

# Build firmware ESP3D for BigTreeTech E3 RRF

## Download in source firmware : ESP3D 2.1.1

1 : Extract `ESP3D-2.1.1.zip` and copy the extract folder to the folder of your choice.

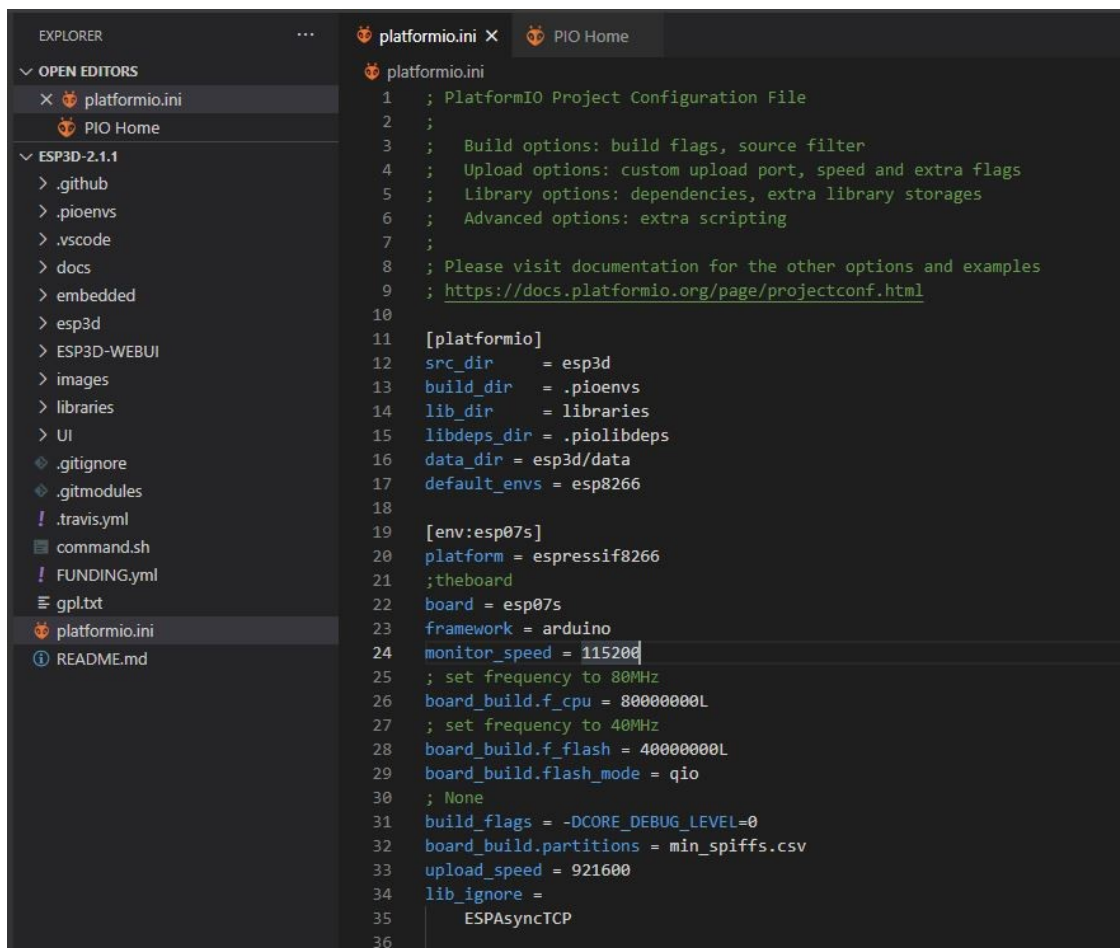
2 : Open Vscode and go to platformio extension. With platformio add folder ESP3D-2.1.1 extract previously.

3 : Now you need to configure the file `platformio.ini` for the wifi module ESP07S.

replace the parameters « dev » by :

```
[env:esp07s]
platform = espressif8266
board = esp07s
framework = arduino
monitor_speed = 115200
board_build.f_cpu = 80000000L
board_build.f_flash = 40000000L
board_build.flash_mode = qio
```

you need to get this:



The screenshot shows the VS Code interface with the Explorer view on the left and the platformio.ini file open in the editor. The Explorer view shows the project structure with folders like .github, .pioenvs, .vscode, docs, embedded, esp3d, ESP3D-WEBUI, images, libraries, UI, .gitignore, .gitmodules, .travis.yml, command.sh, FUNDING.yml, gpl.txt, platformio.ini, and README.md. The platformio.ini file is open in the editor, showing the following configuration:

```
1 ; PlatformIO Project Configuration File
2 ;
3 ; Build options: build flags, source filter
4 ; Upload options: custom upload port, speed and extra flags
5 ; Library options: dependencies, extra library storages
6 ; Advanced options: extra scripting
7 ;
8 ; Please visit documentation for the other options and examples
9 ; https://docs.platformio.org/page/projectconf.html
10
11 [platformio]
12 src_dir = esp3d
13 build_dir = .pioenvs
14 lib_dir = libraries
15 libdeps_dir = .pio/libdeps
16 data_dir = esp3d/data
17 default_envs = esp8266
18
19 [env:esp07s]
20 platform = espressif8266
21 ;theboard
22 board = esp07s
23 framework = arduino
24 monitor_speed = 115200
25 ; set frequency to 80MHz
26 board_build.f_cpu = 80000000L
27 ; set frequency to 40MHz
28 board_build.f_flash = 40000000L
29 board_build.flash_mode = qio
30 ; None
31 build_flags = -DCORE_DEBUG_LEVEL=0
32 board_build.partitions = min_spiffs.csv
33 upload_speed = 921600
34 lib_ignore =
35 ESPAsyncTCP
36
```

4 : Once these parameters are added you can successfully compile the firmware for ESP3D.

5 : the firmware is located in the starting ESP3D folder D:\USER\Document\ESP3D-2.1.1\ESP3D-2.1.1\.pioenvs\esp8266

6 : Rename the firmware.bin file to ESP3D.bin

7 : Now all you have to do is copy this file into your SD card, insert it into your motherboard and turn on your printer. Wait a moment and your firmware is installed!

8 : Your printer is now available on your network, but there are still a few settings to activate so that your user interface works and your printer can connect to your network on its own.

9 : In your network manager connect you to ESP3D, open your browser and enter the base address 192.168.0.1 , the password is 12345678 .

10 : you are now connected to your printer, you will need to add the missing files in order to complete the configuration of your user interface.

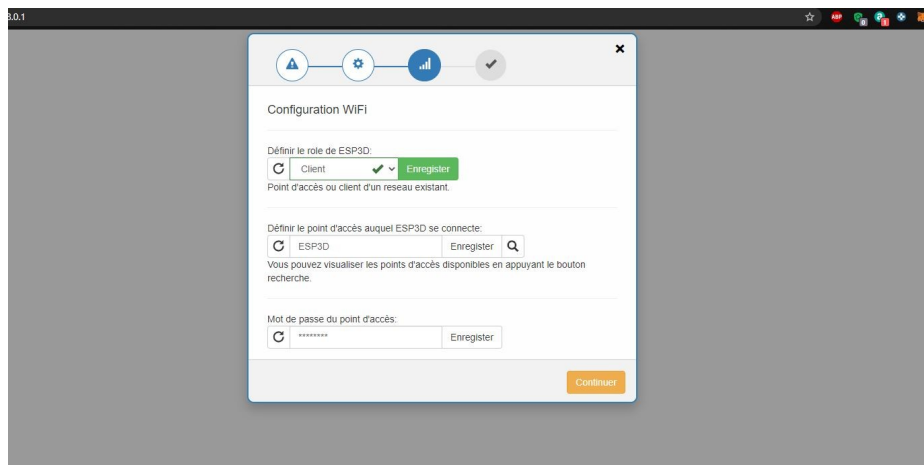
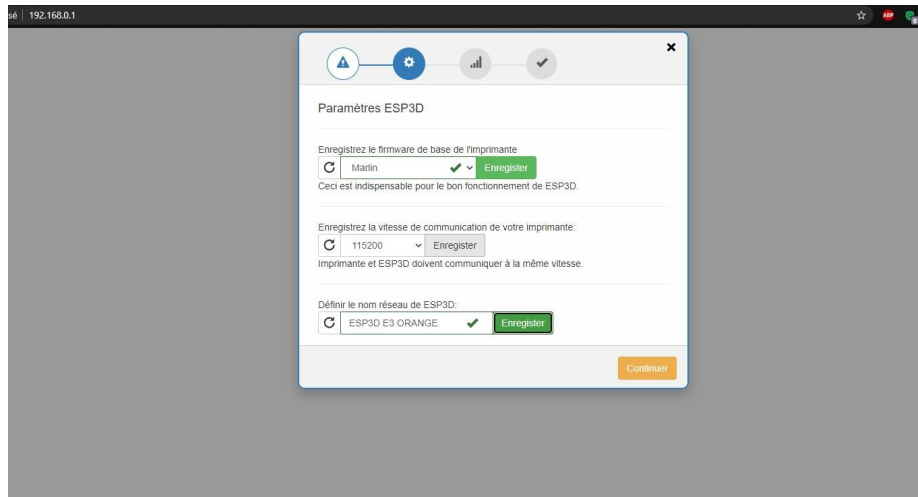
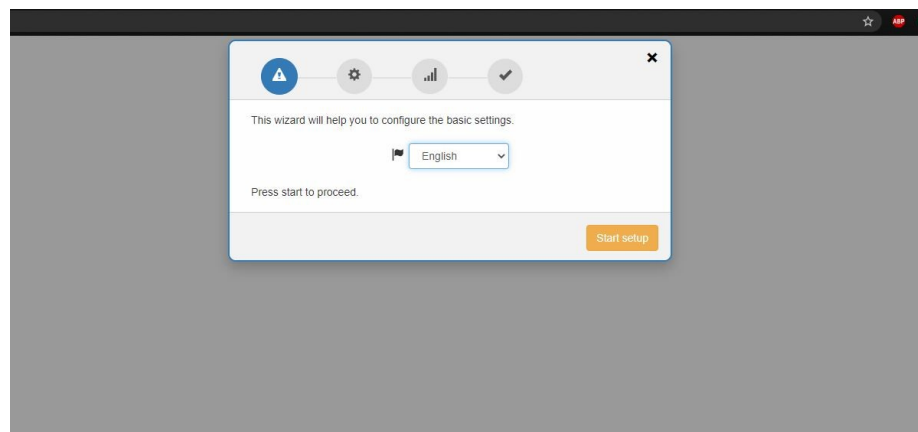
11 : Go to your ESP3D folder and go to the folder D:\USER\Document\ESP3D-2.1.1\ESP3D-2.1.1\docs\Files

you must find this:

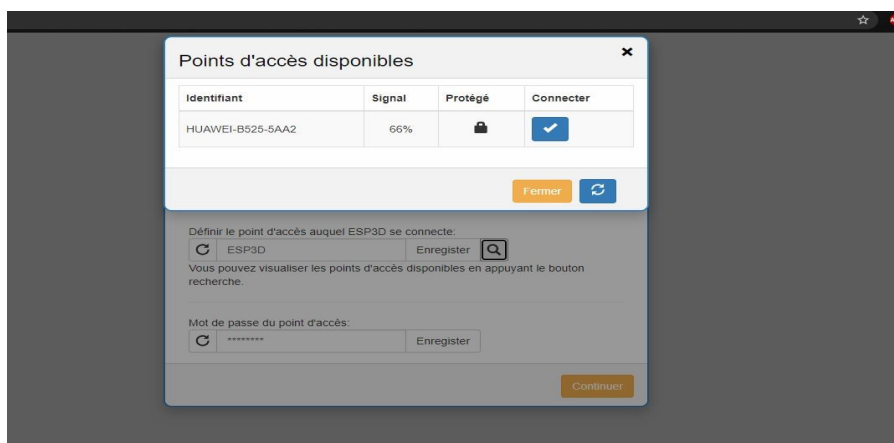
404  
favicon  
index.html

12 : copy the three files into your web interface and click upload

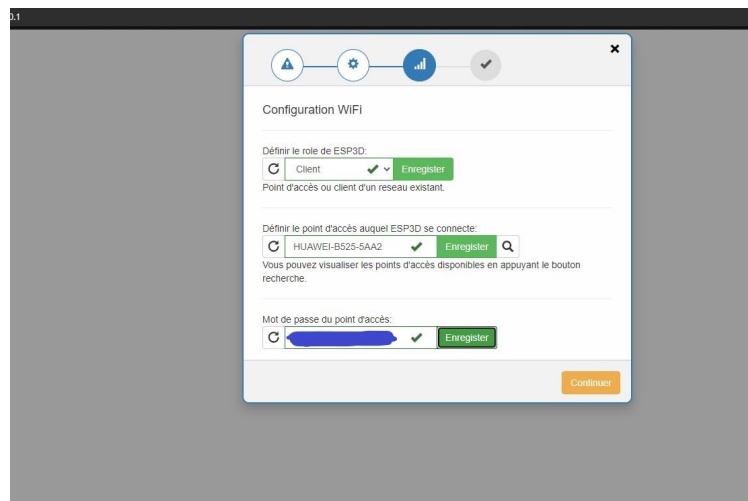
13 : Once the download is complete you can proceed to the web interface configuration step.



Click on the magnifying glass to select your network



add your network password

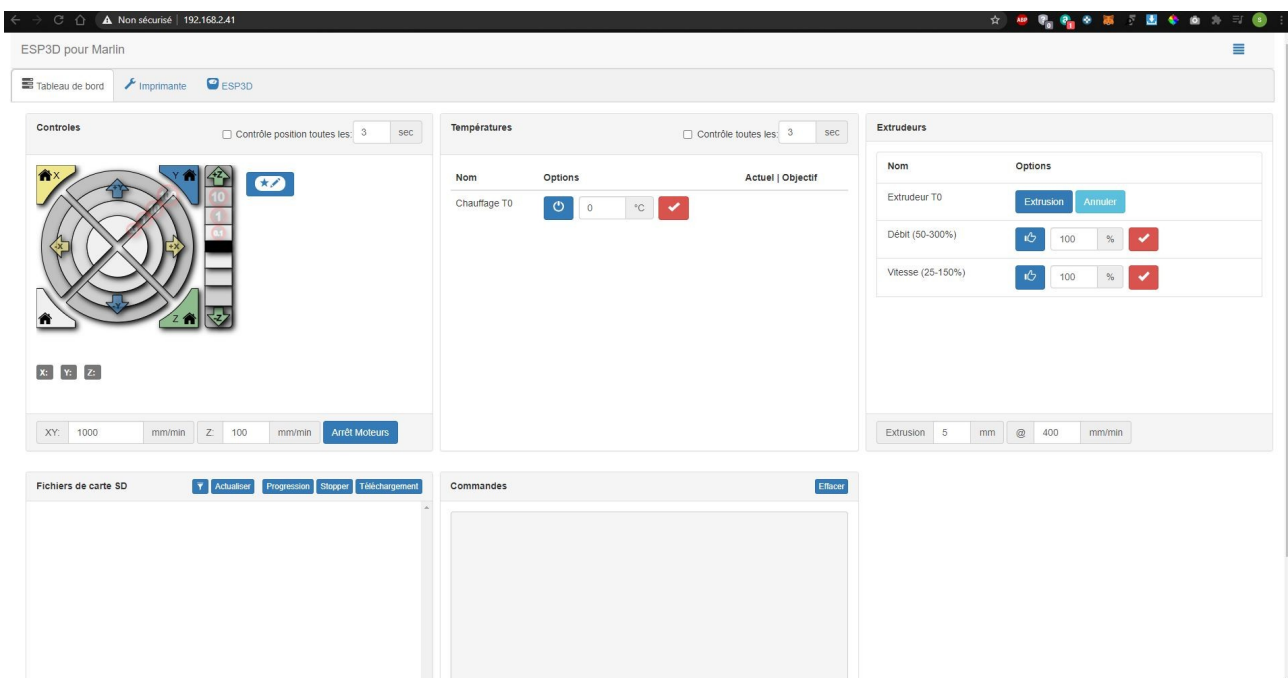


14 : After the configuration is complete, restart your printer and connect your computer to your regular network.

15 : Your printer must now display a new IP address

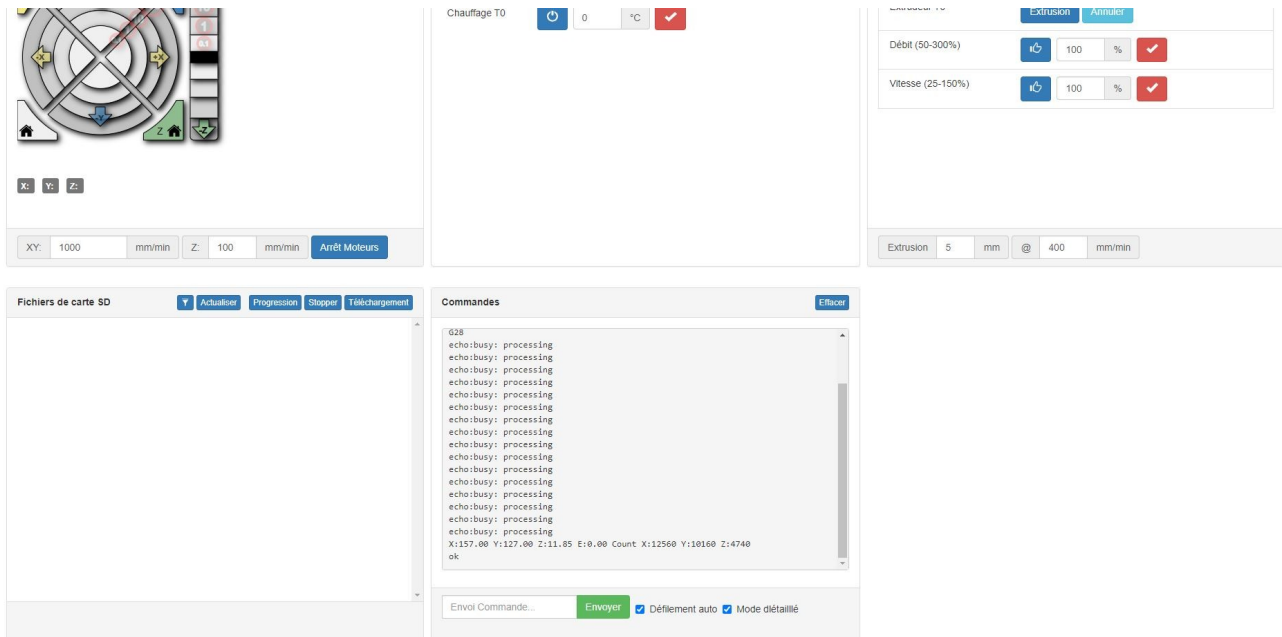
In the example below the IP address is 192.168.2.41

now you are connect !



Perform a test when entering the G28 commands

your printer communicates with your network and realizes are AUTOHOME



The installation is complete, you can configure your ESP3D and printer from the user interface.

Create by So'6 Rallye