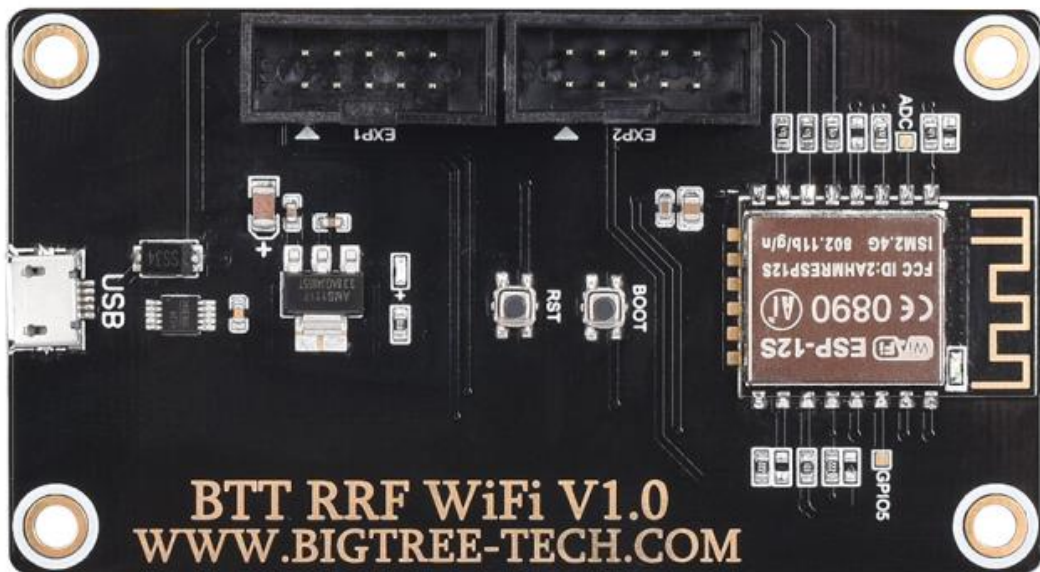# BIGTREETECH RRF WiFi V1.0

主板使用说明书

RepRapFirmware 支持 skr 1.1、1.3、1.4.

安装

通过 RRF 上的 EXP1、EXP2 连接到主板对应的 EXP1、EXP2，接通电源可以看到 PCB 上的蓝色 led 闪烁一次。

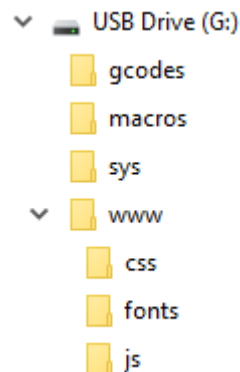连接后，使用 SKR 板上的 USB 端口连接电脑，使用诸如 YAT 或者 pronterface 之类的程序连接开发板，输入以下内容：

M552 S0

M587 S"your SSID" P"your password"

M552 S1

然后，wifi 芯片上的蓝灯将闪烁蓝色，并在建立连接后常亮。IP 地址将显示在串行连接上。也可以键入 M552 以获取当前 IP 地址。

SD card structure

Duets use the following folder structure:

Folder **/gcodes** is used to hold g-code files for printing. You can use subfolders of /gcodes to organize these files.

Folder **/macros** is used to hold used-defined macro files. The names of these files appear as menu entries in DuetWebControl and on PanelDue. You can use subfolders of /macros to organize these files.

Folder **/sys** is used to hold system files and to hold firmware update files ready for installation. It should contain at least thefollowing files:

- **config.g** holds the firmware configuration script, which is executed at startup.

- **config-override.g** holds the configuration parameters that were saved when you last ran M500. Your config.g file should normally include command M501 near the end, to load these saved values at startup and override any similar commands earlier in config.g.

- **homex.g**, **homey.g**, **homez.g** and **homeall.g** are the homing scripts for a Cartesian or CoreXY printer. For a delta printer there is **homedelta.g** instead.

- **bed.g** holds the script for probing the bed and calculating bed compensation on a Cartesian or CoreXY printer, or doing delta calibration on a delta printer.

- **pause.g** is run when you pause a print.

- **resume.g** is run when you resume a print.

- **cancel.g** is optional, but if present is run when you cancel a paused print.

- **start.g** is optional, but if present is run whenever you start a job from the SD card

- **stop.g** is optional, but if present is run when a SD card print finishes normally with a M0 command at the end of the print job.

- **trigger2.g, trigger3.g**, ... are optional files that can be configured to run when particular endstop pins are triggered, for example by an emergency-stop button.

- If your Z probe needs to be deployed and retracted, the script files **deployprobe.g** and **retractprobe.g** are used. They are invoked automatically and by the M401 and M402 commands.

Finally, you will also need a **board.txt** file in the sys folder. For the SKR v1.4, mine contains the following。

```
//Config file to define Hardware Pins LPC Boards.
//Note: Each line should be less than 120 characters.
//     : Unwanted options can be commented out or set to NoPin. Lines commented out will get default values
//     : for pins the default is NoPin.
//     : Values for Arrays need to be contained within { and }
//     : Comments can be defined with // or # (comments are not supported inside arrays)
//     : Each config entry must be all on a single line.

//Config for BIQU SKR v1.4 (using config setting from Rob Mendon)

lpc.board = biquskr_1.4

//wifi pins
8266wifi.EspDataReadyPin = 0.28
8266wifi.LpcTfrReadyPin = 1.30
8266wifi.EspResetPin = 1.31
adc.prefilter.enable = true
```

board.txt examples can be found:

https://github.com/gloomyandy/RepRapFirmware/tree/v3.01-dev-lpc/LPC/ExampleBoardConfig

NOTE: the folders /gcodes, /macros, /sys must be named exactly as shown. Often the distribution of configuration for a specific printer platform will come with the folder named /sys-<printer_type> the -<printer_type> must be removed.

The configurator can be used to setup these files for your printer type: https://configurator.reprapfirmware.org/

A copy of the SD card folders, as shipped with the latest Duets is available here:
https://github.com/Duet3D/DuetWebControl/releases

The /www folder and its subfolders hold the files served by the web server. If you are setting up a new SD card, populate the /www folder by extracting the contents of the DuetWebControl.zip file to it.
https://github.com/Duet3D/DuetWebControl/releases

固件版本：

在 WebControl 的"Settings"，然后选择"General"查看固件版本，如下图所示：
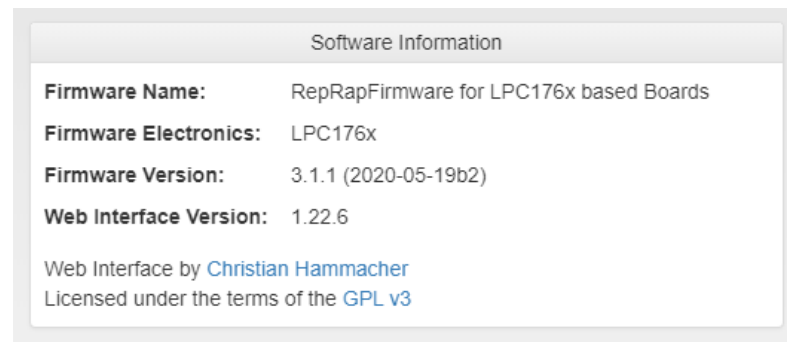
RepRapFirmware 出产时已经安装好固件，但是建议检查更新版本，如果要升级到最新版本。参考更新 RepRapFirmware。

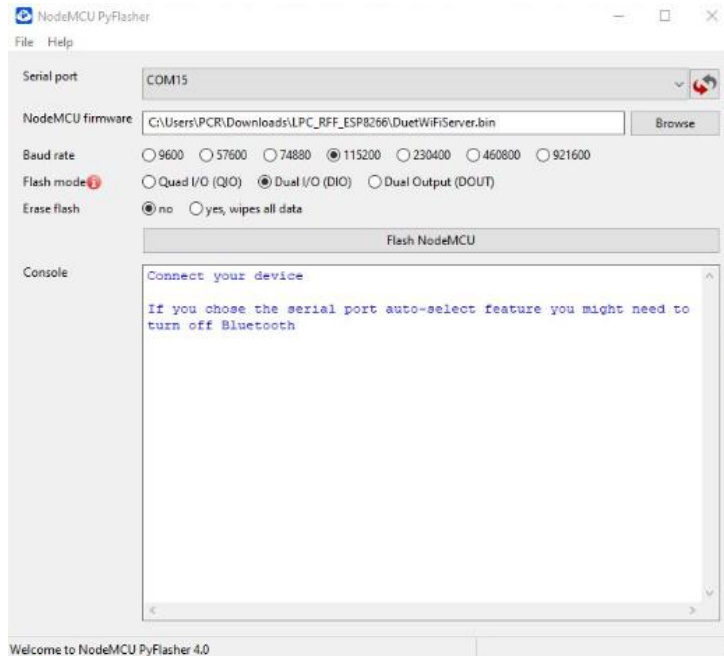## Checking versions when not on the network yet

If you cannot get onto DuetWebControl yet because the network is not setup then connect using YAT or another terminal program and use M122 to get a print out of the versions.

更新 RepRapFirmware:

- 获取最新固件：
  https://github.com/gloomyandy/DuetWiFiSocketServer/releases
- 断开 SKR RRF 转接板的 EXP1 和 EXP2；
- 连接 RRF 的 USB；
- 打开 NodeMcu PyFlasher:
  https://github.com/marcelstoer/nodemcu-pyflasher/releases

- 选择正确的 `DuetWifiServer.bin`、`Baudrate and Flashmode`,如果您使用 `esptool.py`,请使用以下指南:
   https://rosspeter.org/flashing-the-webserver-on-my-rff-skr-adapterboard

- press "Flash NodeMCU",and wait a minute.
- After the flashing is complete, you can disconnect the micro USB cable. Now you can plug EXP1 and EXP2 in and start the printer!

Known firmware issues and limitations

Version 1.22.6 firmware used with DuetWebControl 1.22.6 had the following known issues and limitations:

- Connecting to the Duet 2 WiFi by name only works if your client device supports mDNS protocol (e.g. Apple Bonjour service). Otherwise you have to connect to it by IP address.
- You cannot change microstepping on the fly during a print, because you must re-home the printer after changing microstepping.
- 无法通过 M997 S1 更新 WIFI 模块固件,只能通过 USB 接口更新固件。

- 尺寸图:
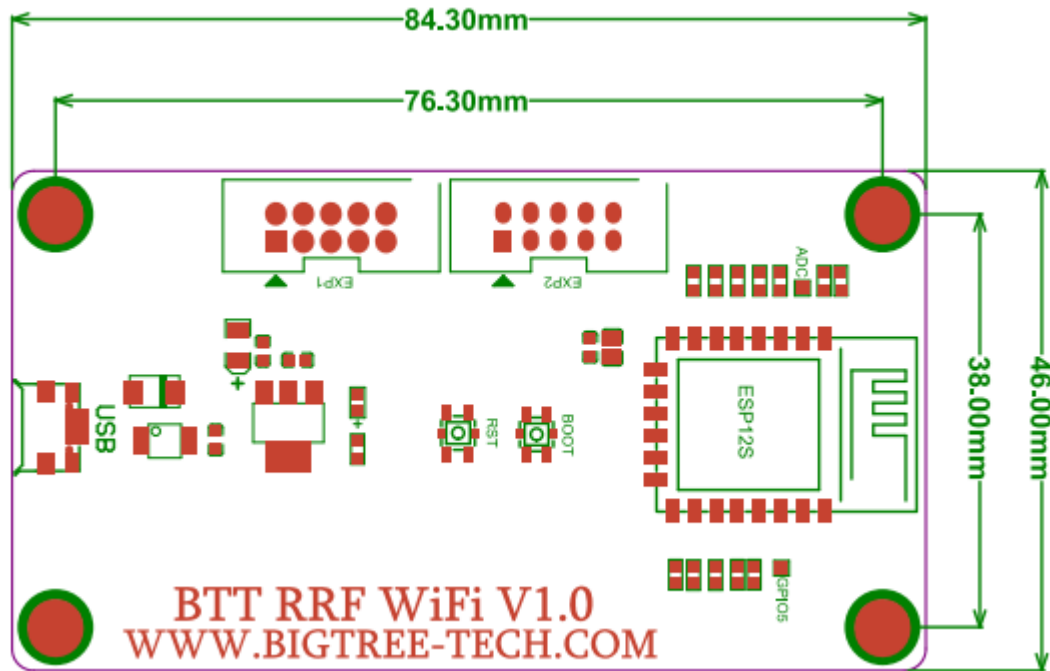
若您使用中还遇到别的问题，欢迎您联系我们，我们定会细心为您解答；若您对我们的产品有什么好的意见或建议，也欢迎您回馈给我们，我们也会仔细斟酌您的意见或建议，感谢您选择 BIGTREETECH 制品，谢谢！