FAQ

- FOR MKS V1.1 Firmware Refresh (up-date)
- Heating head Adjusting the PID
- Hot bed PID adjustment method
- Computer and printer USB connection
- Motor direction and motor current modification

  Motor direction and motor current modification

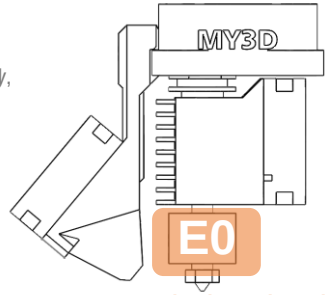


MY 3D DIYMARIA

2020/1/12 bate

Adjusting the PID

The PID value has been set at the factory, and there is no need to modify it by default. If the temperature fluctuates greatly, or a temperature error occurs during operation, please modify it as follows.

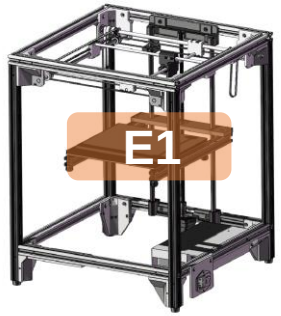


Nozzle heating block

Command head heating target: M303 E0 C8 S230

- E0 Nozzle heating block
- C8 Number of Detection frequency
- S230 is the head heating target temperature of 230°C.

（Reference Nozzle value: **PLA- 195 °C　ABS-230 °C**）



Hot bed

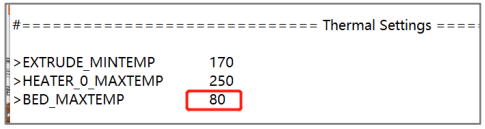
Command hot bed : M303 E-1 C8 S50

- E-1　Hot bed
- C8　Number of Detection frequency
- S50　Is the target temperature of the hot bed

（Reference Hot bed value: **PLA- 50 °C　ABS-80 °C**）

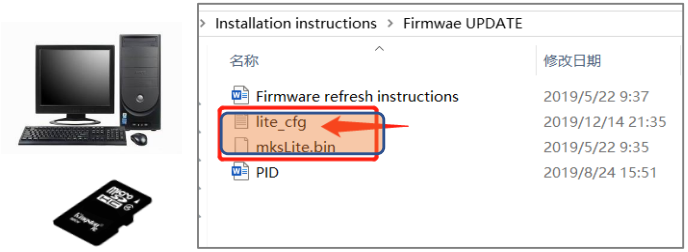
Ensure safety, the maximum temperature has been set in the firmware
Nozzle temperature cannot be higher than 250 ℃
Hot bed temperature　cannot be higher than 110℃

the hot bed has been set in the firmware not higher than 80 ° C. Hot-bed magnetic stickers are not recommended for long-time work above 80 ° C. If 110 ℃ is needed, please modify the maximum temperature of the firmware hot bed



FOR MKS V1.1 Firmware Refresh(up-date)

TOP

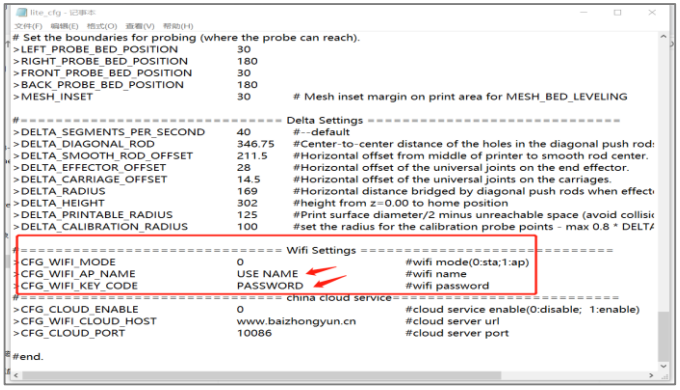


1

Open the **lite_cfg** file with Notepad

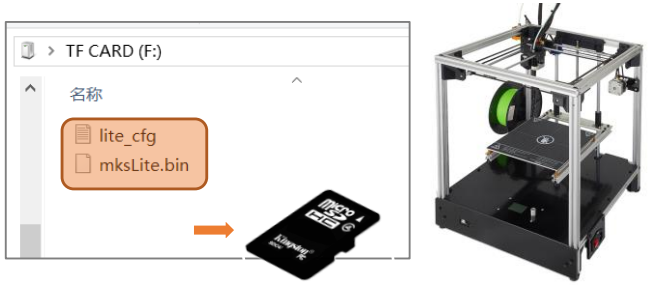
Download the latest firmware

https://github.com/my3dltd/F1-MKS-V1.1-Firmware



2

Modify the corresponding value
Such as motor direction PID WIFI, etc.



3

Copy the modified **lite_cfg** file and **mkslite.bin** to the TF card,
insert the 3D printer ,
And then turn on the power switch again.
Will update automatically.

After the update, the files in the TF card are automatically invalidated (can be deleted) and can only be updated once. If you need to update again. Pls re-copy the file into the TF card.

TOP

- First connect the pc and printer with usb cable

- Turn on the power switch

- Open the host computer software (RepetierHost or Pronterface, etc.) to connect to the printer.

  Pronterfac `` http://www.pronterface.com/index.html#download ``
  Repetier-Host `` https://www.repetier.com/ ``

- When the connection is wrong, please turn off the printer power, reconnect the USB connection, and then turn on the printer power switch again.

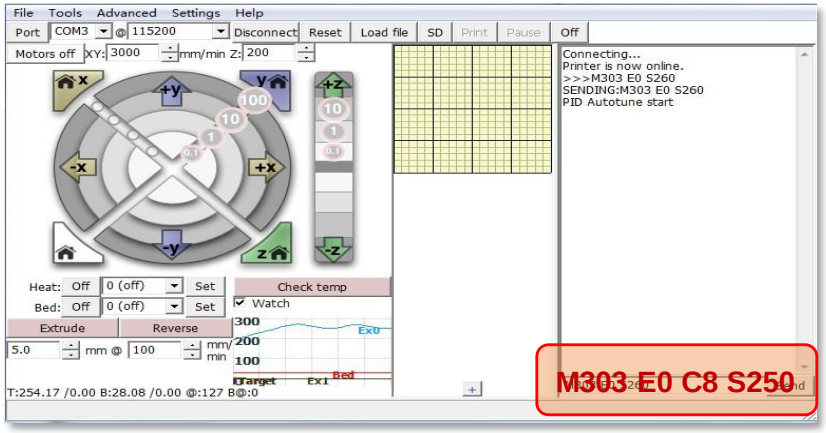
Normal heating print waiting time (tested at 25 ° C Room temperature)
PLA heating head 195 ° C hot bed 50 ° C usually starts printing for 3-5 minutes
ABS heating head 260 ° C hot bed 80 ° C usually start printing 5-7 minutes
F1-A F1-B (24v 350w 110/220v) Power of hot bed: 200-250W Heating head power: 50w

Heating head Adjusting the PID

TOP

The PID value has been set at the factory, and there is no need to modify it by default. If the temperature fluctuates greatly, or a temperature error occurs during operation, please modify it as follows.

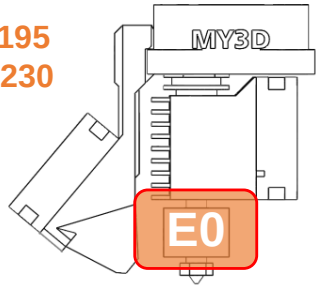
1 Send the code " M303 E0 C8 S250 " to the printer in the host computer software.



Reference Nozzle value:

PLA- 195 °C **M303 E0 C8 S195**

ABS-230 °C **M303 E0 C8 S230**



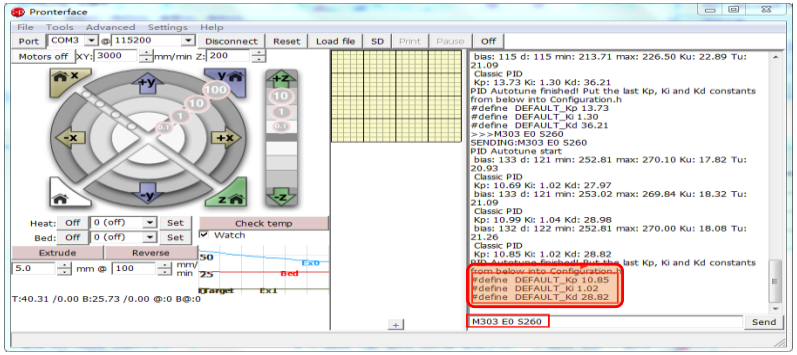
- E0 Nozzle heating block
- C8 Number of Detection frequency
- S230 is the head heating target temperature of 230°C.

! PID Autotune failed! Temperature too high

Please check the temperature protection setting in the firmware

When the connection is wrong,

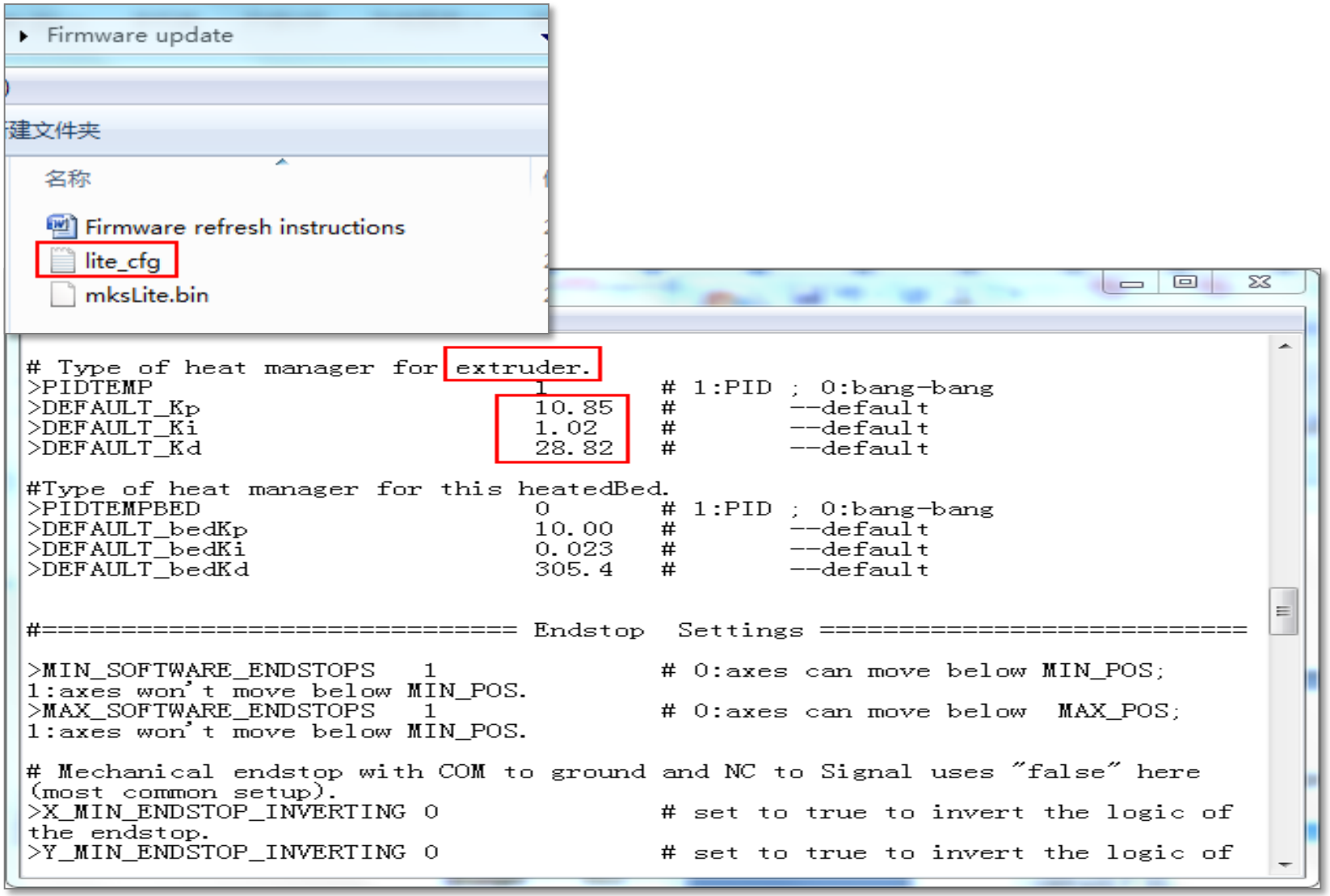
1. please turn off the printer power,
2. reconnect the USB connection,
3. and then turn on the printer power switch



2 Update the firmware file in lite_cfg.txt Type of heat manager for extruder. **Kp KI Kd**

Click to see how to modify the updated PID value in Lite——cfg.txt file

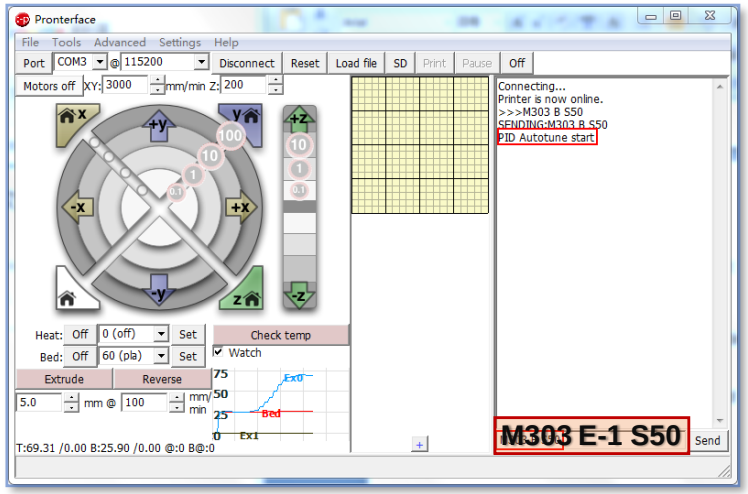
Write the **Extruder PID** parameter to the following part of the "lite_cfg.txt" file.



Hot bed PID adjustment method:

TOP

Send the command : M303 E-1 S50



Reference Hot bed :
PLA- 50 °C M303 E-1 C8 S50
ABS-80 °C M303 E-1 C8 S80

- E-1 Hot bed
- C8 Number of Detection frequency
- S50 Is the target temperature of the hot bed

PID Autotune failed! Temperature too high

Please check the temperature protection setting in the firmware

When the connection is wrong,

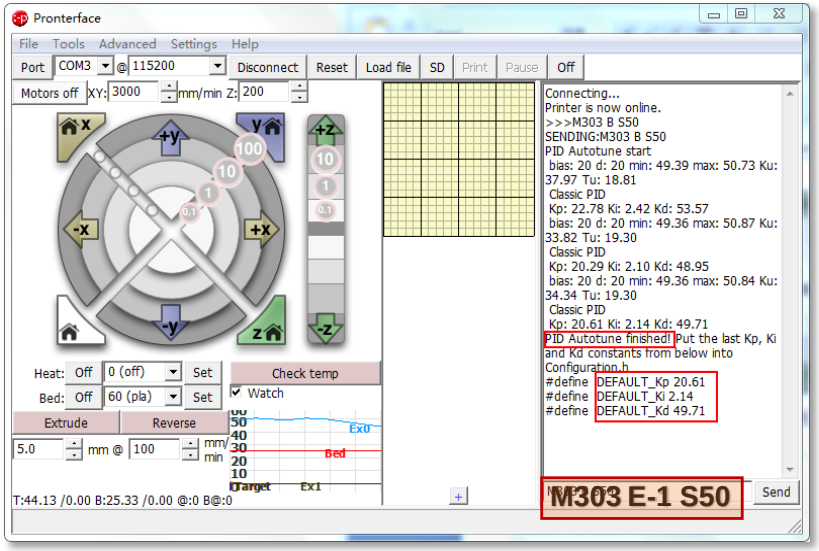
1. please turn off the printer power,
2. reconnect the USB connection,
3. and then turn on the printer power switch

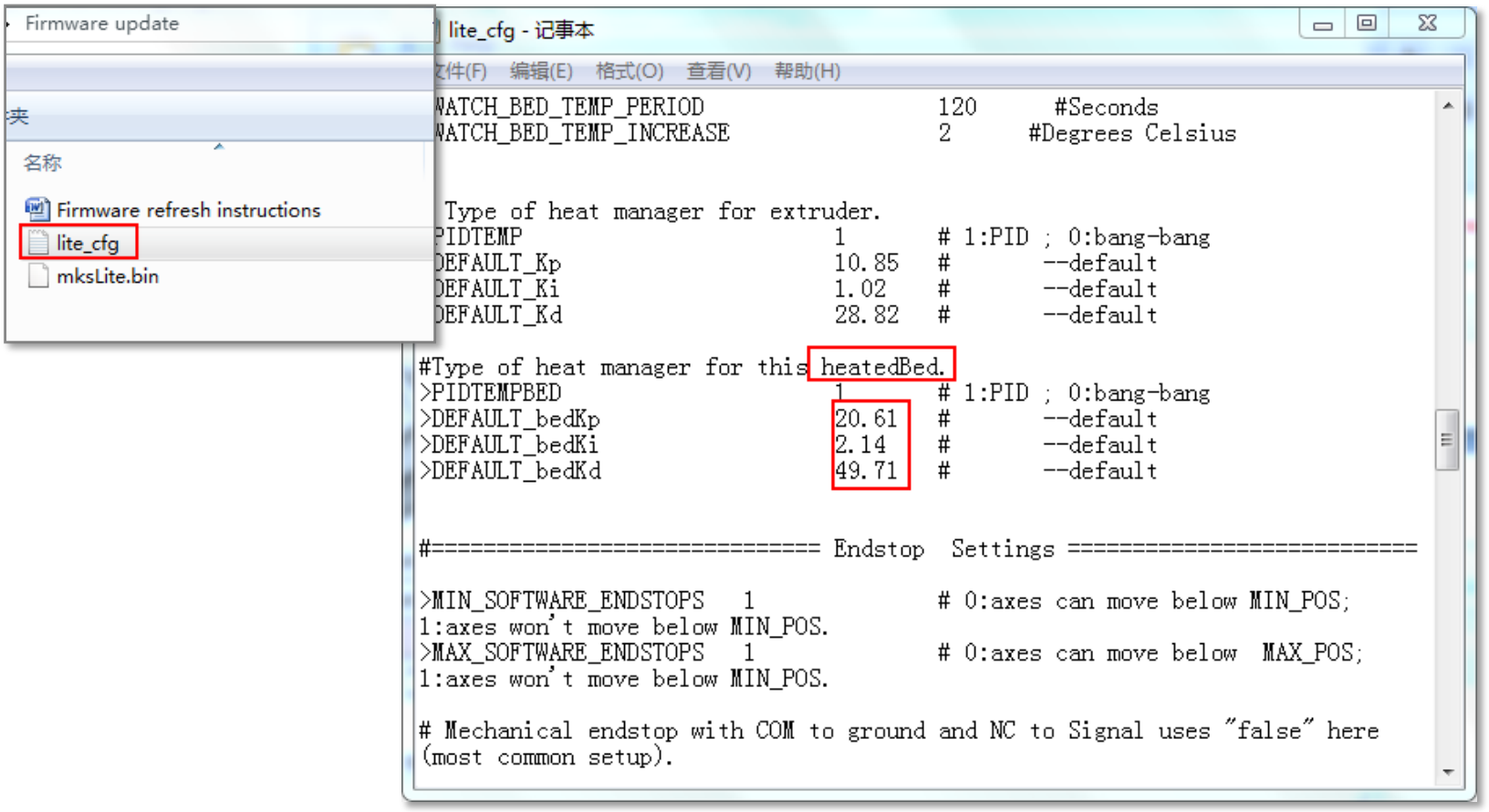
the hot bed has been set in the firmware not higher than 80 ° C. Hot-bed magnetic stickers are not recommended for long-time work above 80 ° C.

If 110 ℃ is needed, please modify the maximum temperature of the firmware hot bed.

```
#============================== Thermal Settings ====
>EXTRUDE_MINTEMP        170
>HEATER_0_MAXTEMP       250
>BED_MAXTEMP            80
```

Click to see how to modify the updated NEW PID value in Lite——cfg.txt file





Congratulations
Set up successfully

MY3D DIYMARIA

Any questions please contact us

my3dltd@163.com https://github.com/my3dltd/F1-MKS-V1.1-PID-SET

https://diymaria.aliexpress.com/store/2092087

Motor direction and motor current modification

TOP

If you modify the rotation direction, you can directly modify it to 0-1 or 1-0

```
#============================== Stepper Motor Settings ==============================

#Set stepper current
>CURRENT_VREF_XY          1200      #Default motor current for XY in mA,  range (0~1500)
>CURRENT_VREF_Z           1200      #Default motor current for Z  in mA,  range (0~1500)
>CURRENT_VREF_E           1500      #Default motor current for E  in mA,  range (0~1500)

#Invert the stepper direction.
>INVERT_X_DIR             0          #If you modify the rotation direction, you can directly modify it to 0-1 or 1-0
>INVERT_Y_DIR             1          #If you modify the rotation direction, you can directly modify it to 0-1 or 1-0
>INVERT_Z_DIR             0         #If you modify the rotation direction, you can directly modify it to 0-1 or 1-0
>INVERT_E0_DIR            0          #If you modify the rotation direction, you can directly modify it to 0-1 or 1-0
```

View firmware update method

Download address of firmware
(after decompression-do not re-name lite_cfg.txt mksLite.bin file name)

https://github.com/my3dltd/F1-MKS-V1.1-Firmware

https://github.com/my3dltd/F1-MSK-V1.1-WIFI