

Part1: How to use Reprap Firmware

First, download the firmware package on FLYmaker's github

Download the firmware package for the corresponding motherboard

FLY-RRF-E3: <https://github.com/FLYmaker/FLY-RRF-E3>

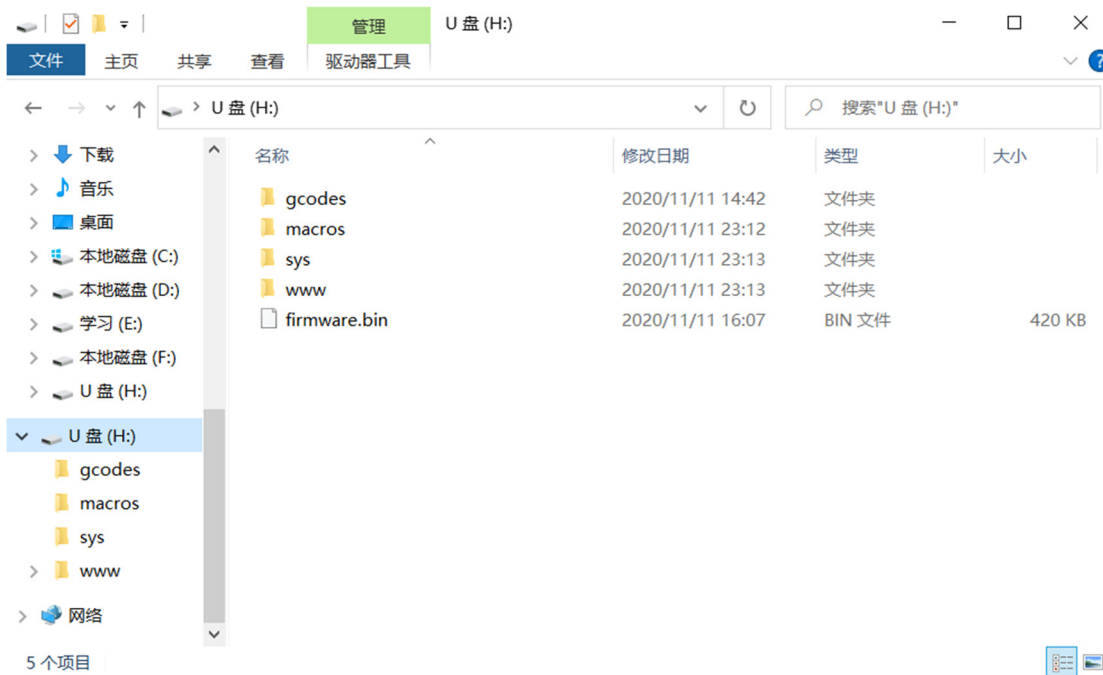
FLY-CDY: <https://github.com/FLYmaker/FLY-CDY>

FLY-F407ZG: <https://github.com/FLYmaker/FLYF407ZG>

Further reading on LPC and STM32: <https://github.com/gloomyandy/RepRapFirmware/wiki>

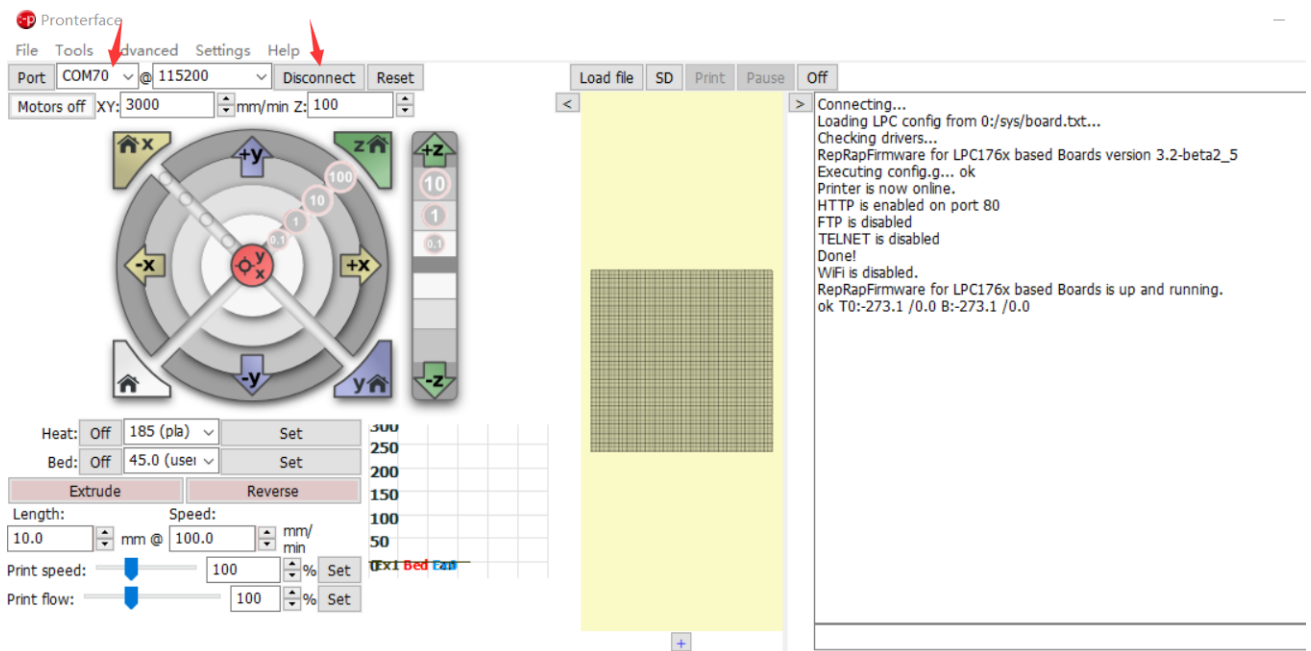
Download FLY's github file package for first-time use

1. Copy the files in the RepRap firmware folder to the root directory of the SD card

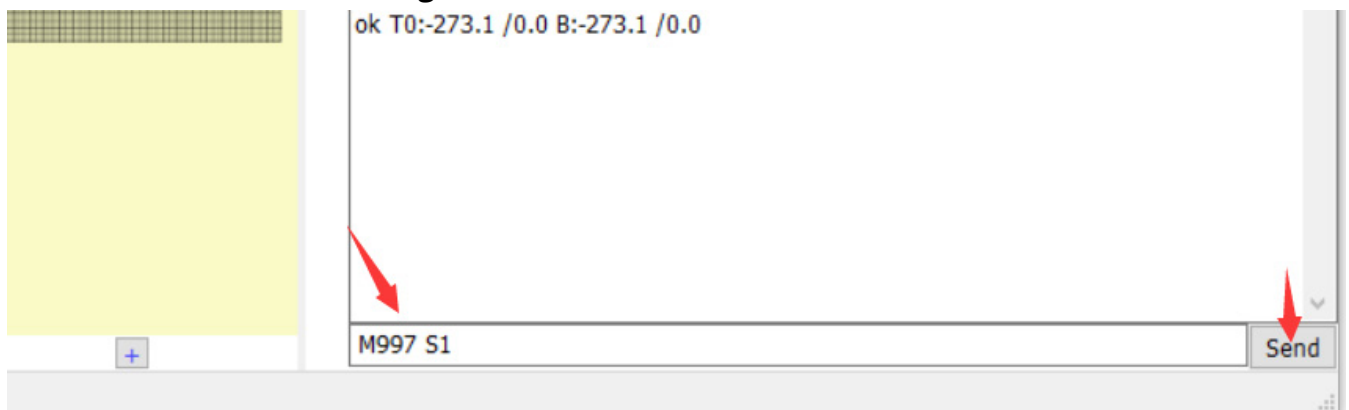


2. Insert the SD card into the motherboard
3. Restart/Reboot/Re-power the motherboard
4. Plug all the pins around the wifi module as shown in the figure:

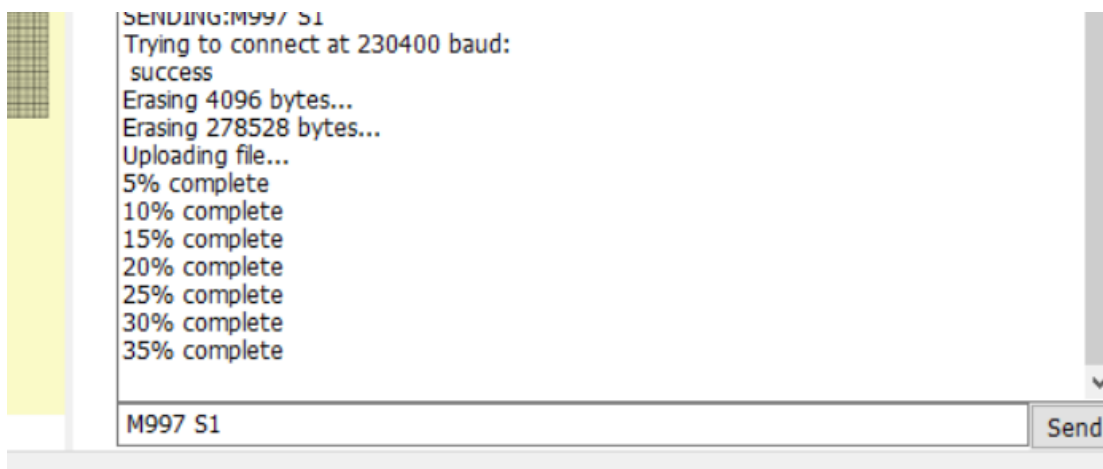
5. Open the terminal software(Pronteface), select the port and click connect



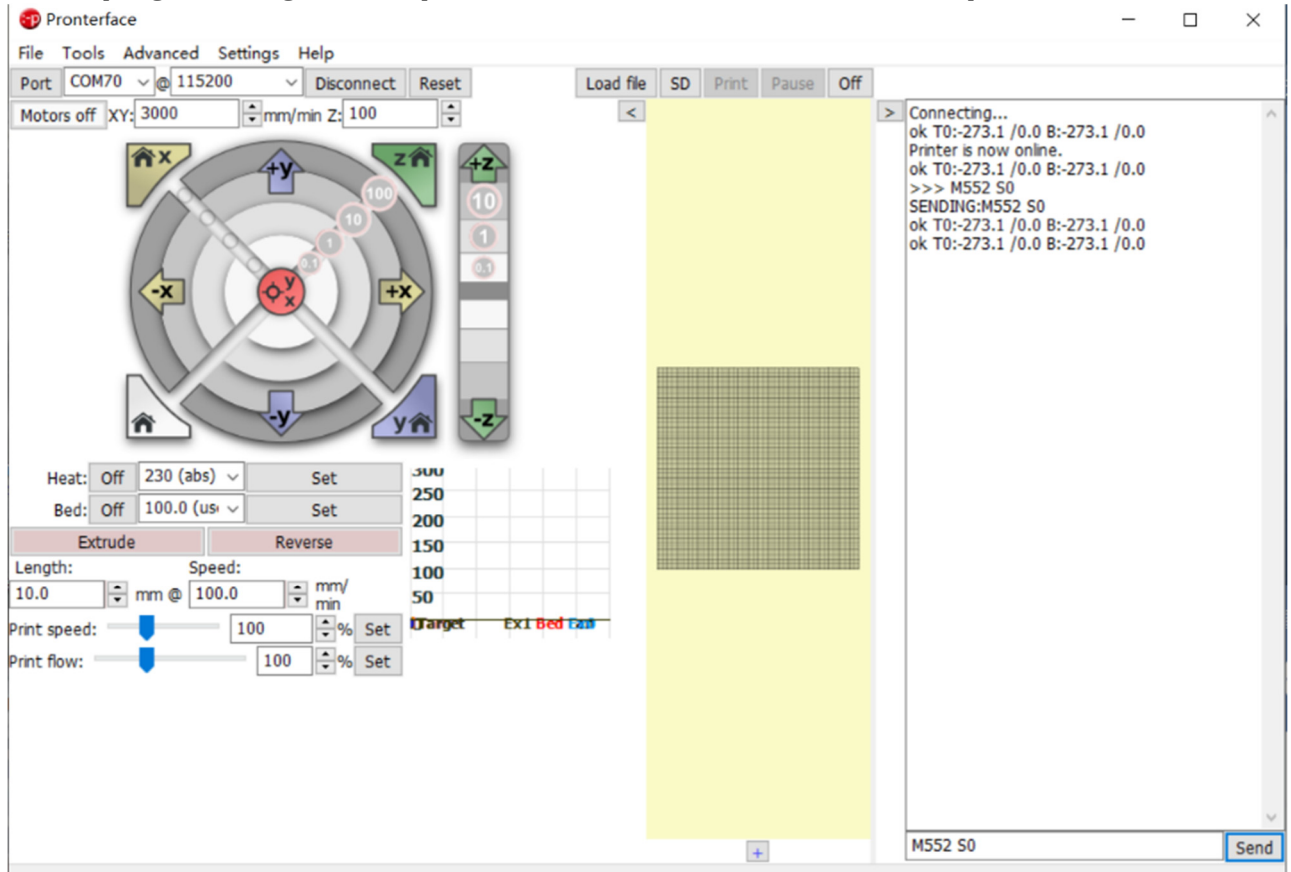
6. Enter M997 S1 in the lower right corner, and then click send



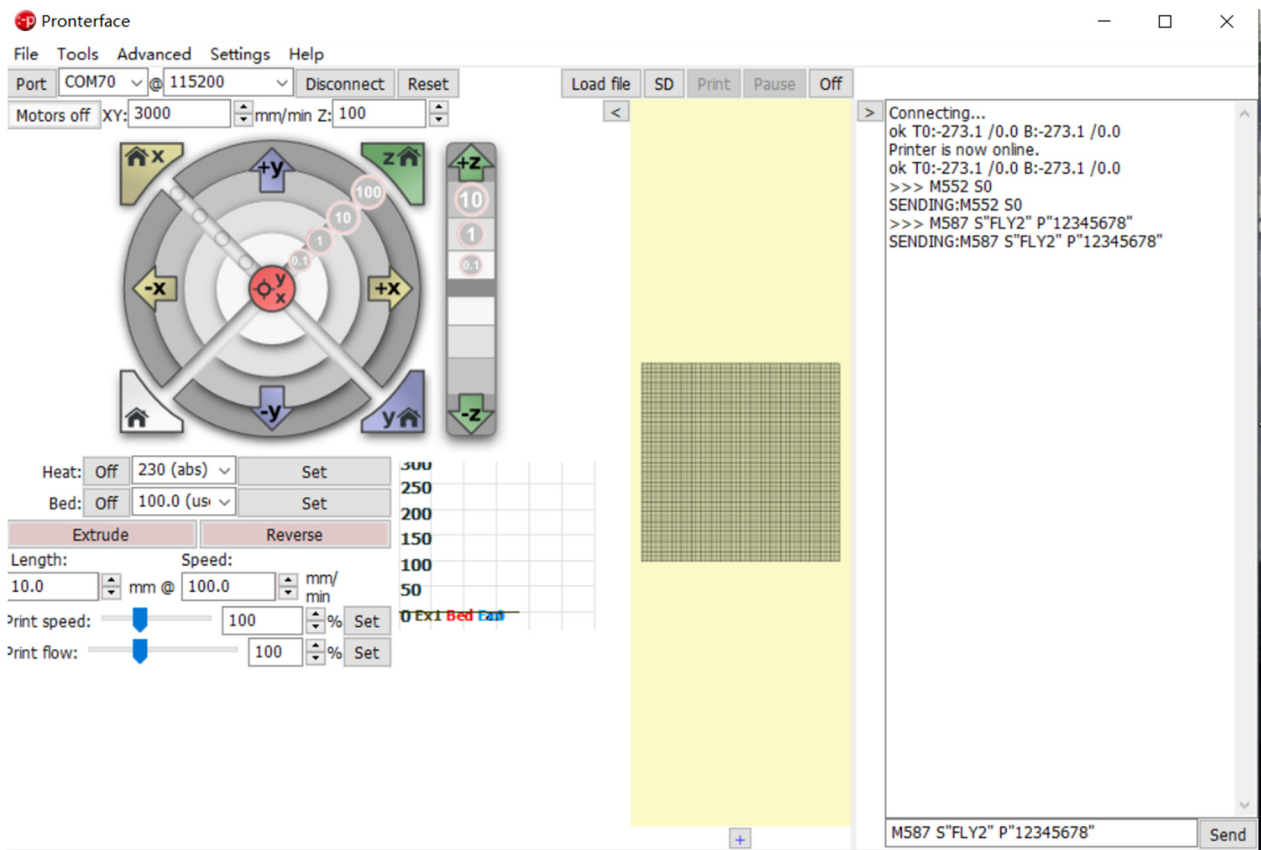
7. This step is to burn the motherboard wifi program



8. After programming is complete, send M552 S0 command to put wifi in idle mode



**9. Send M587 S"WIFI name" P"WIFI password" command
(The system will automatically remember the WIFI name and password)**



Important Note:

If your wifi password contains **lowercase**, please add (') before the letter to configure according to the following example:

Example 1

WIFI name: FLY2

WIFI password: fly12345

Send as:

M587 S"FLY2" P"'f'l'y12345"

Example 2

WIFI name: FLY2

WIFI password: 12345678

Send as:

M587 S"FLY2" P"12345678"

10. send M552 S1, to turn on the network connection

The screenshot shows the Pronterface software interface. The main window displays a 3D printer model with various controls. On the right side, there is a terminal window showing the communication between the software and the printer. The terminal output is as follows:

```
> Connecting...
ok T0:-273.1 /0.0 B:-273.1 /0.0
Printer is now online.
ok T0:-273.1 /0.0 B:-273.1 /0.0
>>> M552 S0
SENDING:M552 S0
>>> M587 S"FLY2" P"12345678"
SENDING:M587 S"FLY2" P"12345678"
ok T0:-273.1 /0.0 B:-273.1 /0.0
ok T0:-273.1 /0.0 B:-273.1 /0.0
ok T0:-273.1 /0.0 B:-273.1 /0.0
>>> M552 S1
SENDING:M552 S1
WIFI module is connected to access point FLY2,
IP address 192.168.137.239
```

At the bottom of the terminal window, the command "M552 S1" is entered in the input field, and the "Send" button is visible.

11. Enter the Printer IP address into the web browser

The screenshot displays the Marlin web interface in a browser window. The address bar shows the IP address 192.168.137.239. The interface includes a sidebar with navigation options: Machine Control, Dashboard, Console, Height Map, Current Job, Status, and File Management. The main content area is divided into several sections:

- Status:** Shows the printer is in 'Idle' mode. Tool position is X: 0.0, Y: 0.0, Z: 0.00. Extruder drives are at 0.0. Speeds are 0 mm/s. Sensors show MCU Temperature at 0.0 C.
- Tools + Extra:** Displays tool and heater information. Tool 0 is loaded. Heater 1 is off at -273.1 C. Heater 0 is off. The bed temperature is n/a.
- Temperature Chart:** A graph showing temperature over time for Heater 0 and Heater 1.
- Machine Movement:** A section for homing and movement commands. It includes buttons for HOME ALL, HOME X, HOME Y, HOME Z, and various movement commands like X-50, X-10, X-1, X-0.1, X+0.1, X+1, X+10, X+50, etc.
- Macros:** A section for managing macros. It shows 'No Macros' and two error messages: 'Failed to get file list: Directory 0:/macros not found'.

A red banner at the bottom of the interface states: "The following axes are not homed: X, Y, Z".

Part2: Configure the machine

<https://jaysuk.github.io/LPCConfigurator> Open this URL with a browser

应用 百度 淘宝 京东 天猫 苏宁易购 bdring / Gbl_Esp... 下载内容 福利来啦!!! ST...

Start General I/O Mapping Motors Endstops Heaters Fans Tools Compensation Display Network Finish

Welcome to the RepRapFirmware Configuration Tool (for LPC1768/1769 based boards)

Please follow this wizard to obtain an individual configuration bundle for your printer

If you are using a printer that was originally shipped with RepRapFirmware, you can select a predefined template here:

You can create your own individual configuration by creating a new one from scratch or by loading an existing JSON template:

☒ Custom configuration
☐ Use existing configuration

Note: If you encounter problems, please report your problems on [GitHub](#).
Some configuration options may not be available yet. In this case please refer to the [Duet3D wiki](#).

This web app is fully open-source and licensed under the terms of the [GPLv3](#). Version 3.1.4-LPC-6

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1. Choose motherboard: (Fly-f407zg, Fly-cdy, Fly-e3)

Start General I/O Mapping Motors Endstops Heaters Fans Tools Compensation Display Network Finish

General Preferences

Board:

Fly-CDY

Firmware version:

3.0 or later (stable)

Printer Name:

My Printer

☐ Read config-override.g file at end of startup process

Printer Geometry

Cartesian

CoreXY

CoreXZ

Delta

X minimum:

0

mm

X maximum:

230

mm

Y minimum:

0

mm

Y maximum:

210

mm

Z minimum:

0

mm

Z maximum:

200

mm

This machine uses individual motors to drives each axis

Important Note:

Other settings are based on your own machine and network configuration.

Just edit the values in the green box as shown in the diagrams, and other configurations are not required

Start General I/O Mapping Motors Endstops Heaters Fans Tools Compensation Display Network Finish

Network Settings

☒ Enable Network via Ethernet or ESP8266

Password for the web interface (HTTP), FTP, and Telnet:

reprint

Your WiFi Network Name:

configure manually

WiFi Password:

none

espDataReadyPin:

0.28

lpcTfrReadyPin:

2.7

espResetPin:

2.6

☒ Use RX/TX to update ESP8266 via DWC

serialRxPin:

0.1

serialTxPin:

0.0

☒ Acquire Dynamic IP Address via DHCP

☒ Enable HTTP (required for the web interface)

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2. If you have a FLY touch screen, put this command in Custom Settings for config.g:
M575 P1 S0 B57600

Start General I/O Mapping Motors Endstops Heaters Fans Tools Compensation Display Network **Finish**

Extra Files

- ☒ Get the latest stable Duet Web Control version
- ☒ Get the latest stable RepRapFirmware version

Miscellaneous

☐ Enable support for PanelDue

Custom Settings for config.g: [Full list of all available G-codes](#)

M575 P1 S0 B57600

« Back Finish »

☐ Enable support for PanelDue

Custom Settings for config.g: [Full list of all available G-codes](#)

M575 P1 S0 B57600

« Back Finish »

3. Download the generated file:

Put the RepRapFirmware files in the /sys directory and extract Duet Web Control bundle to the /www directory of your SD card. If you are using Duet Web Control, upload those files on the Settings page.

- [Duet Web Control 3.1.1](#)

The following system files will be generated:

- [bed.g](#)
- [board.txt](#)
- [config.g](#)
- [homeall.g](#)
- [homex.g](#)
- [homey.g](#)
- [homez.g](#)
- [pause.g](#)
- [resume.g](#)
- [sleep.g](#)
- [stop.g](#)
- [tfree0.g](#)
- [tpre0.g](#)
- [tpost0.g](#)

If you are using Duet Web Control, you can upload the ZIP file(s) without extracting on the Settings page. Otherwise you can extract the contents of this configuration bundle directly to the root of your SD card.

See [this page](#) for further information about the purpose of these files.

Download JSON template

Download configuration bundle as ZIP file

4. Extract downloaded file



5. Copy the extracted sys folder and Replace the sys folder of the SD card on the motherboard.

Congratulations!

Your printer is now fully configured!