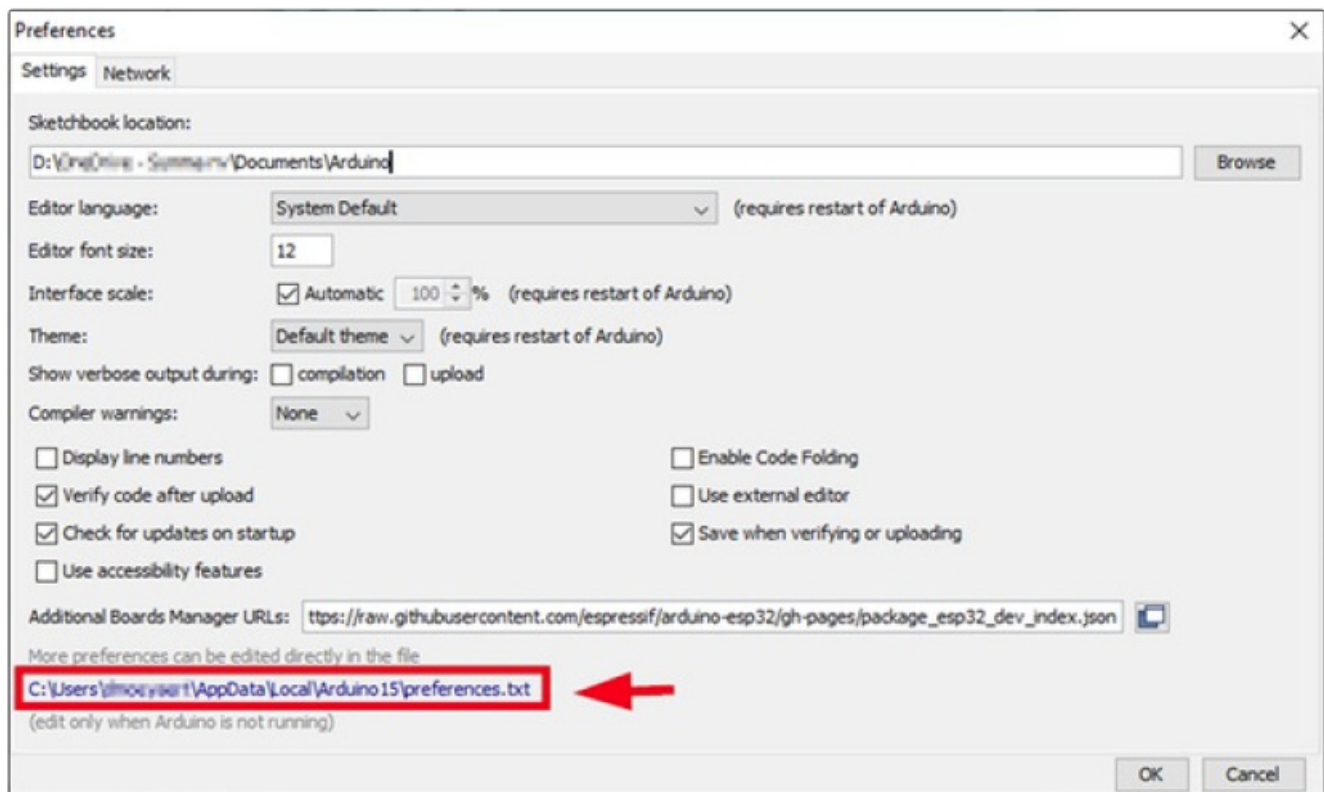
Serial Monitor

Starting the monitor will result in the board to be unresponsive. This is due to the CTS and RTS levels of the serial interface. Disabling the control lines prevents the board to become unresponsive. Edit the file "boards.txt" from the definition of the board. The file is located in the following directory, where xxxxx is the user name:

"C:\Users\xxxxx\AppData\Local\Arduino15\packages\esp32\hardware\esp32\2.0.2"

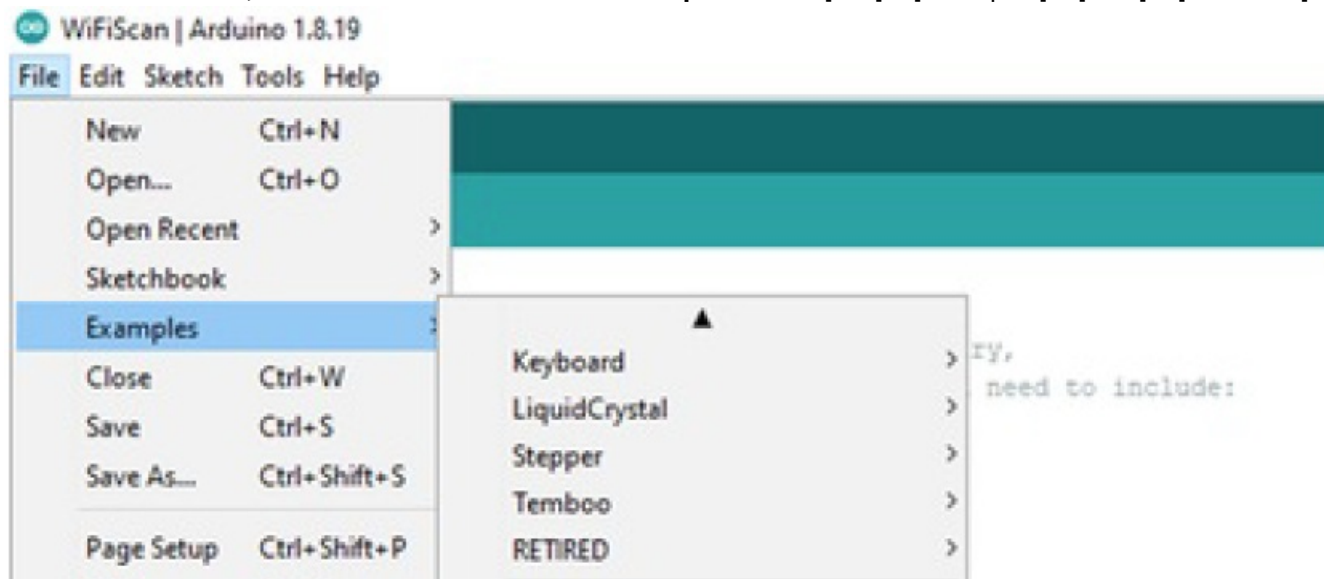
To get to this location, click on the "Preferences" to open the file explorer, then click through to the above location. Change the following lines (lines 35 and 36):

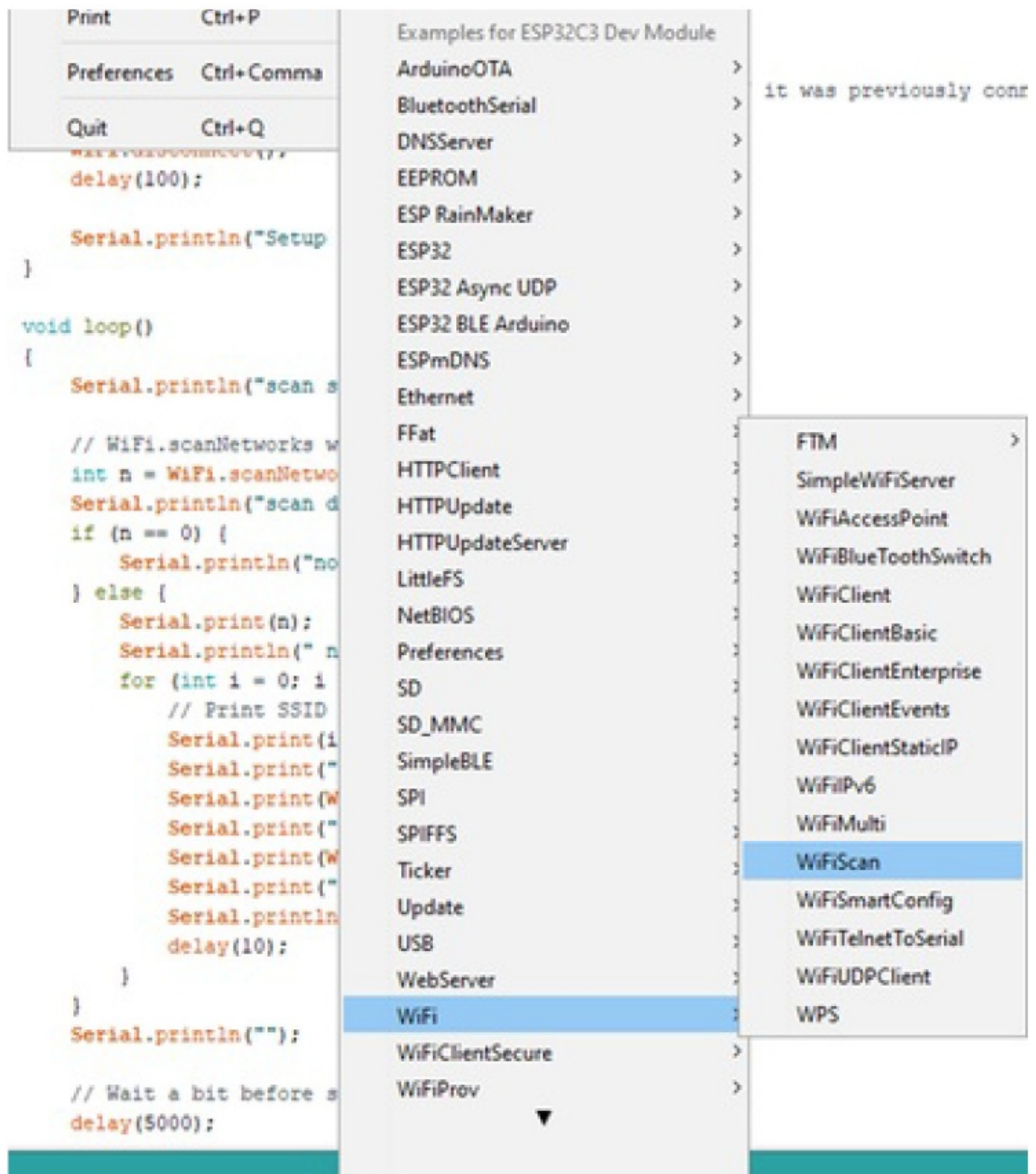
- esp32c3.serial.disableDTR=false
 - esp32c3.serial.disableRTS=false
- to
- esp32c3.serial.disableDTR=true
 - esp32c3.serial.disableRTS=true



Load/create a Sketch

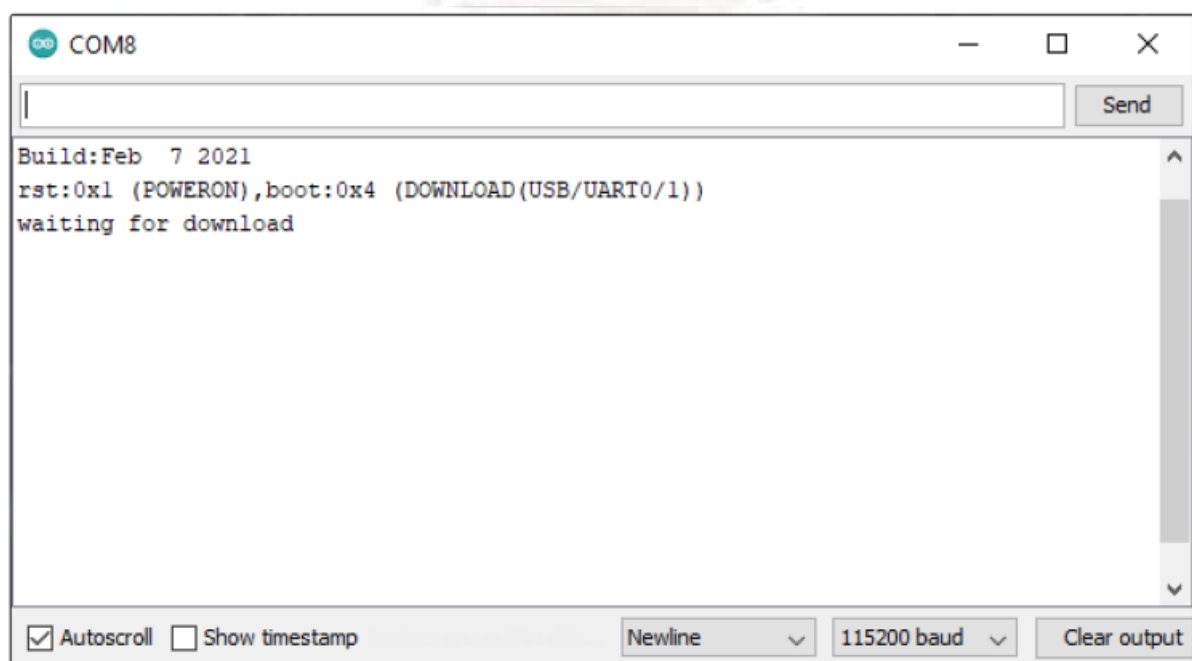
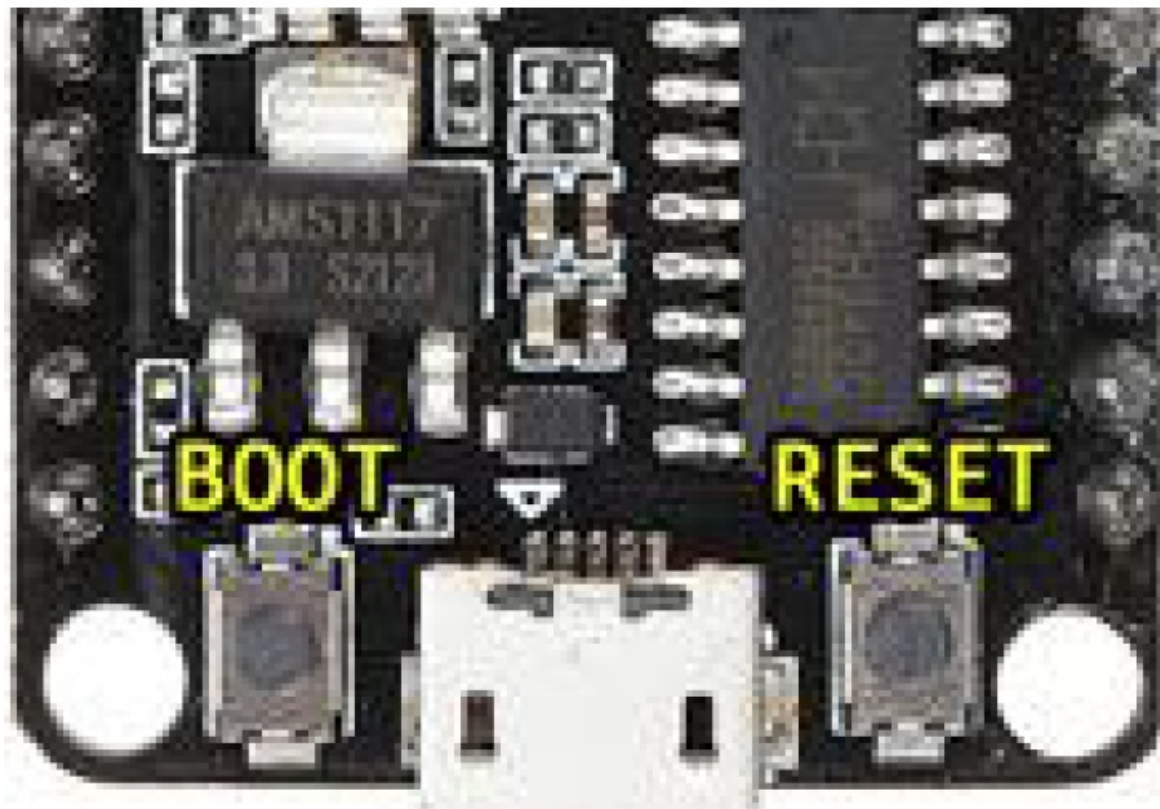
Create a new sketch, or select a sketch from the examples: Click [File] – [Examples] – [WiFi] – [WiFiScan].





Upload the Sketch

Before the upload starts, push the “Boot” button and keep it down. Push and hold the “Reset” button. Release the “Boot” button. Release the “Reset” button. This sets the board in programming mode. Check for the board to be ready from the serial monitor: the message “waiting for download” should be displayed. Click [Sketch] – [Upload] to upload the sketch.



Documents / Resources

	ARDUINO ESP-C3-12F Kit [pdf] User Guide ESP-C3-12F Kit, ESP-C3-12F, Kit
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References

- 👤 [Yours for the making - Instructables](#)

-  [D i r_k's Profile - Instructables](#)
-  [Quick Start Guide ESP-C3-12F : 6 Steps - Instructables](#)
-  raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_dev_index.json
-  [3PCS Ai-Thinker ESP-C3-12F-Kit Series Development Board Base on ESP32-C3 Chip Sale - Banggood USA Mobile-arrival notice](#)

Manuals+.