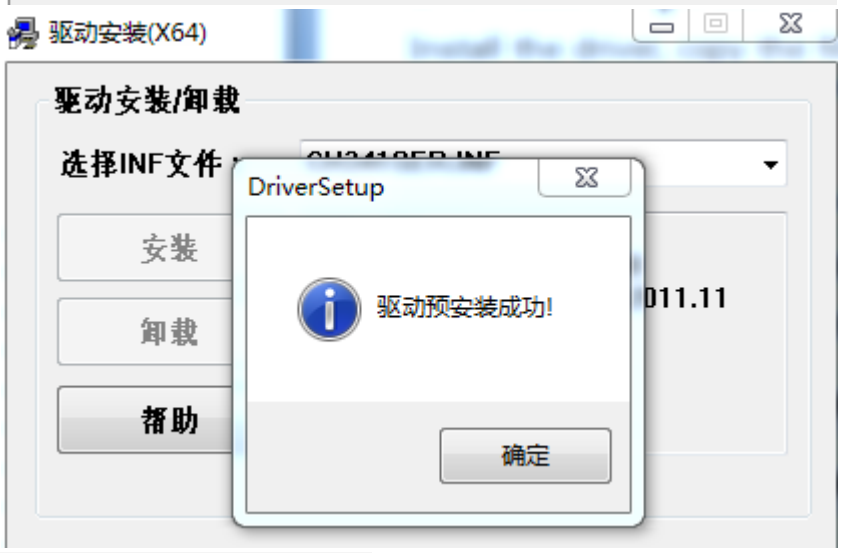
# Debug and Print

# catalogue

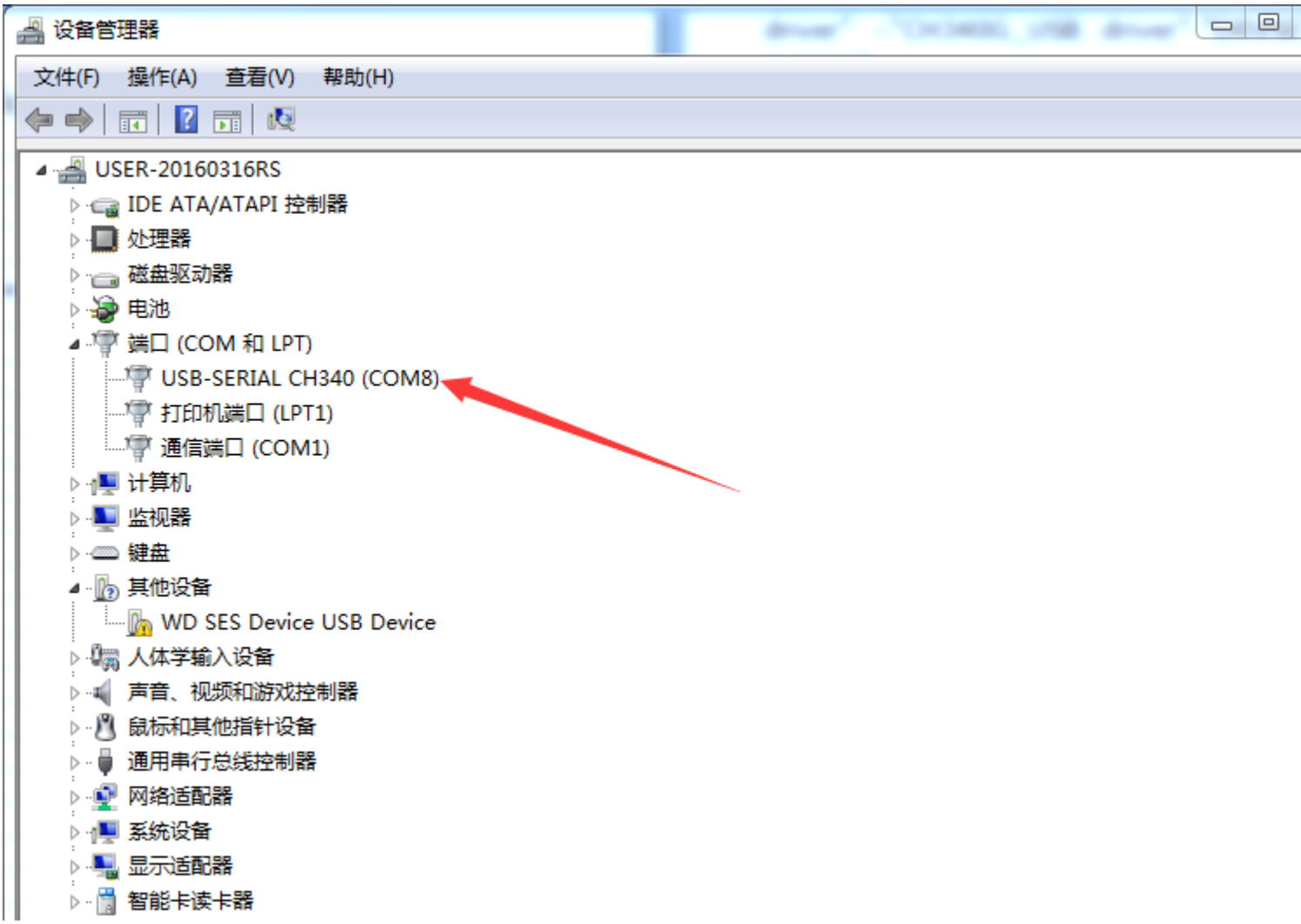
# 1 Connect printer to PC

important remind,the power and USB need connect to borad at the same time.
if not connect the power, will not find the hardware.

Install the driver. copy the file in the sd card to PC. open the file ”CH340G_USB toTTL driver”–“CH340G_USB driver”-“DRVSETUP64”(64-bit system) or “SETUP”*(64-bit system).


Check Device Manager, will find the hardware




If the PC can not find the hardware.pls check out the file “Solve streamline Version Windows 7,Can not install driver issue”.do as the file show.

# 2 Control the printer by Repetier-host

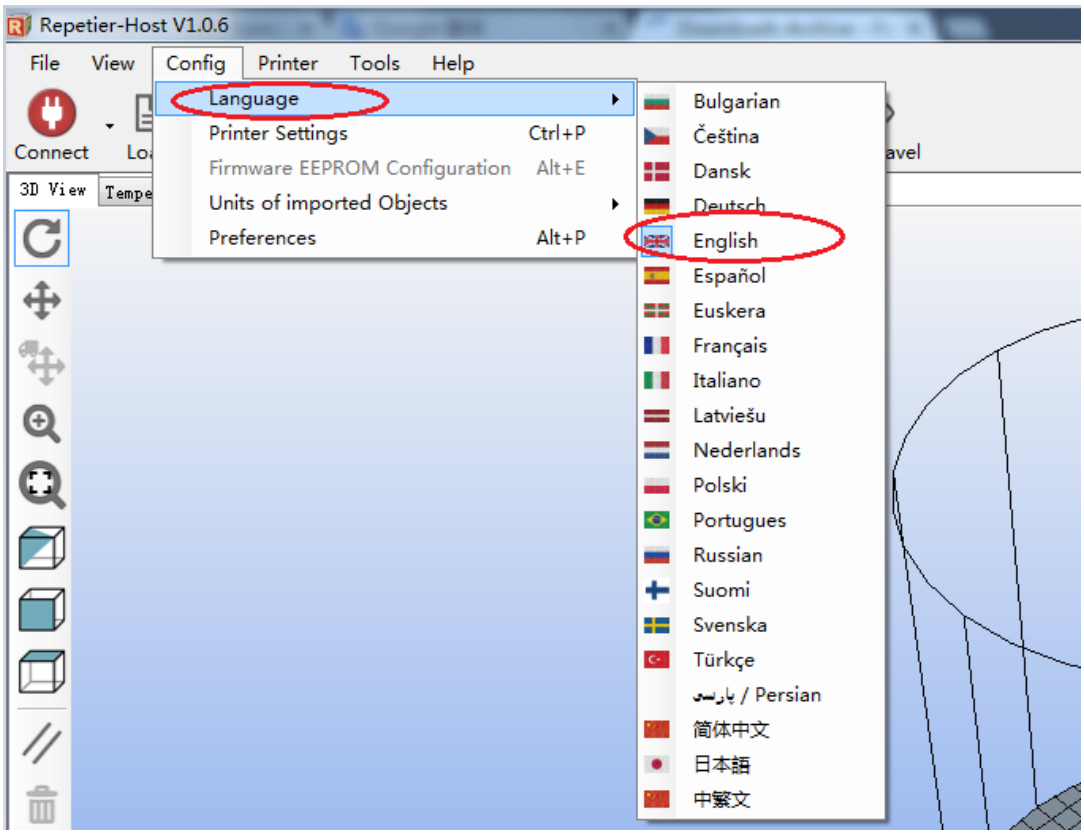
## (1) Software Installation

Install the "software,setupRepetierHost_1_0_6", the software could be download on the link:http://www.repetier.com/download/

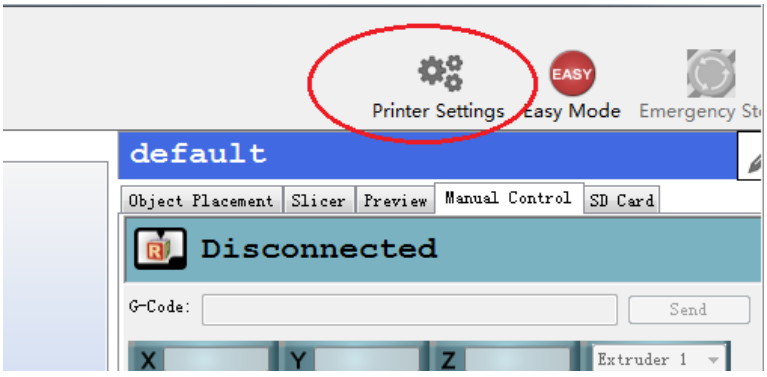
About the more info about the Repetire, pls go the the link : http://www.repetier.com/documentation/repetier-host/

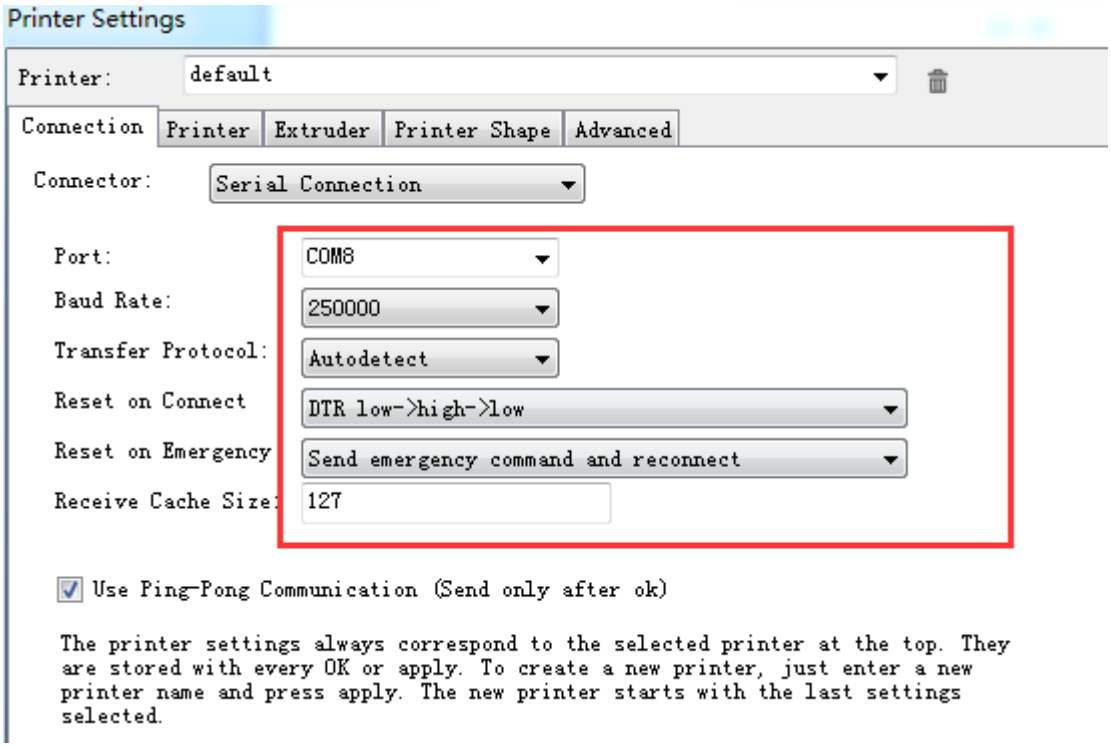
## (2) Language Settings

Set the language,Config-Language-choose the suit language.

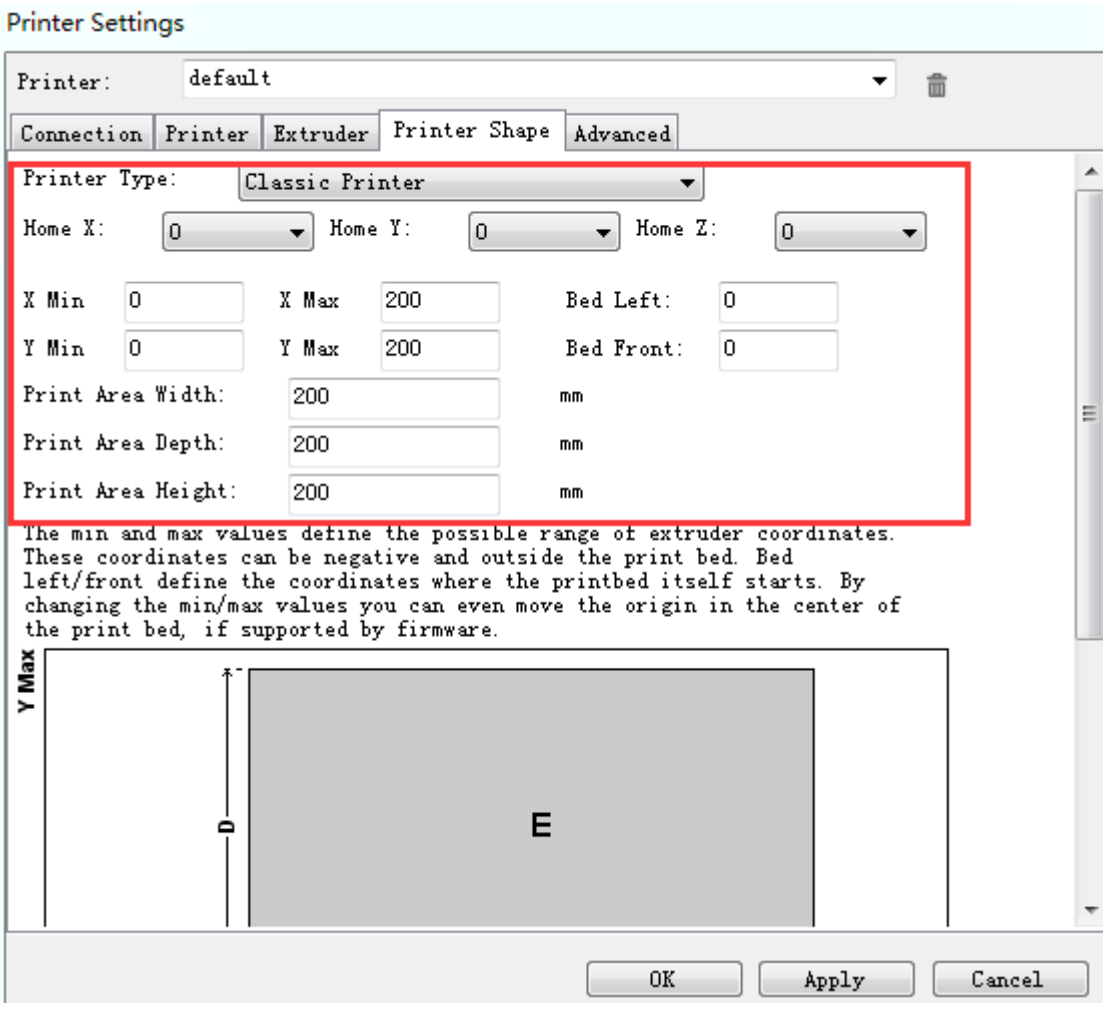



## (3) Printer settings

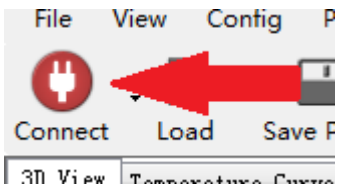




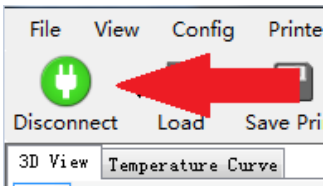

in the printer shape, setting as the follow



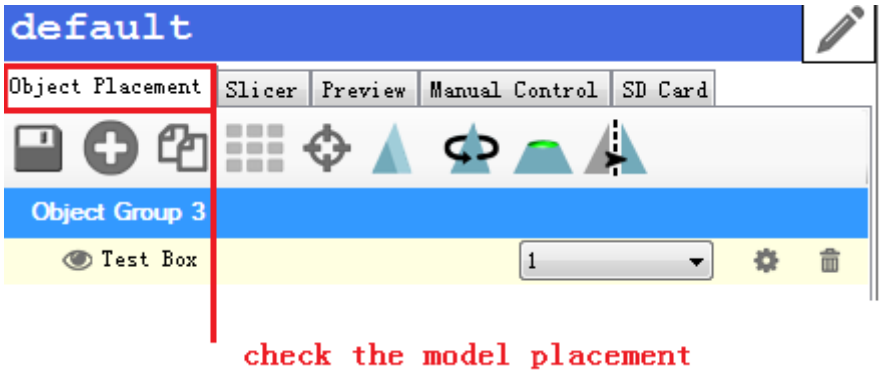
## (4) Connect the printer

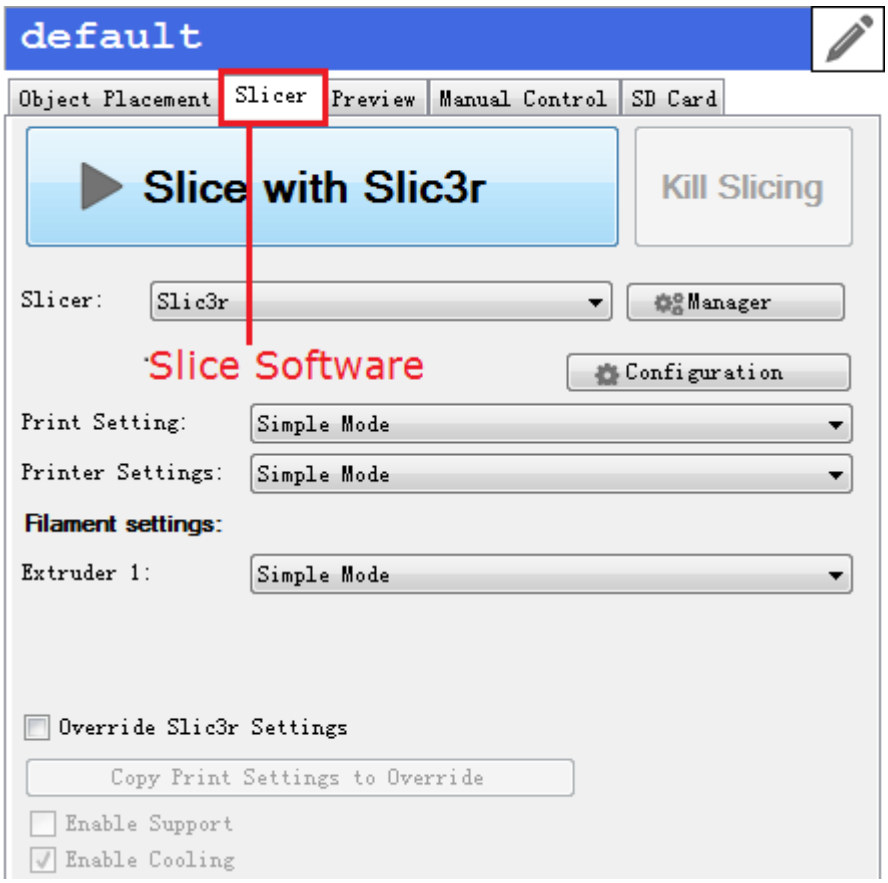


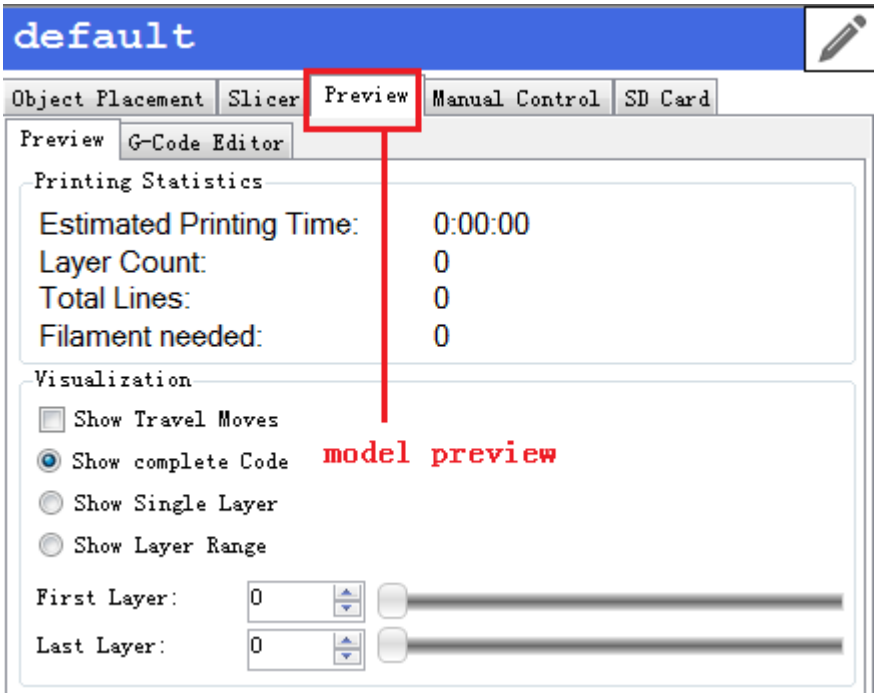

afer connect

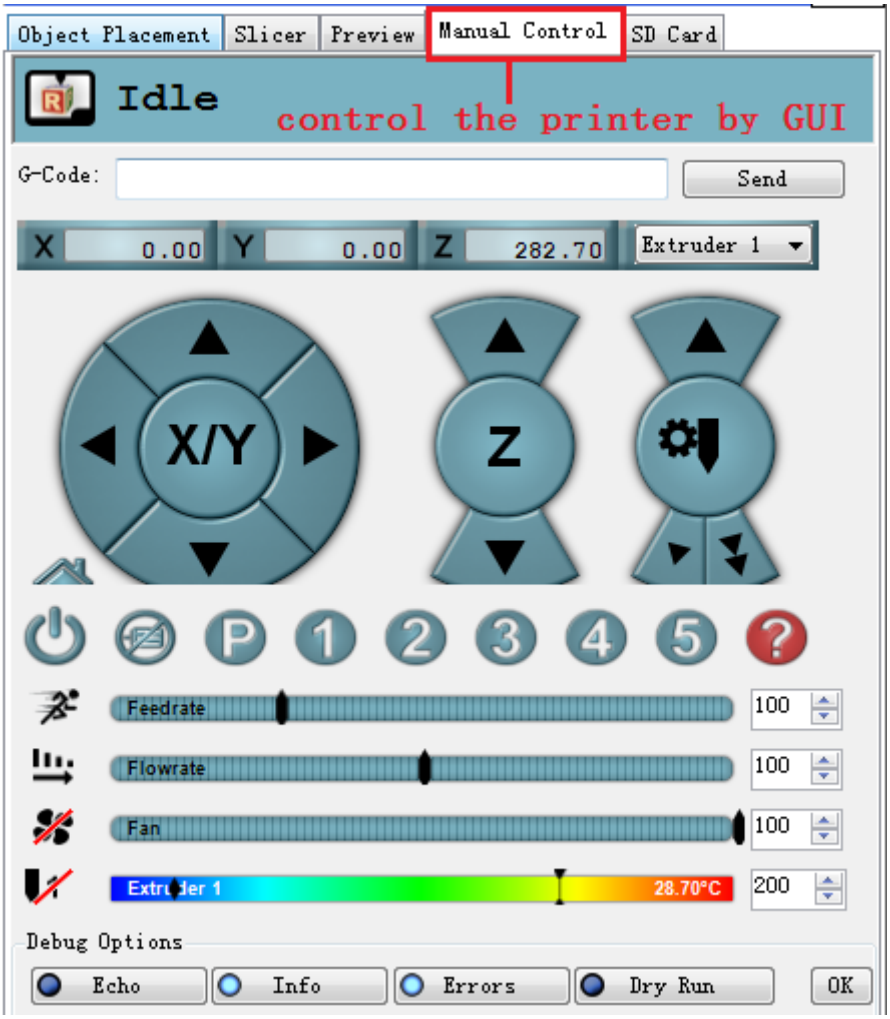



## (5) Panel Introduction

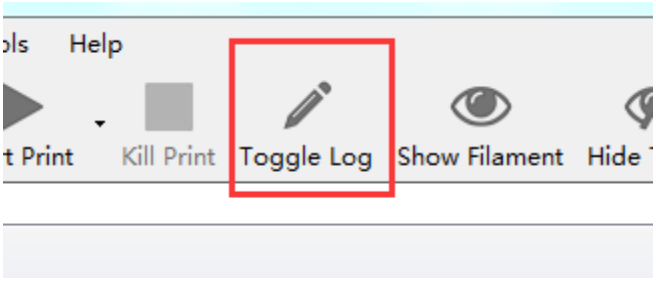


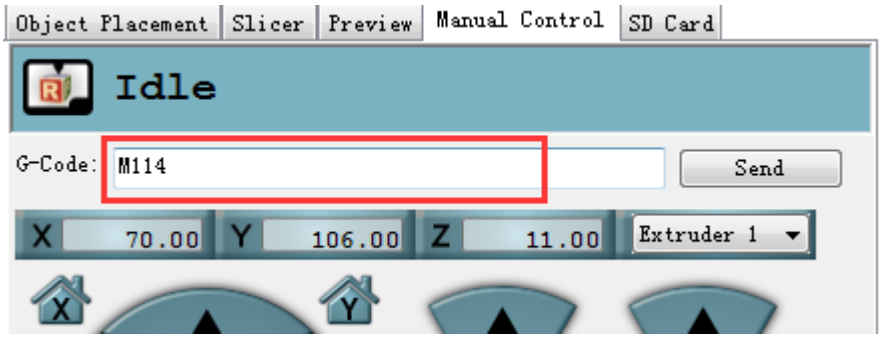



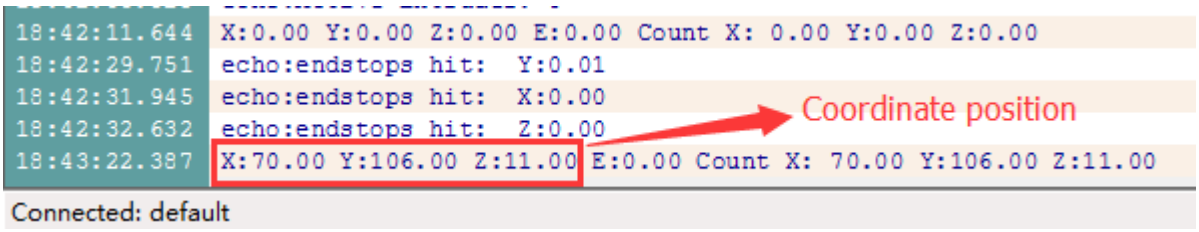


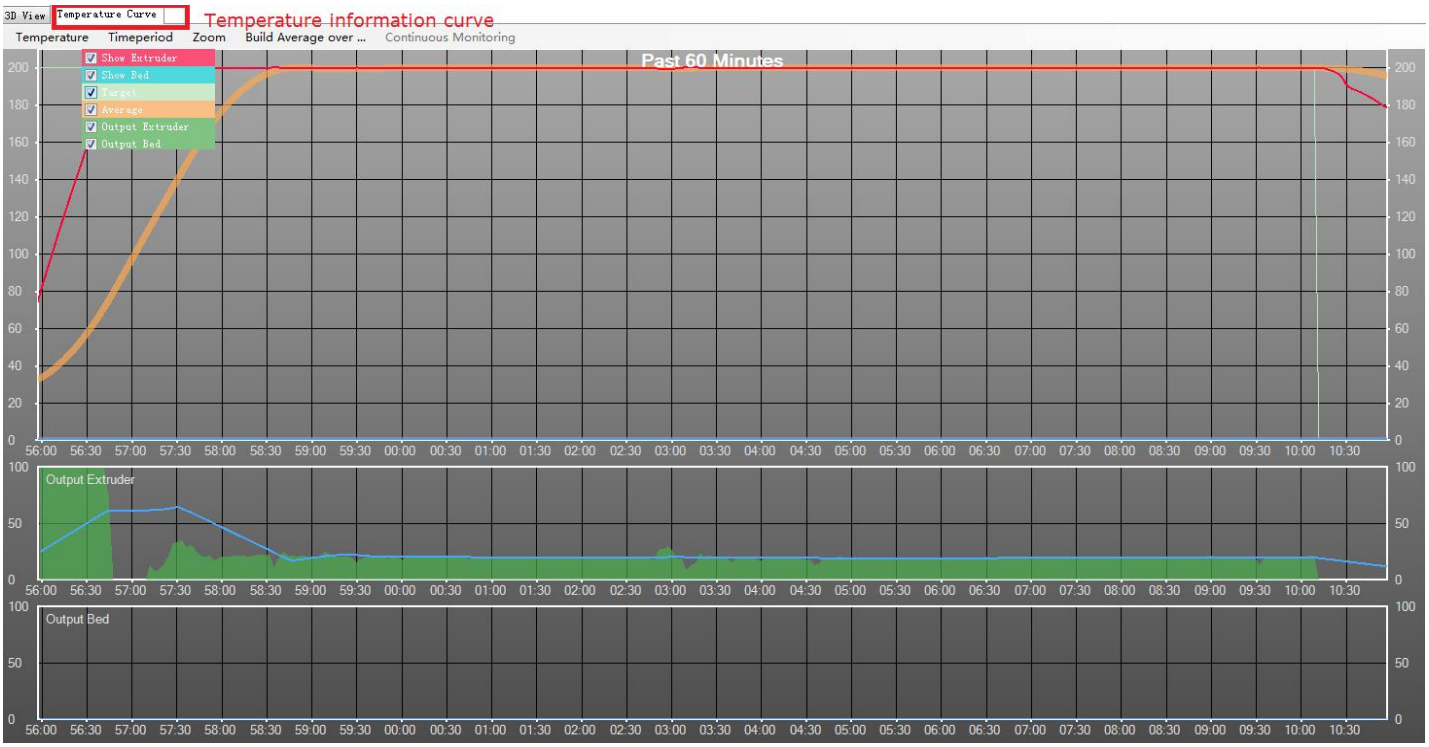



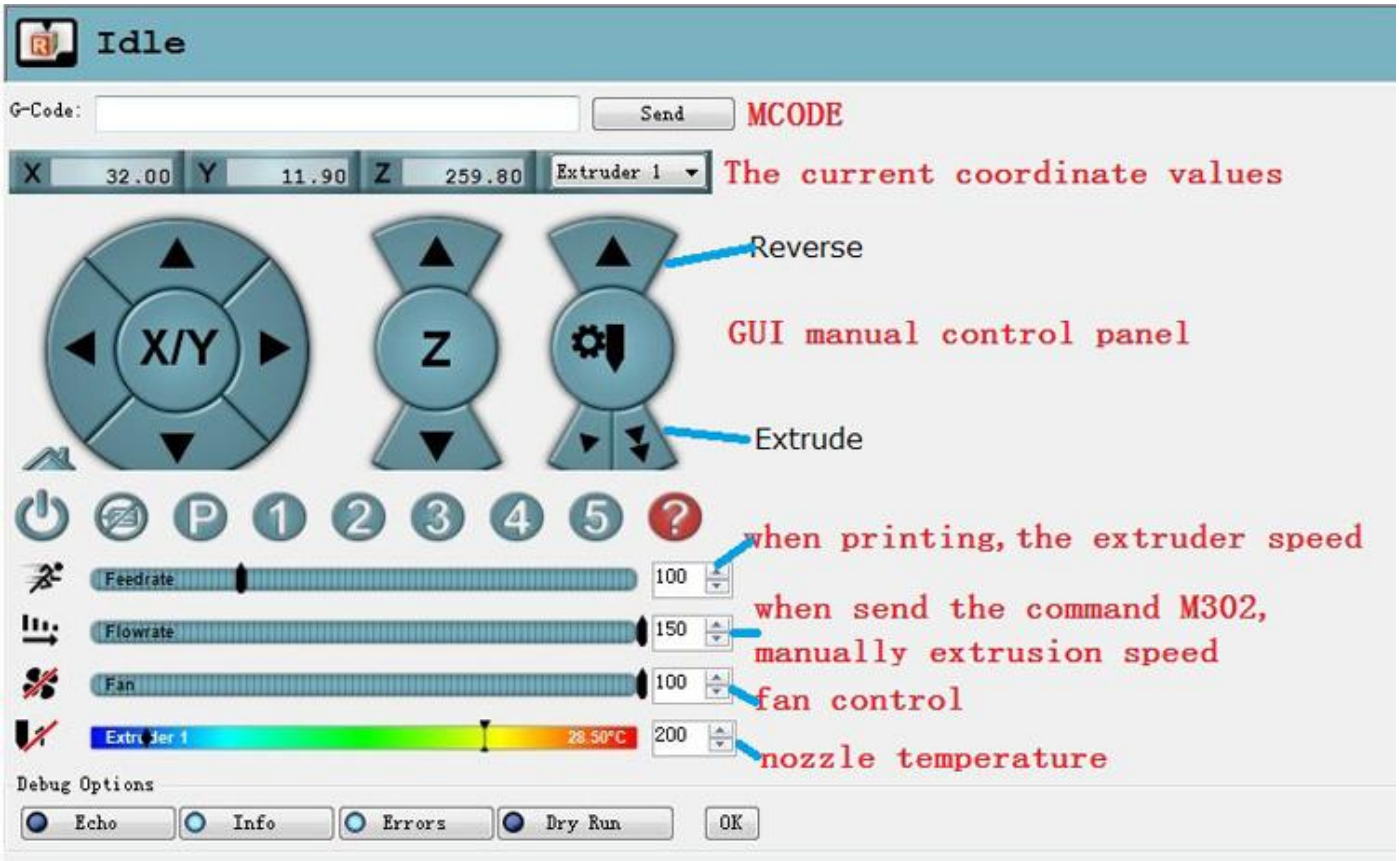

Click the "Toggle Log", in the Repetire bottom,could appear the status info or not.e.g send M114,could appear current coordinate information.


ols Help
t Print
Kill Print
Toggle Log
Show Filament
Hide


Object Placement
Slicer
Preview
Manual Control
SD Card
Idle
G-Code:
M114
Send
X
70.00
Y
106.00
Z
11.00
Extruder 1


18:42:11.644 X:0.00 Y:0.00 Z:0.00 E:0.00 Count X: 0.00 Y:0.00 Z:0.00
18:42:29.751 echo:endstops hit: Y:0.01
18:42:31.945 echo:endstops hit: X:0.00
18:42:32.632 echo:endstops hit: Z:0.00
18:43:22.387 X:70.00 Y:106.00 Z:11.00 E:0.00 Count X: 70.00 Y:106.00 Z:11.00
Coordinate position
Connected: default


3D View
Temperature Curve
Temperature information curve
Temperature
Timeperiod
Zoom
Build Average over ...
Continuous Monitoring
Past 60 Minutes
Show Extruder
Show Bed
Target
Average
Output Extruder
Output Bed
Output Extruder
Output Bed




Command

G28 go home

G1 X20 Y30 Z60 move nozzle to coordinate x y z(20 30 60)

M114 check the nozzle current coordinate position

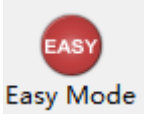
M302 manual control extruder

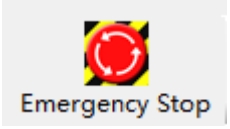
M106 start fan

M 119 check staus of limit switch

M104 turn off temperature

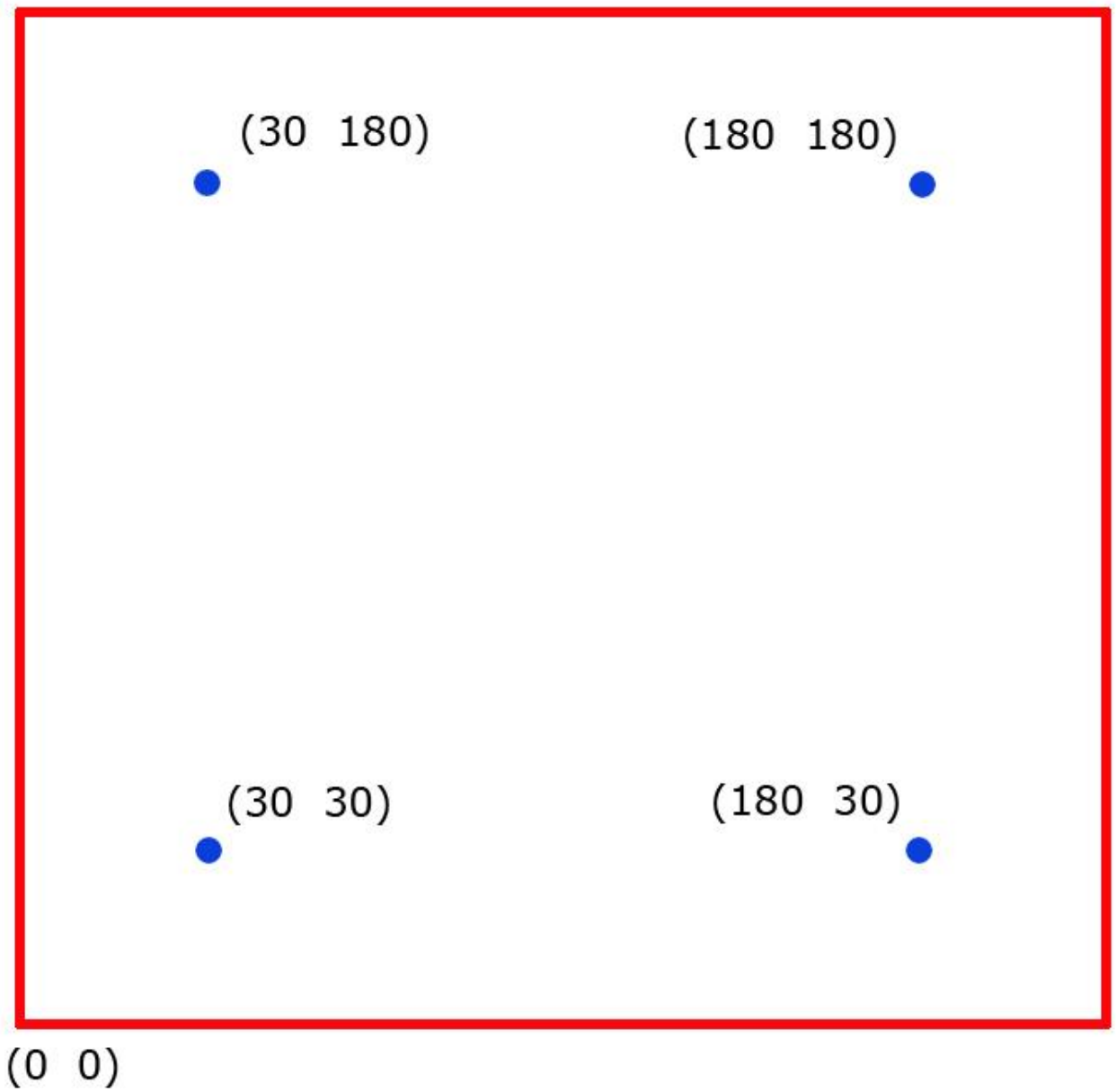
M84 ; disable motors

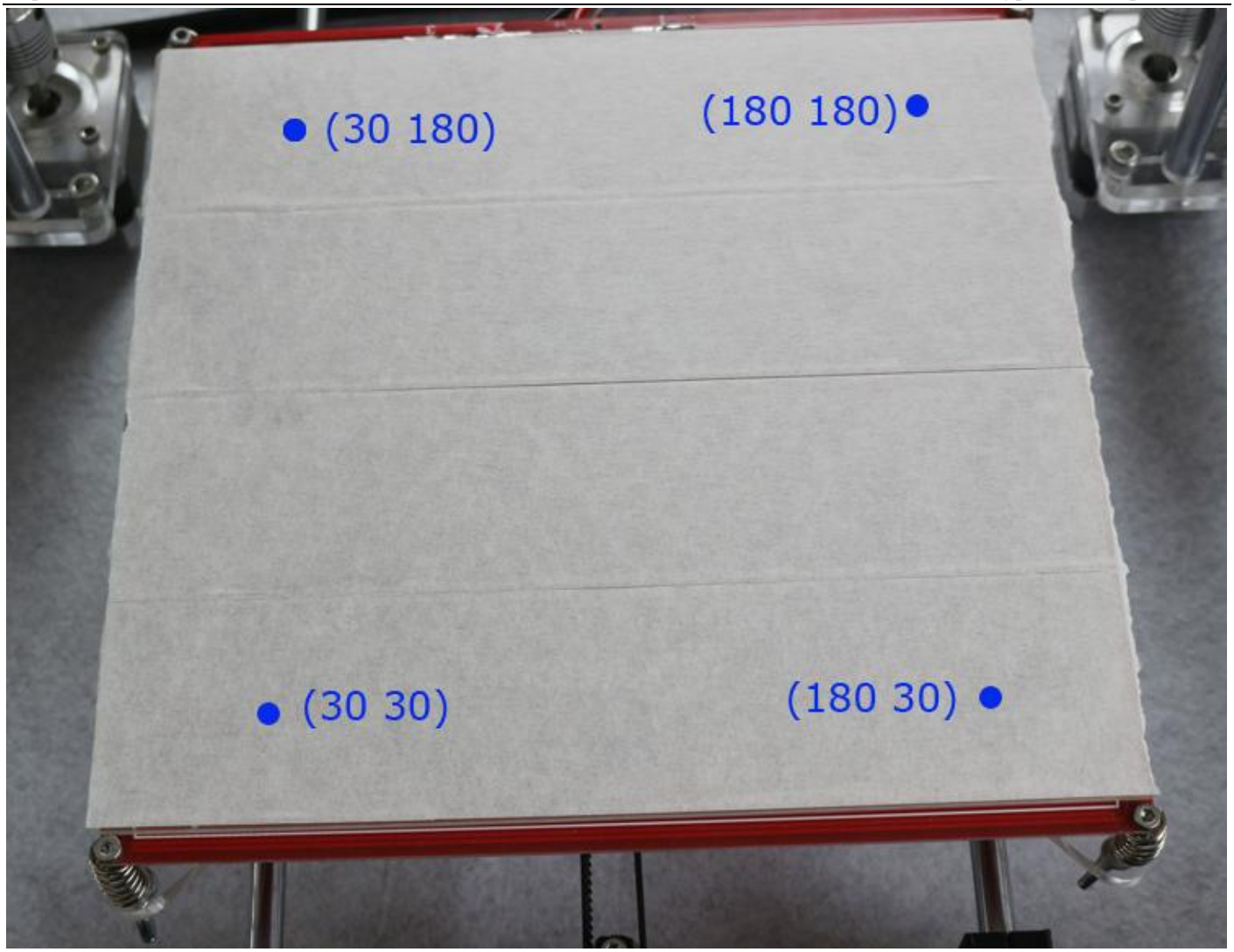
If can not find the G-CODE Enter location, click Easy Mode 

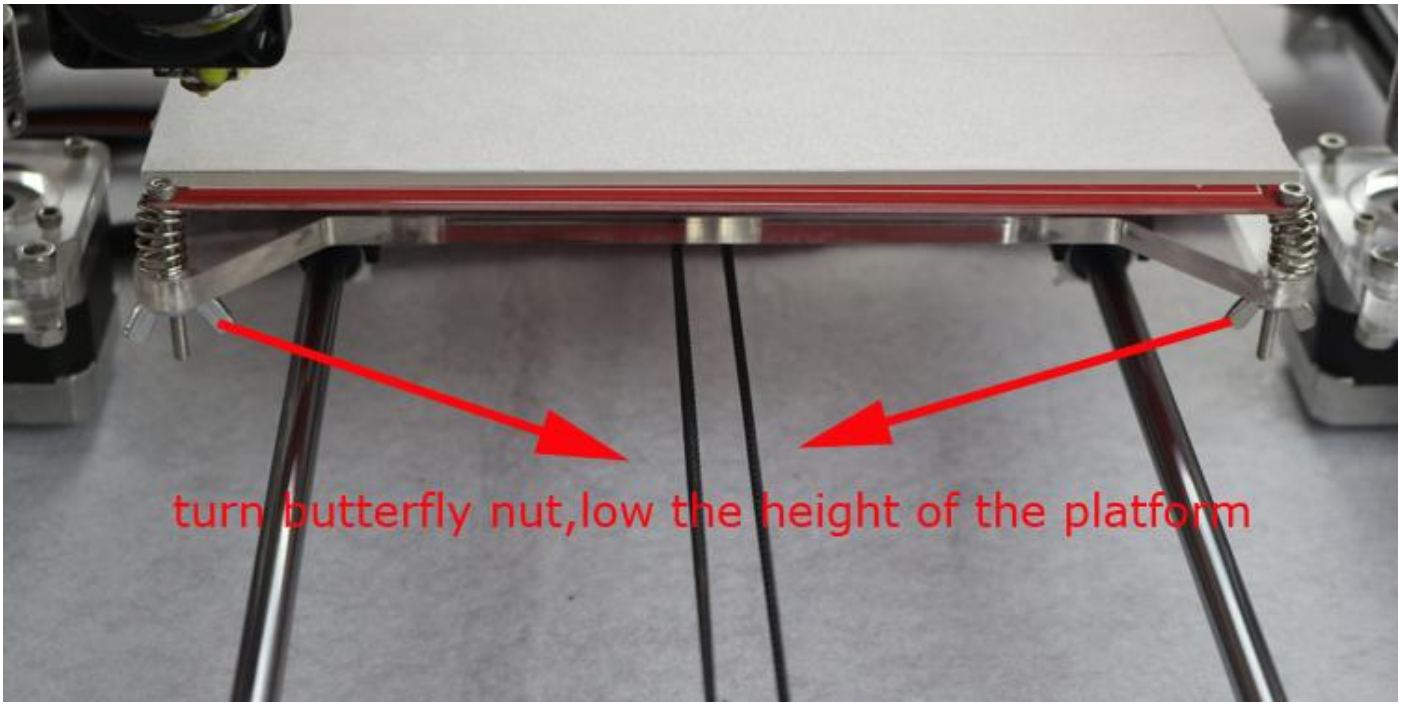

If need urgent parking and close motors, click 

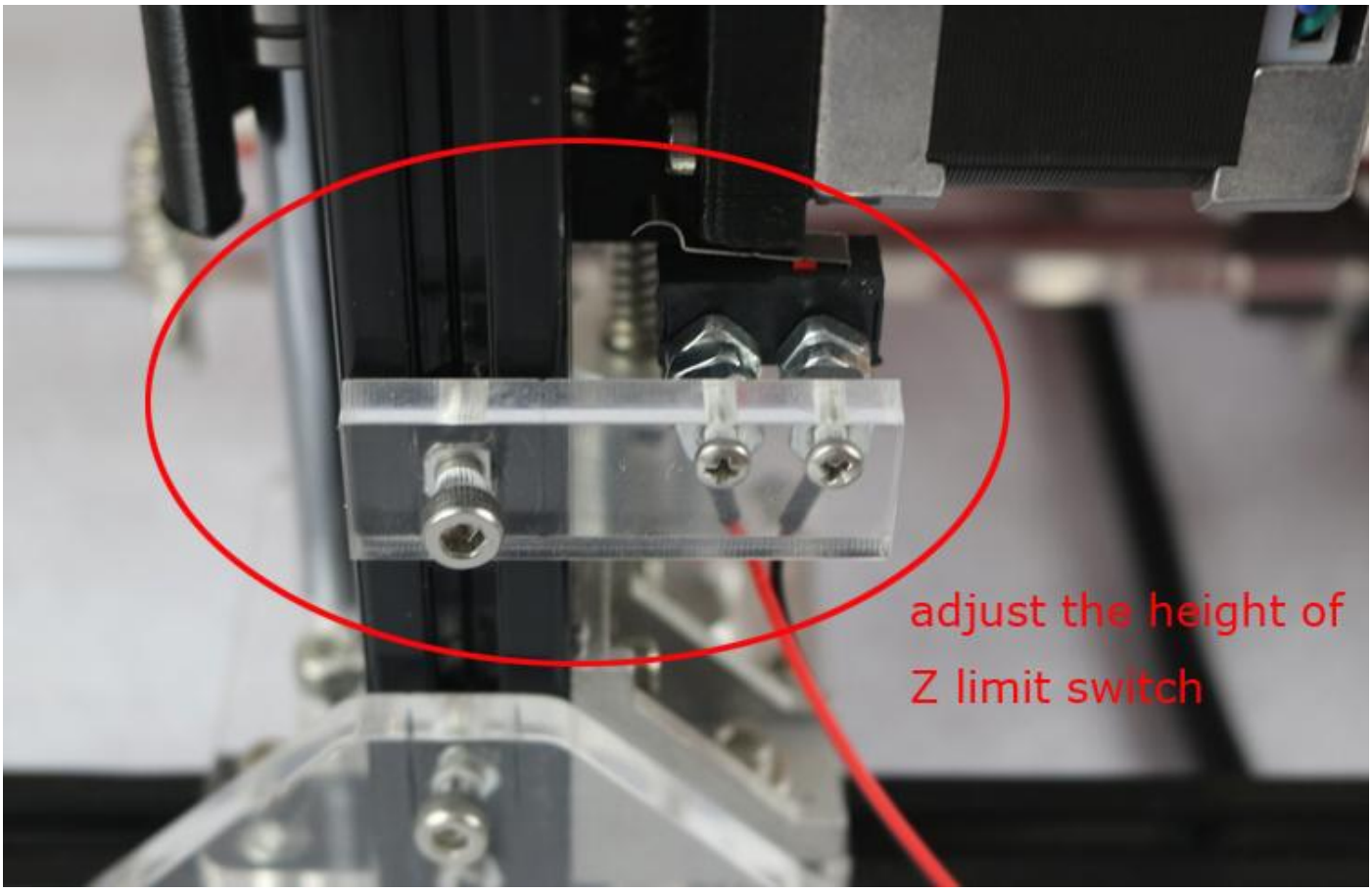
# 3 Calibration

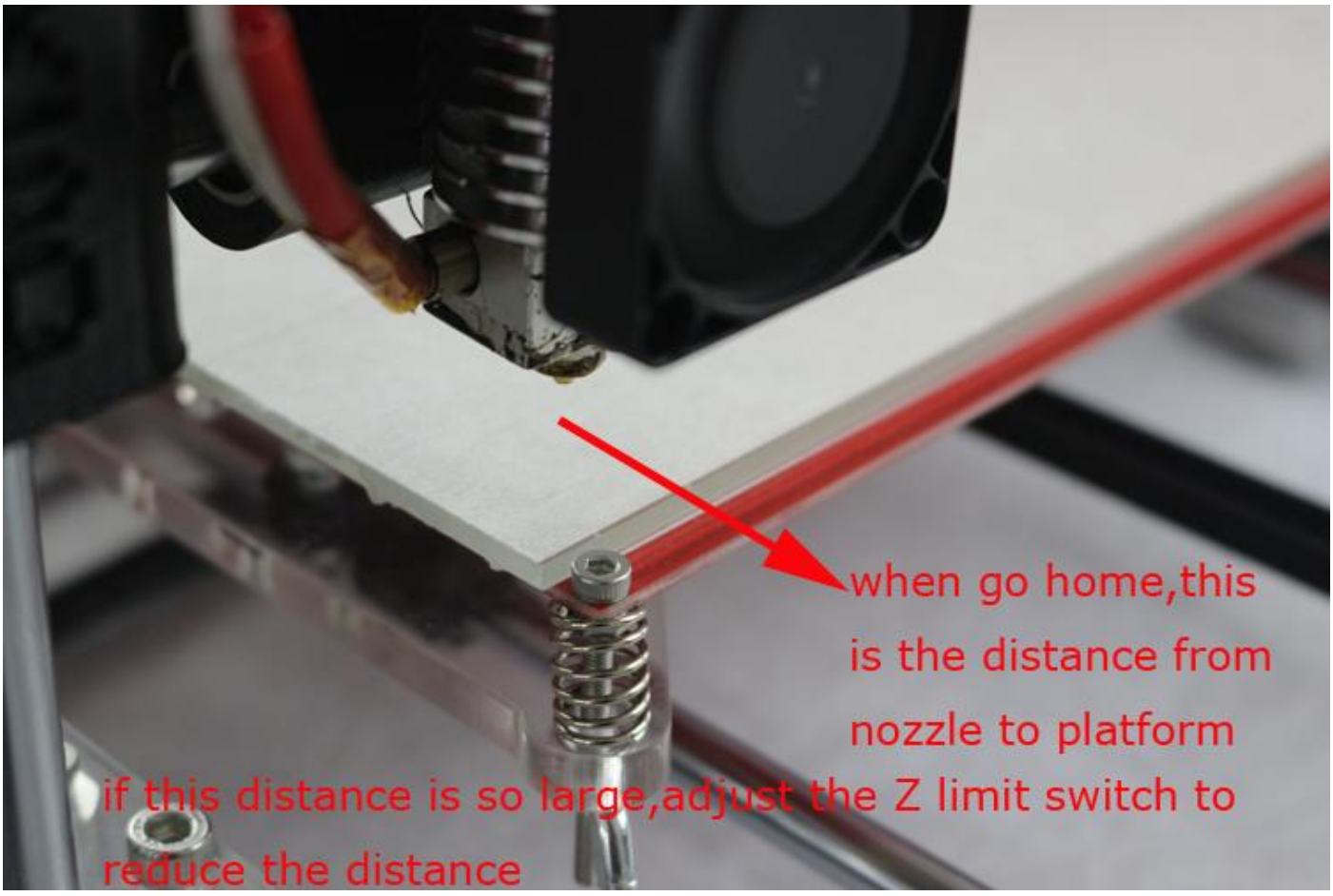
Select 4 points, the 4 points coordinate is (30 30) , (180 30),(180 180),(30 180). Ensure the nozzle to bed distance,this distance could go through one paper.as the pic show.

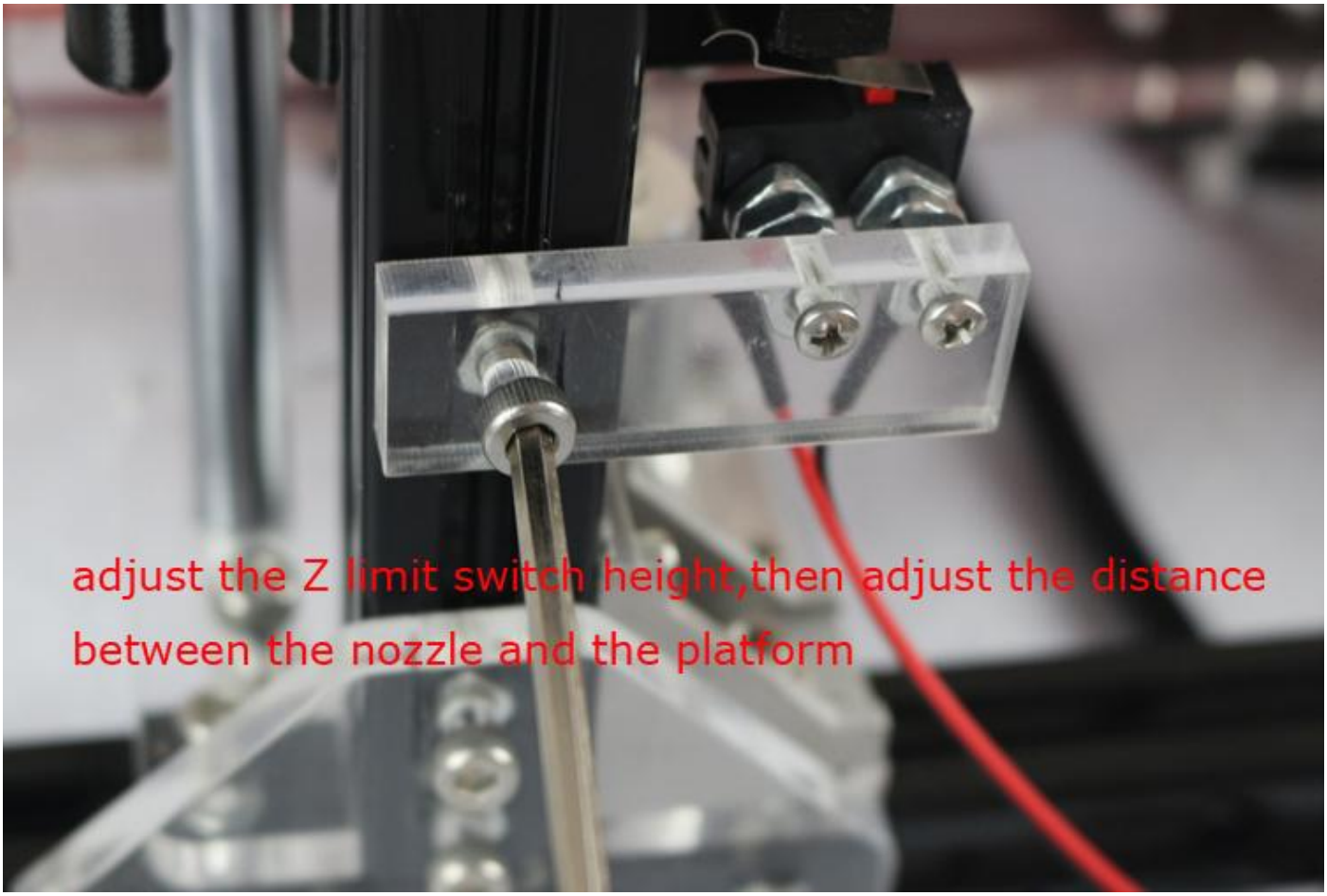


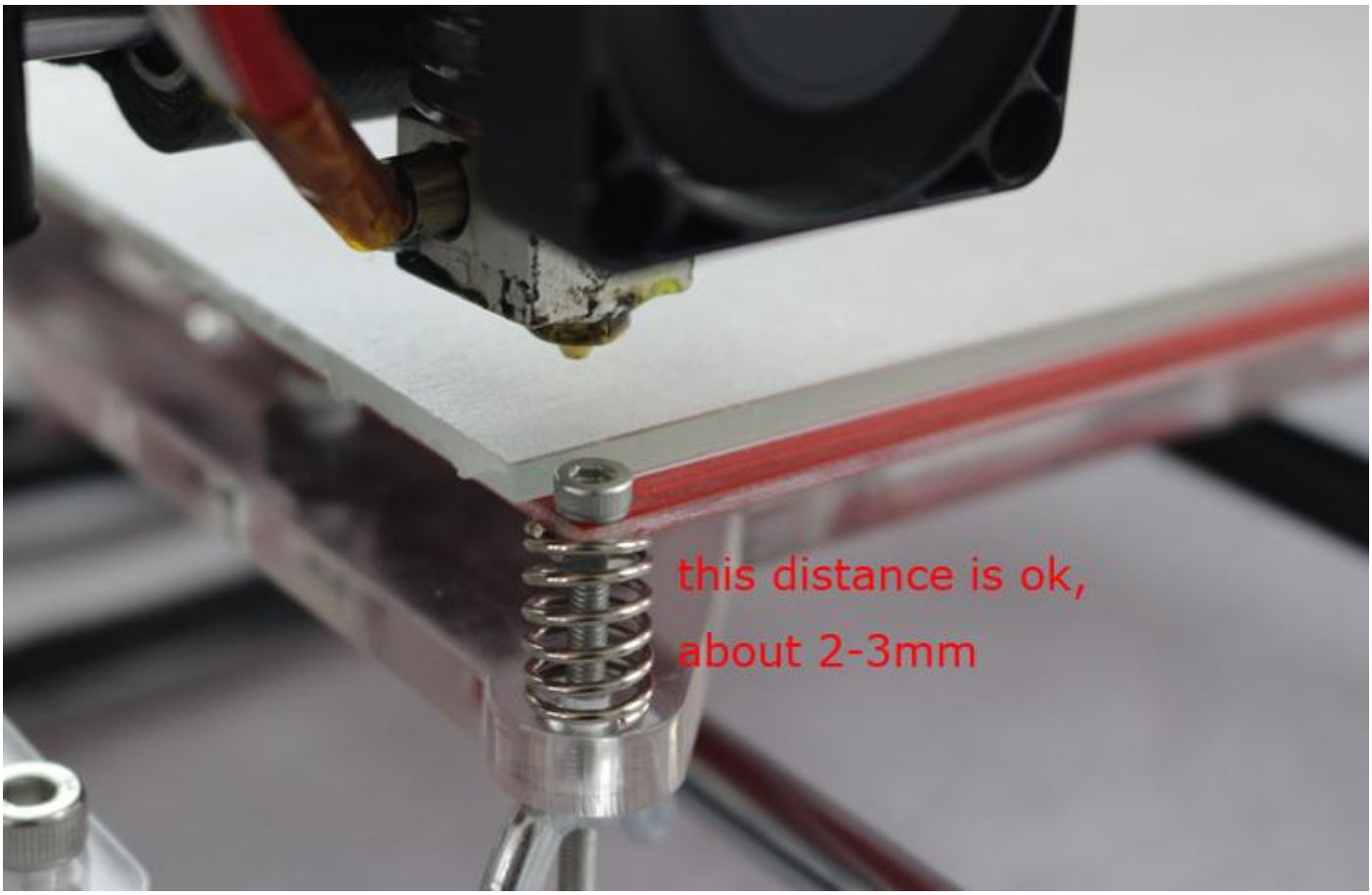

(30 180)
(180 180)
(30 30)
(180 30)


turn butterfly nut,low the height of the platform

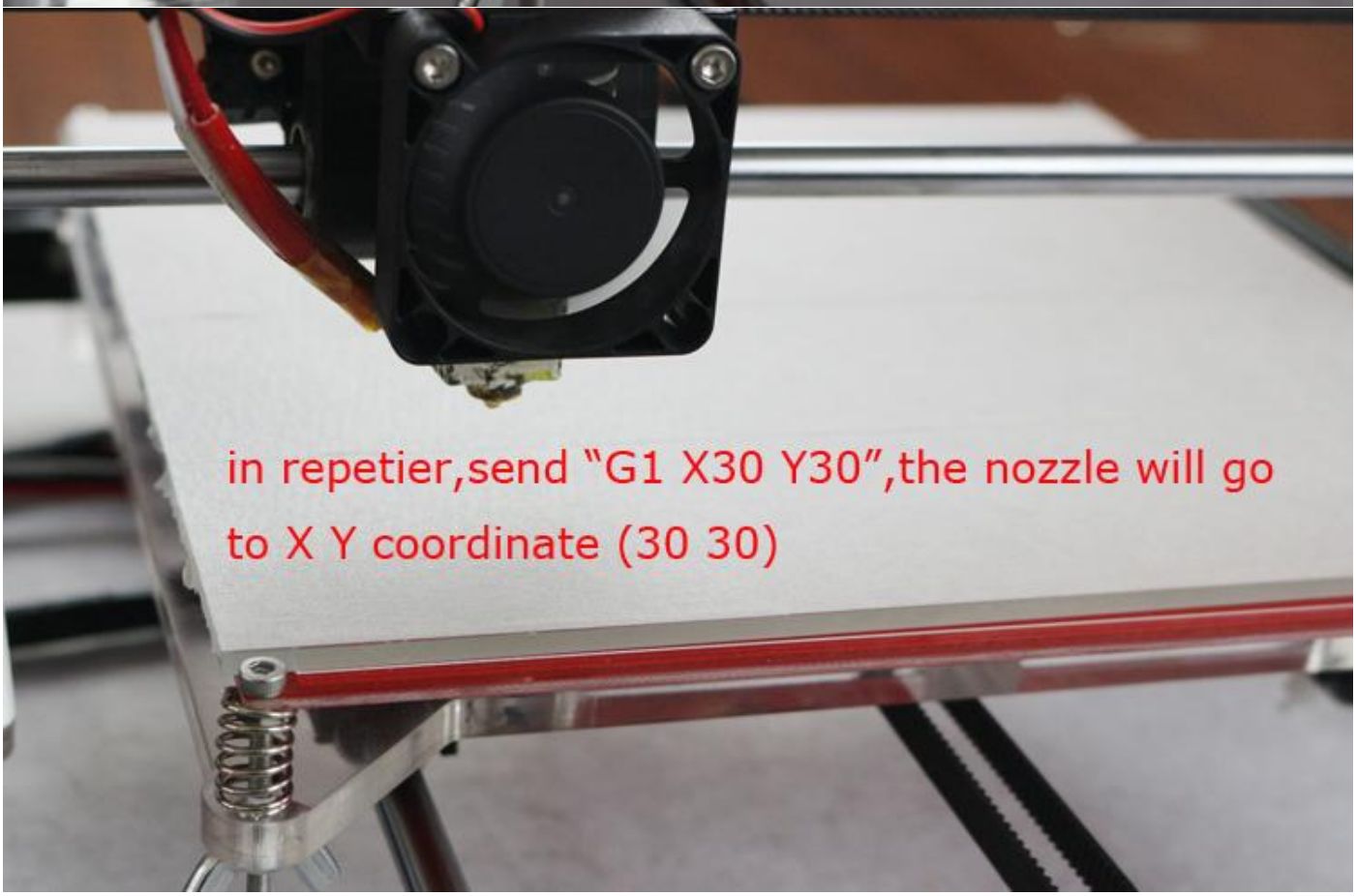

adjust the height of
Z limit switch

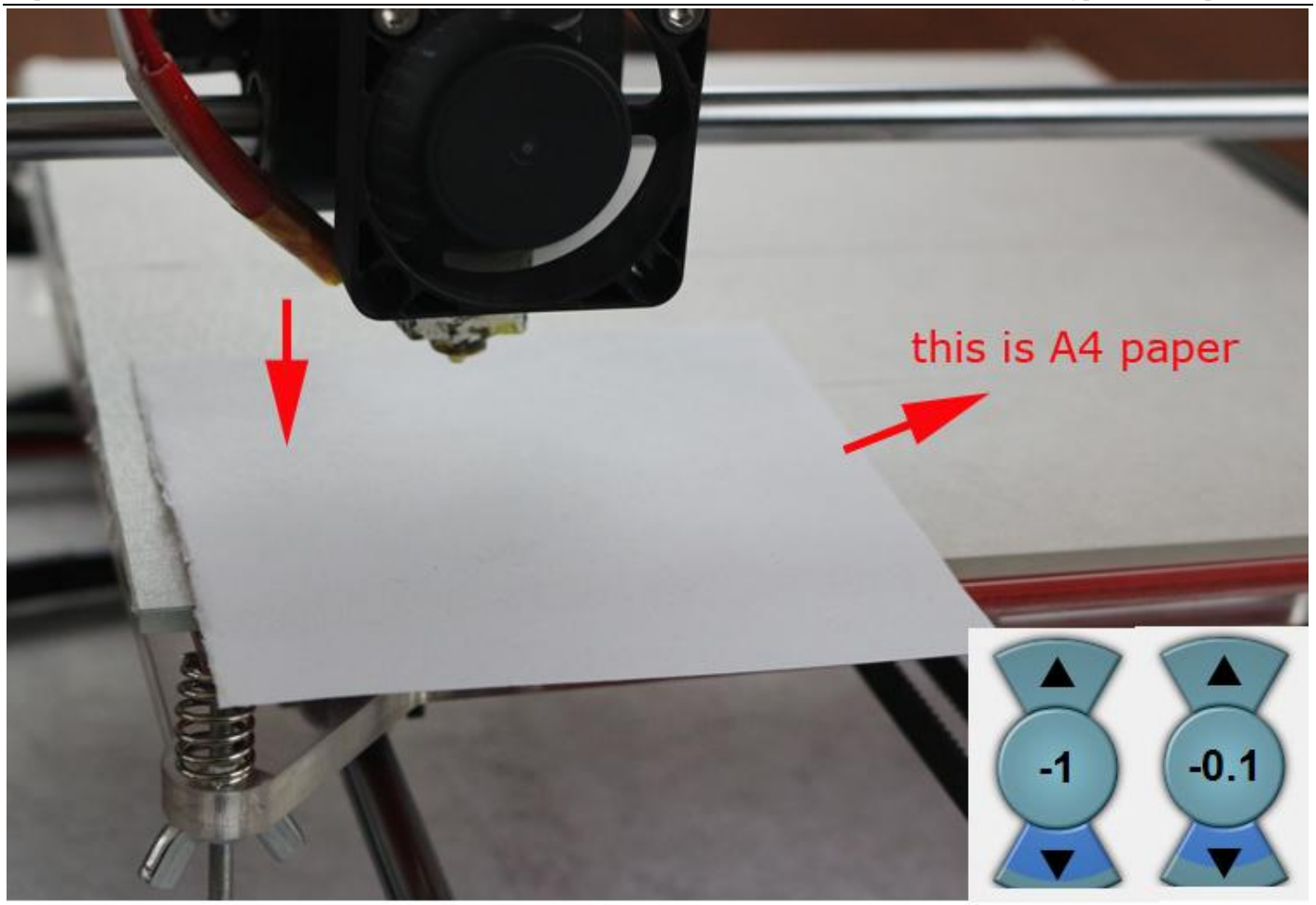

when go home,this
is the distance from
nozzle to platform
if this distance is so large,adjust the Z limit switch to
reduce the distance


adjust the Z limit switch height,then adjust the distance
between the nozzle and the platform


this distance is ok,
about 2-3mm


in the repetier,send code
"G1 Z10",to raise the nozzle
Z10 mean raise 10mm


in repetier,send "G1 X30 Y30",the nozzle will go
to X Y coordinate (30 30)

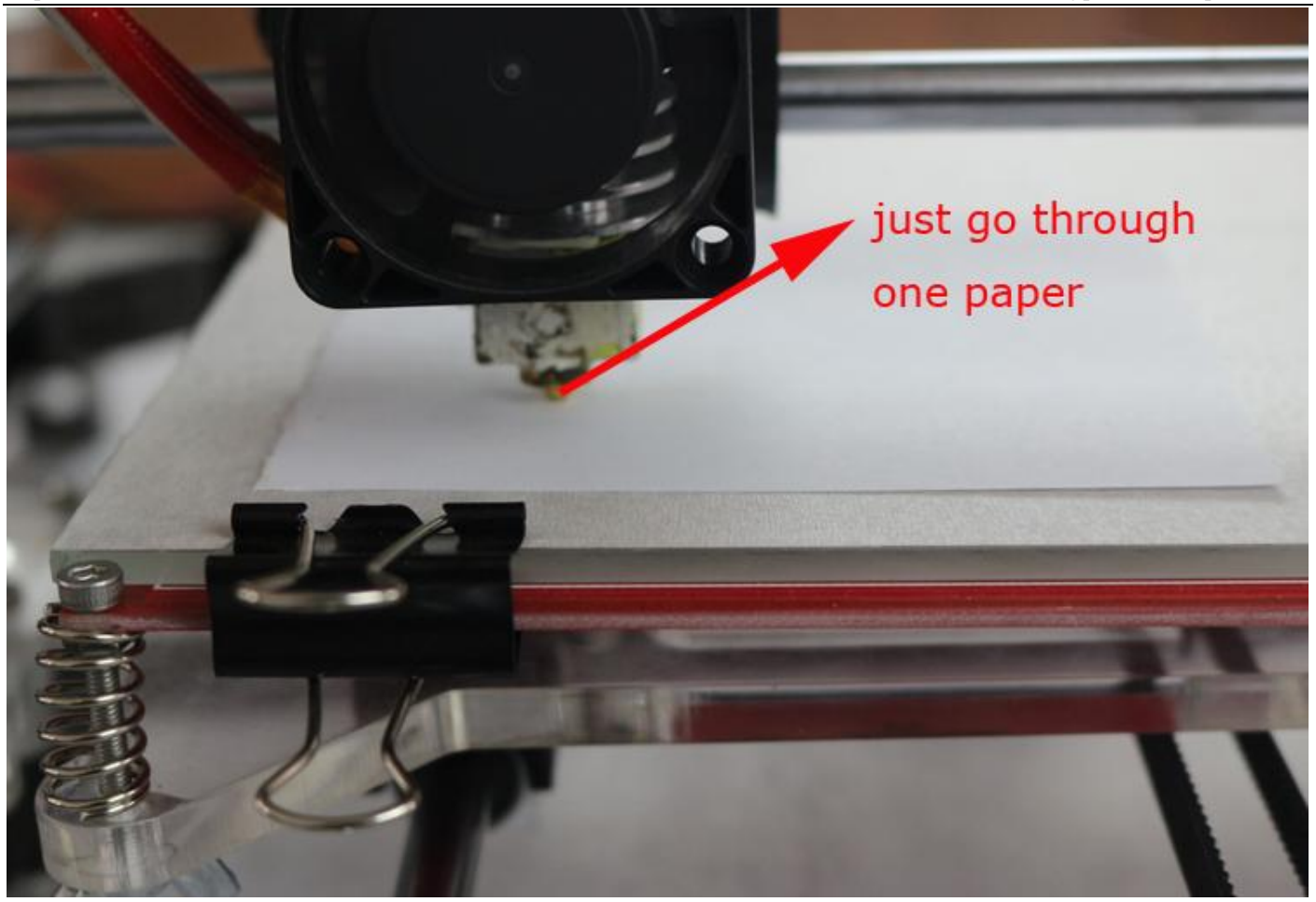


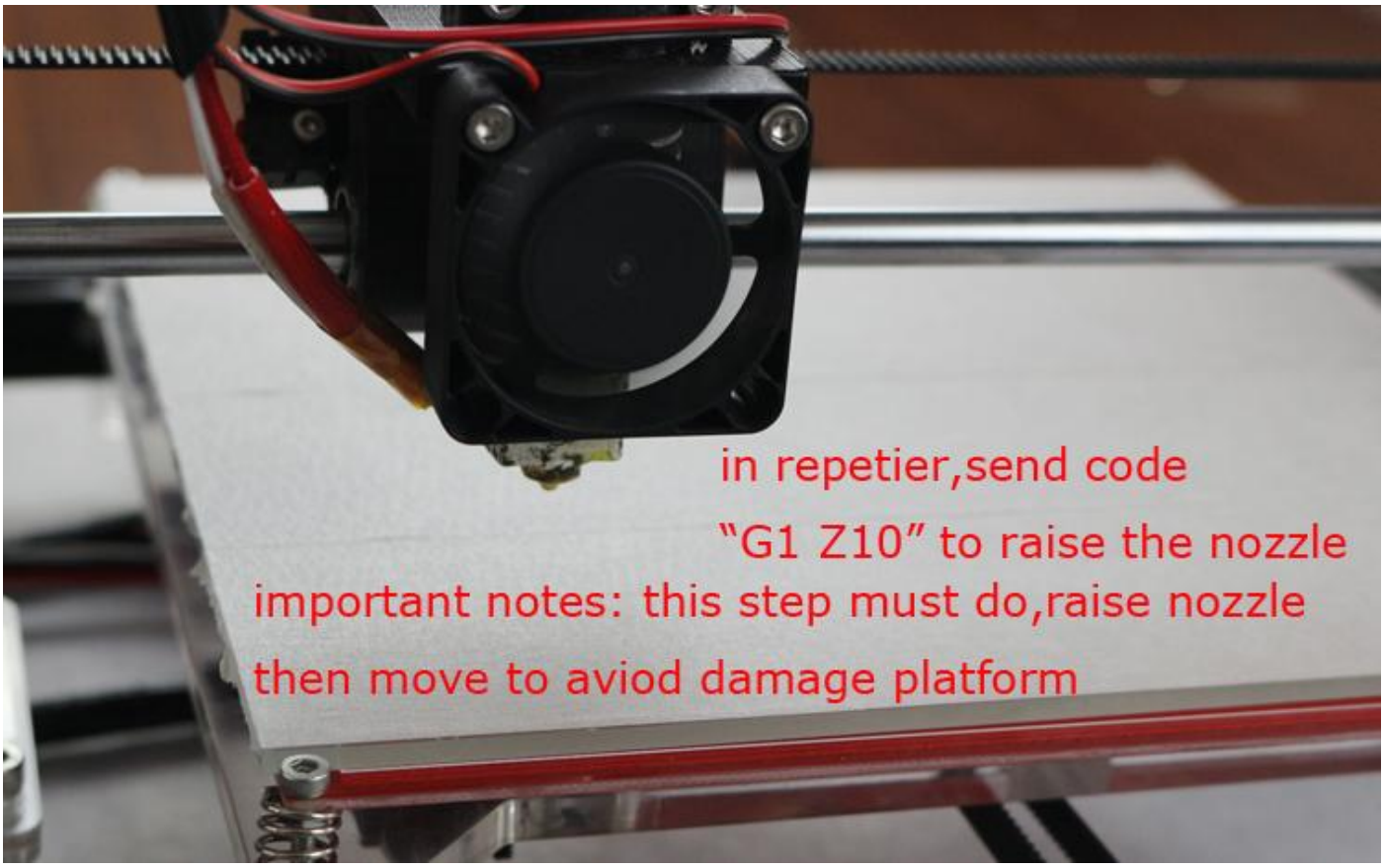

1,put one paper one the platform

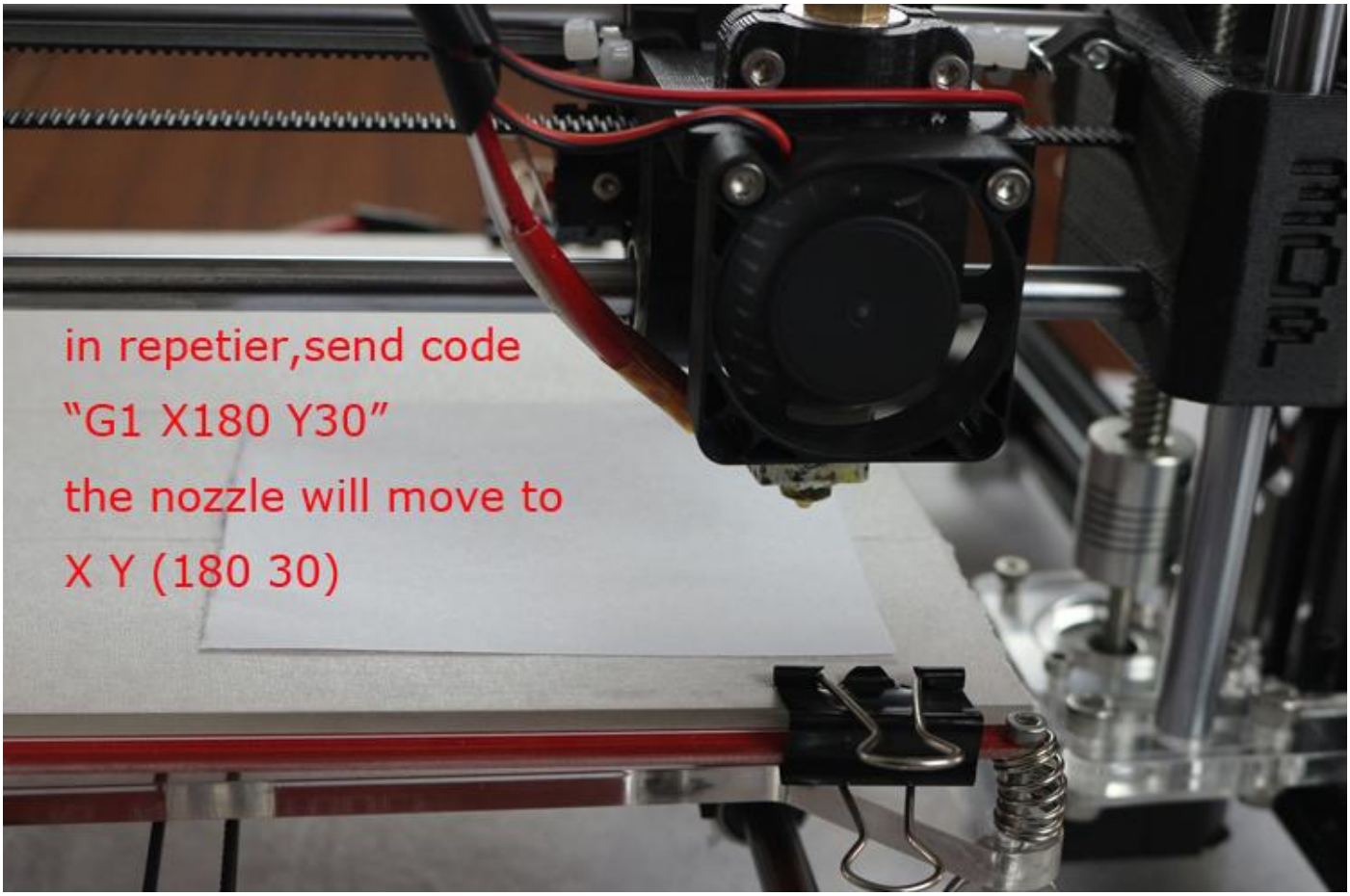
2,lower nozzle height via repetier,1mm/step, or 0.1mm/step

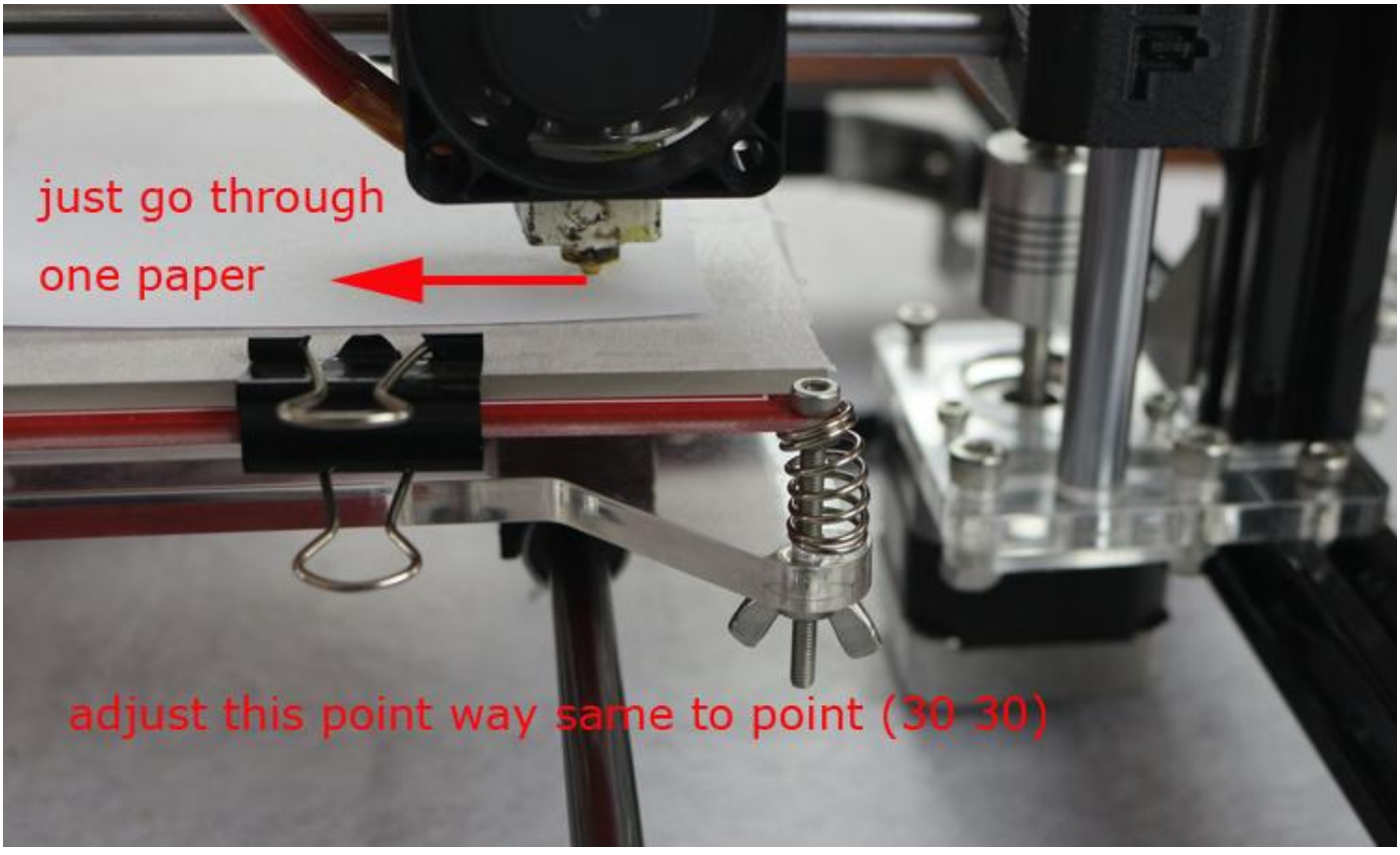
3,when nozzle reach lowest(Z coordinate is 0) still not reach the platform,adjust the butterfly nut to raise the platform, ensure one paper just can go through the distance between the nozzle and platform.this point is ok.

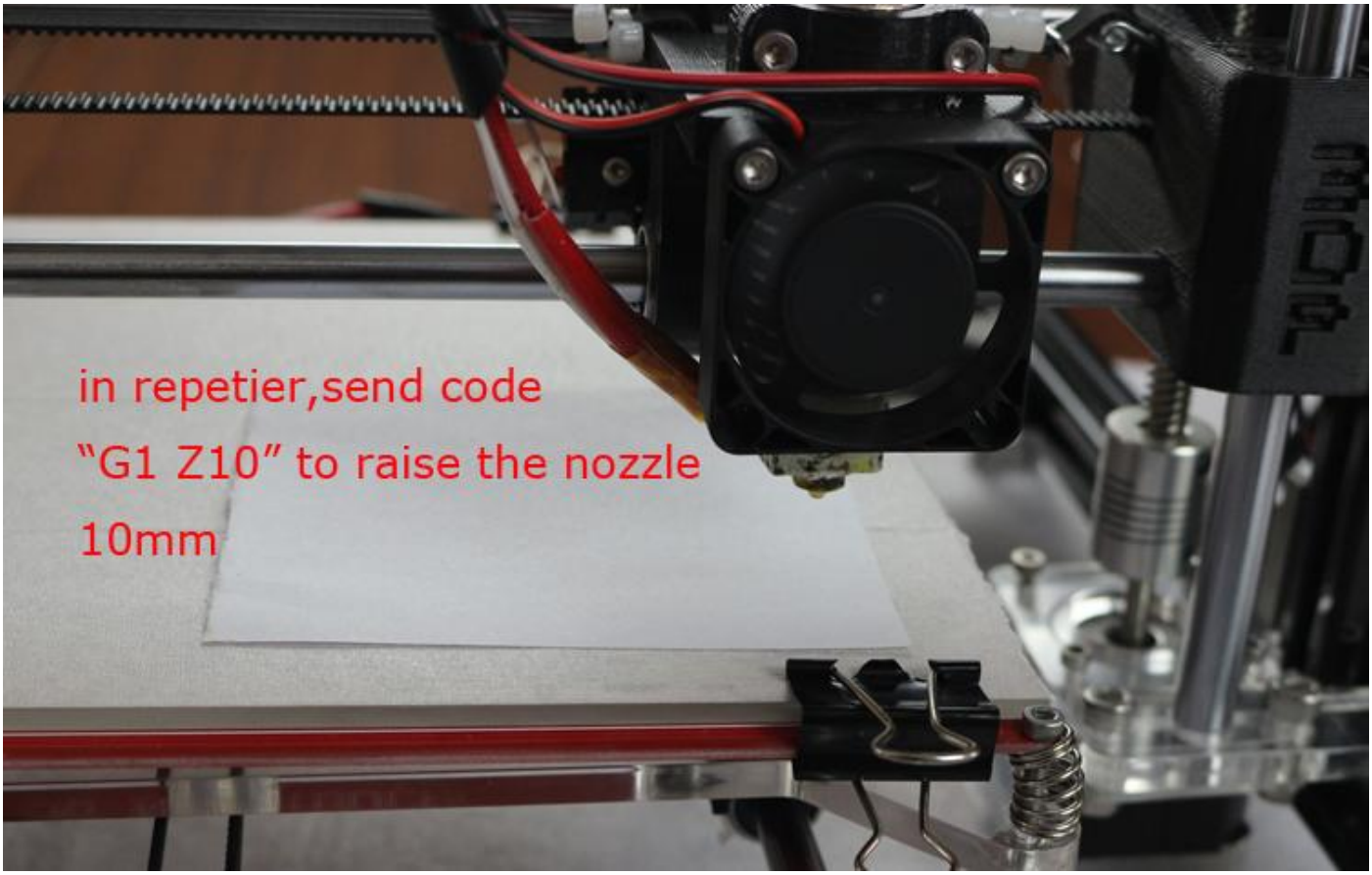
5,if the nozzle has no reach lowest(Z coordinate is 0),the nozzle has hited the platform.adjust the butterfly nut to lower the platform,then lower nozzle height to lowest ,ensure one paper just can go through the distance between the nozzle and platform.this point is ok.

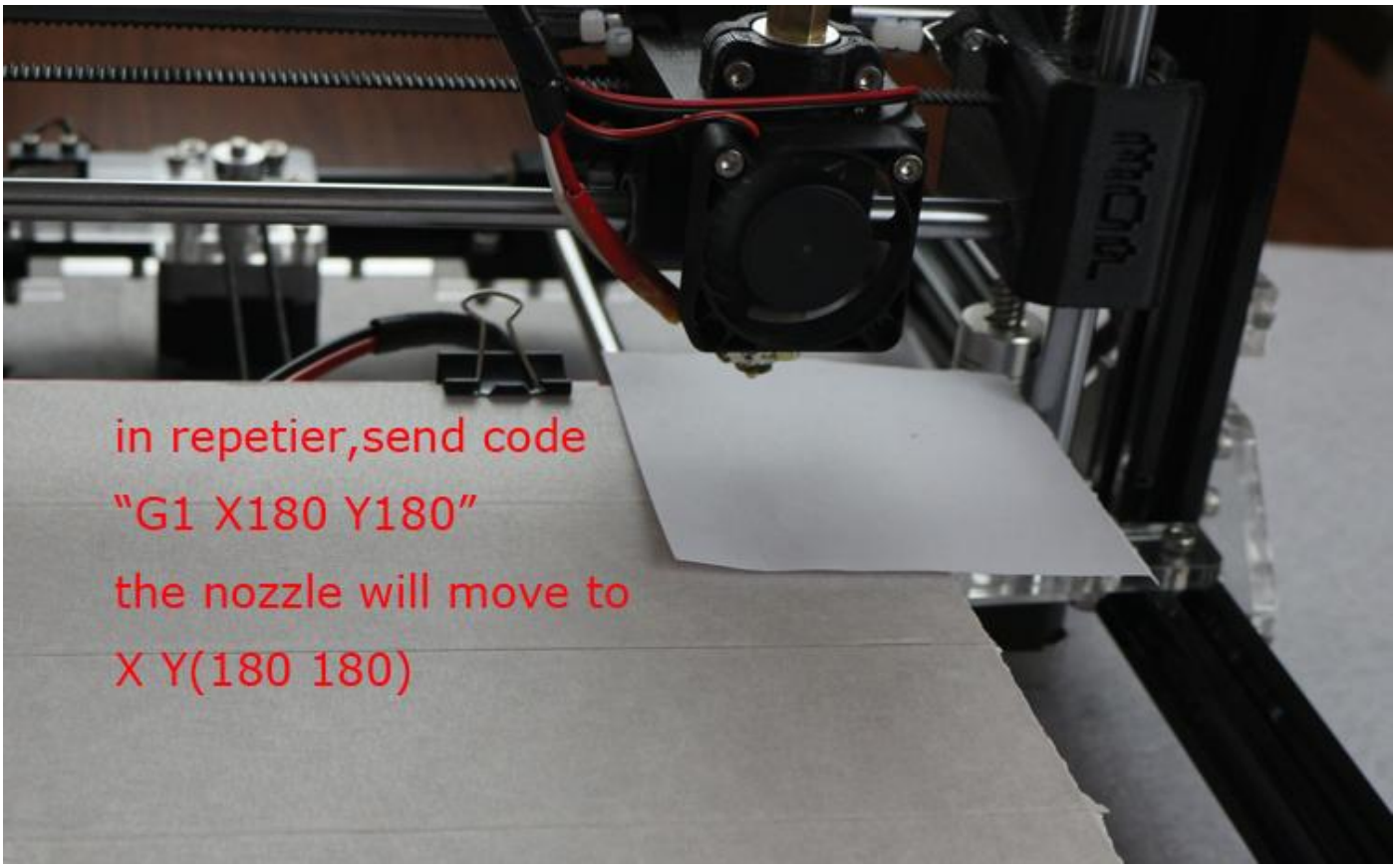

just go through
one paper

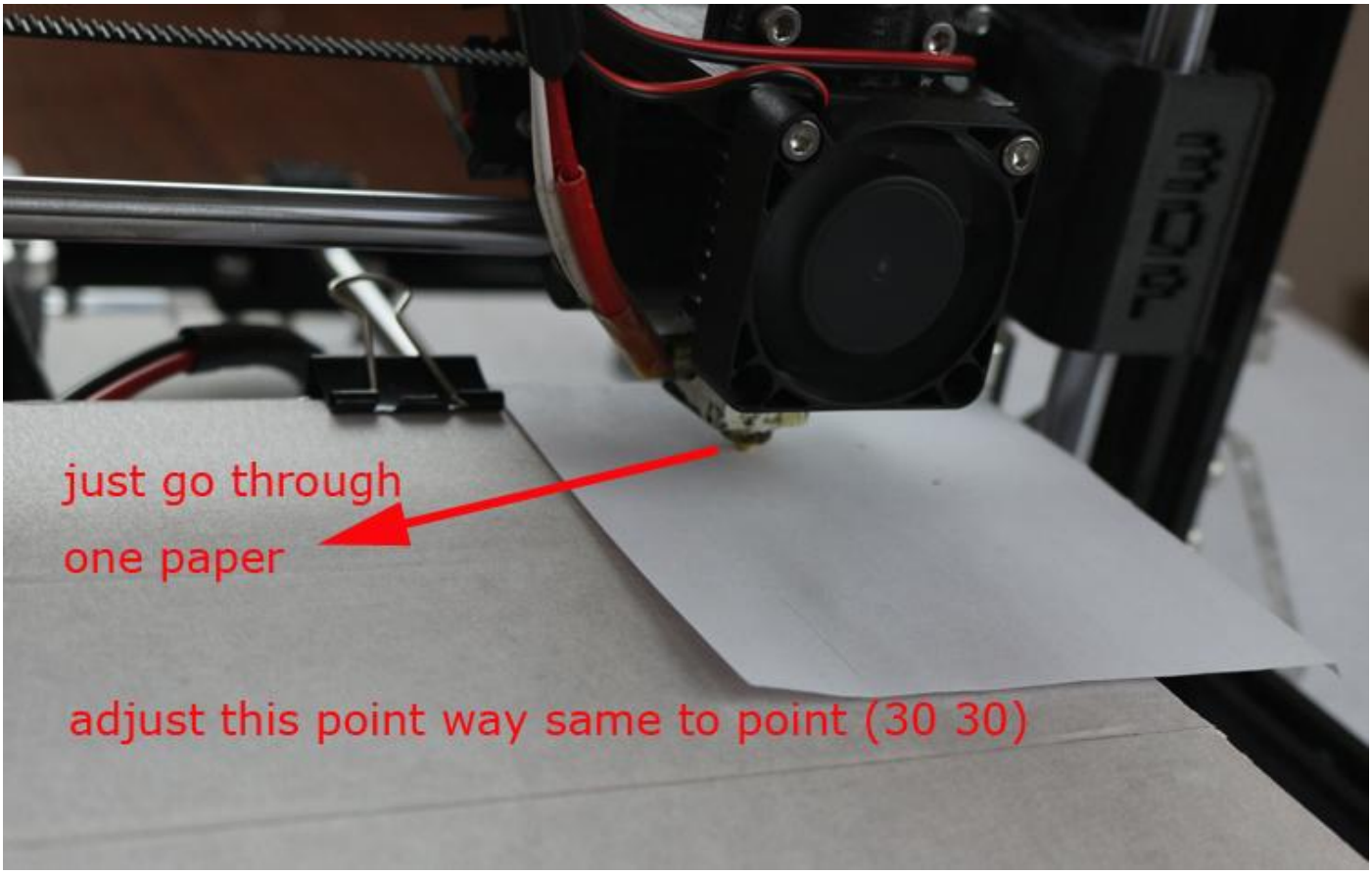

in repetier,send code
"G1 Z10" to raise the nozzle
important notes: this step must do,raise nozzle
then move to aviod damage platform

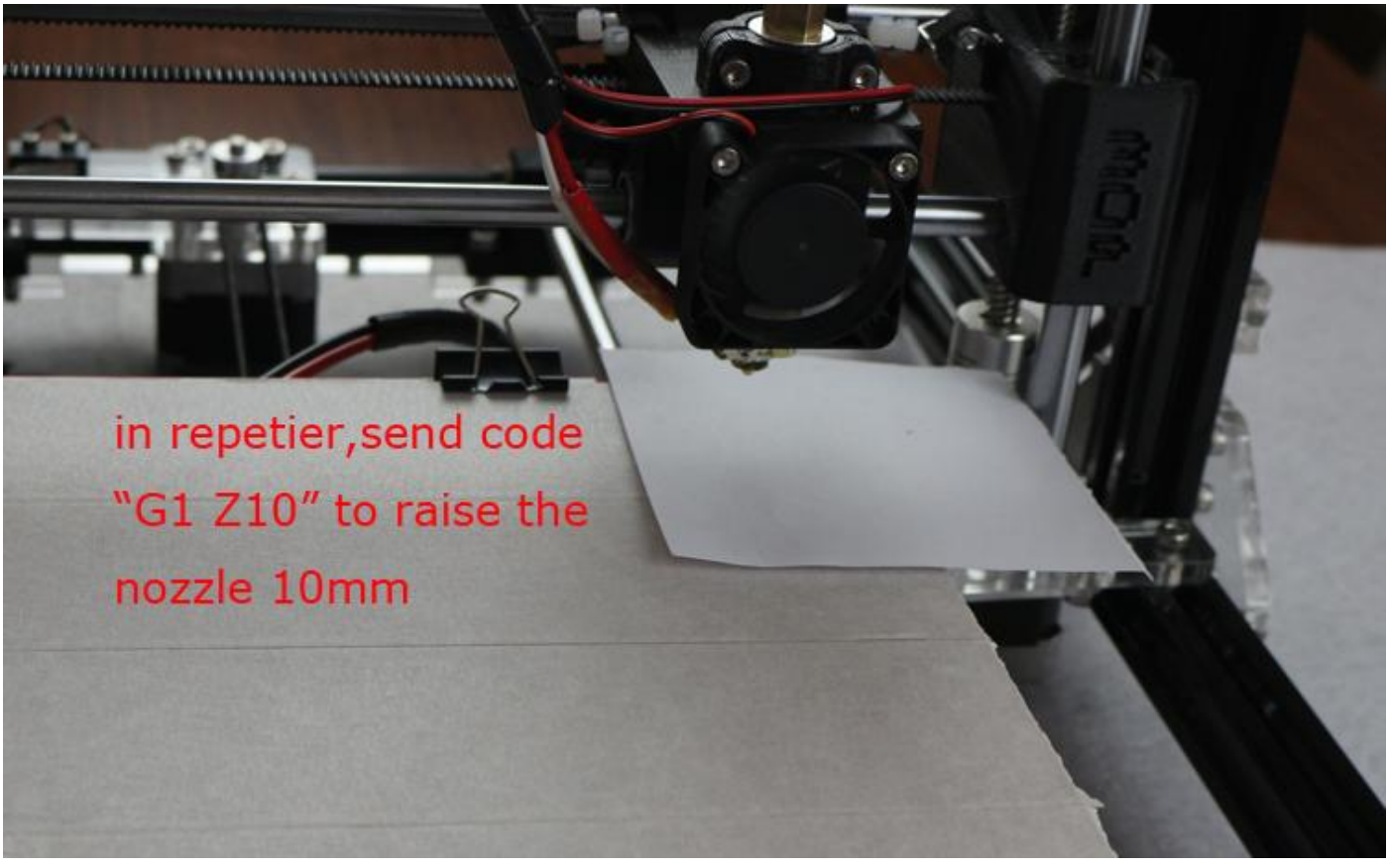

in repetier,send code
"G1 X180 Y30"
the nozzle will move to
X Y (180 30)

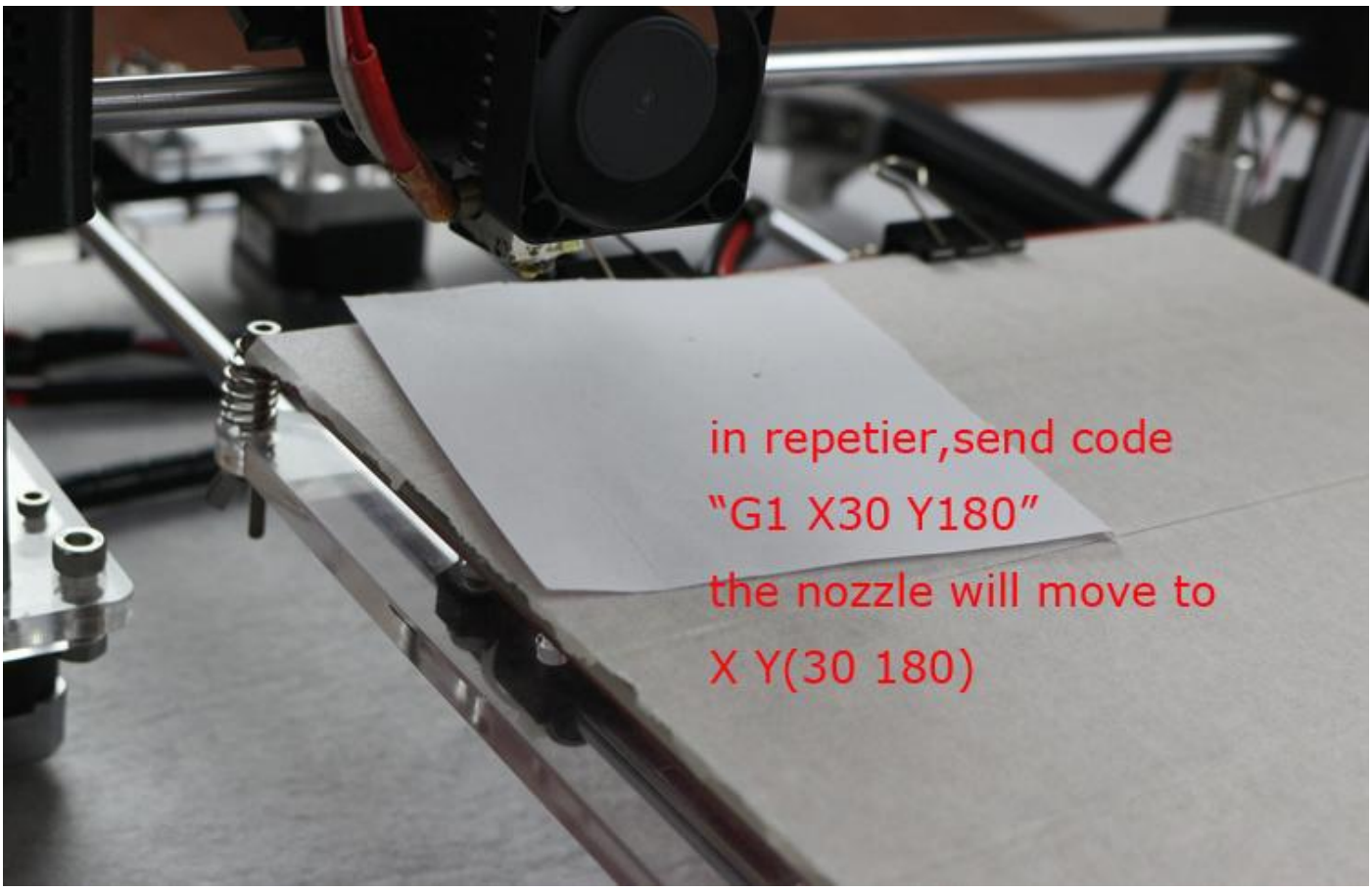

just go through
one paper
adjust this point way same to point (30 30)

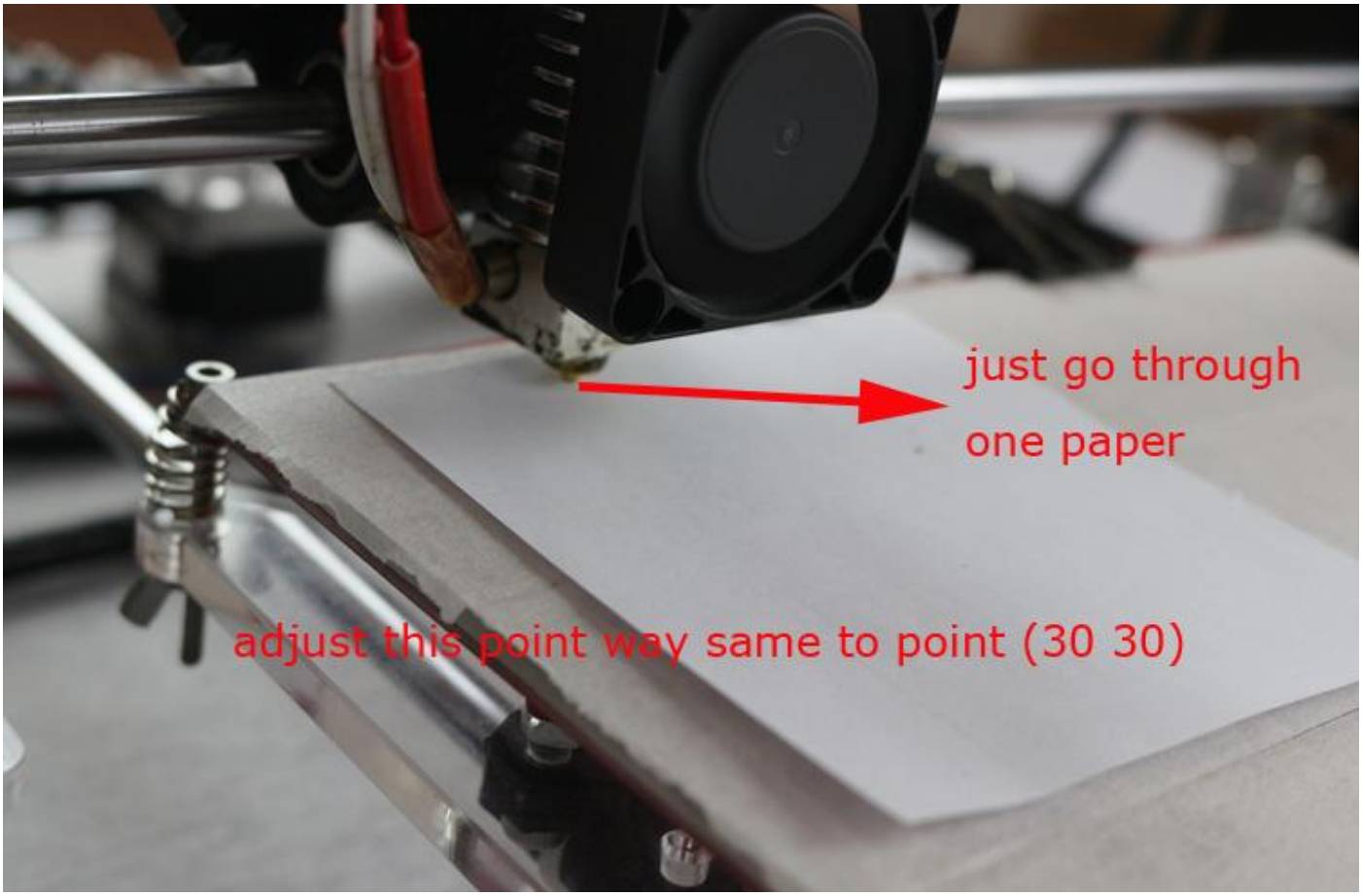

in repetier,send code
"G1 Z10" to raise the nozzle
10mm

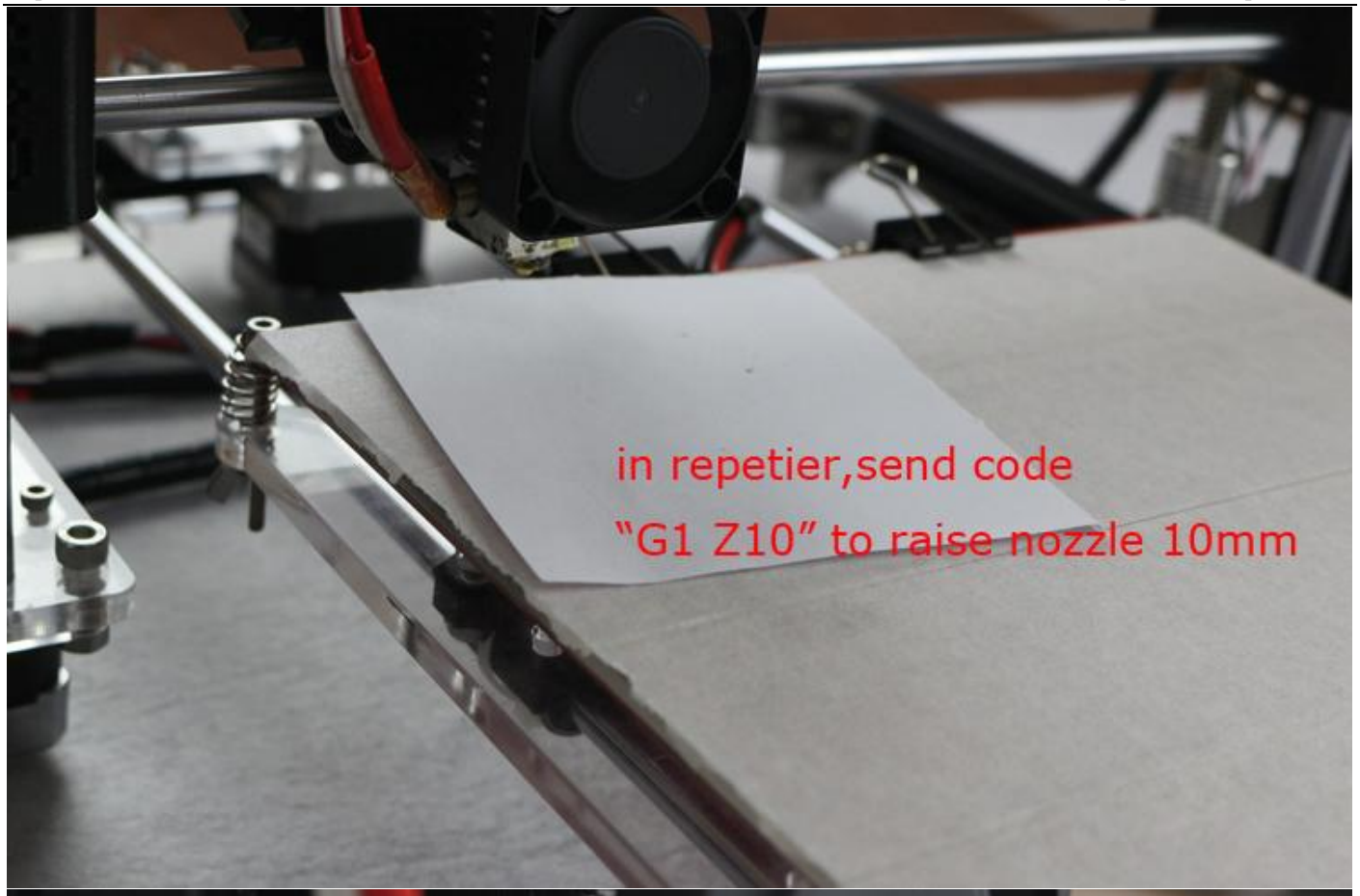

in repetier,send code
"G1 X180 Y180"
the nozzle will move to
X Y(180 180)

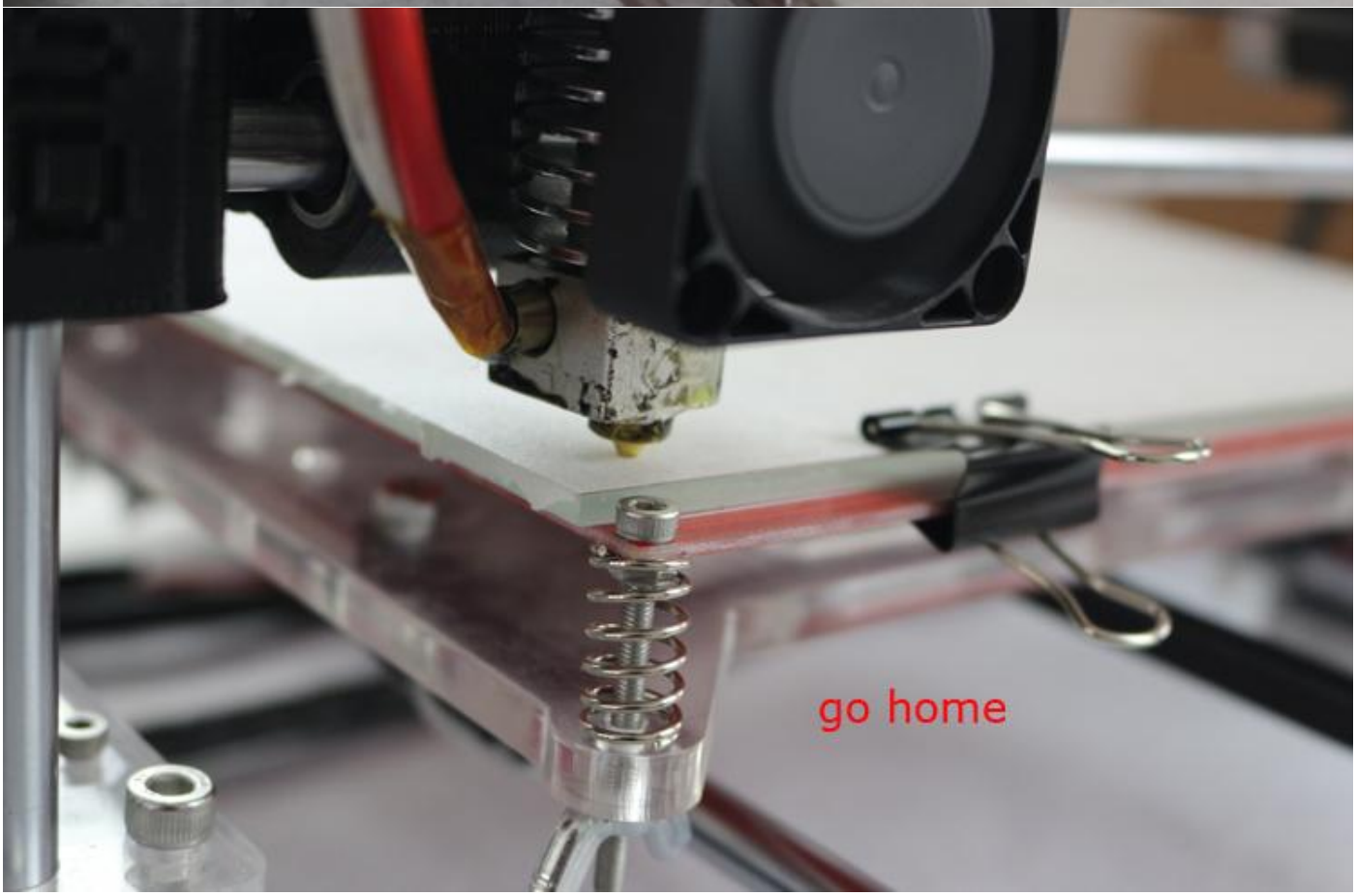

just go through
one paper
adjust this point way same to point (30 30)


in repetier,send code
"G1 Z10" to raise the
nozzle 10mm

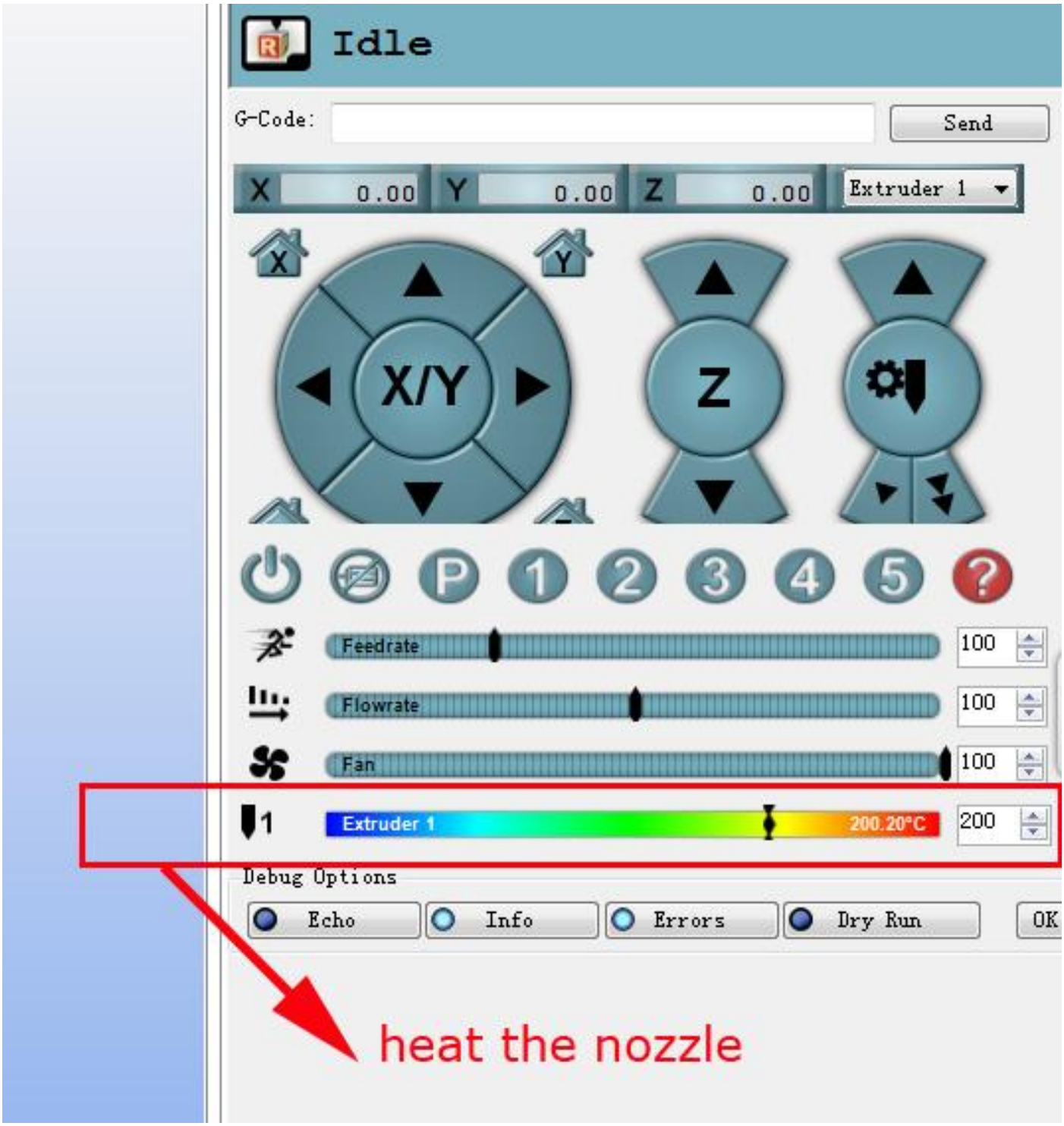

in repetier,send code
"G1 X30 Y180"
the nozzle will move to
X Y(30 180)

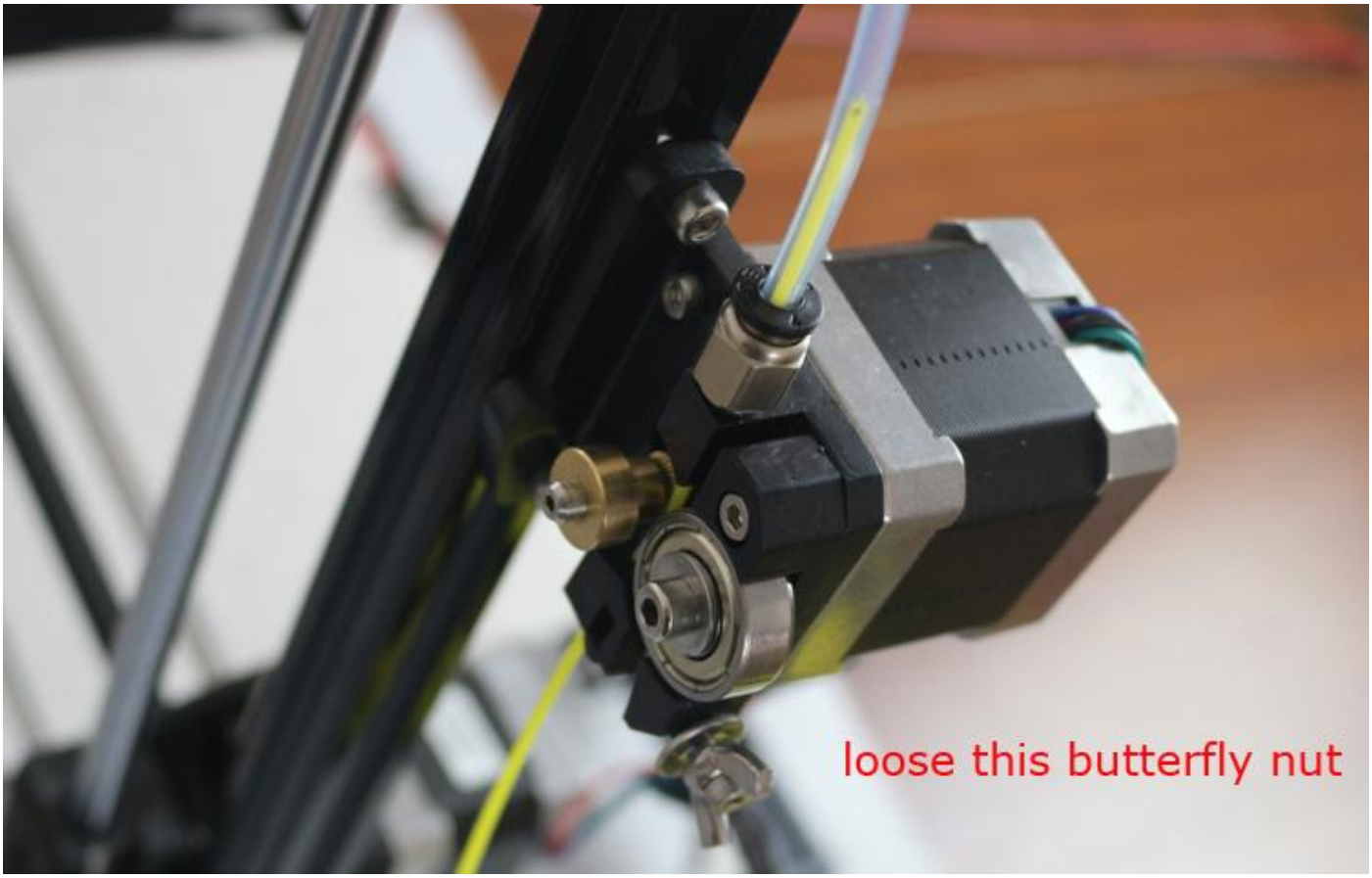

just go through
one paper
adjust this point way same to point (30 30)

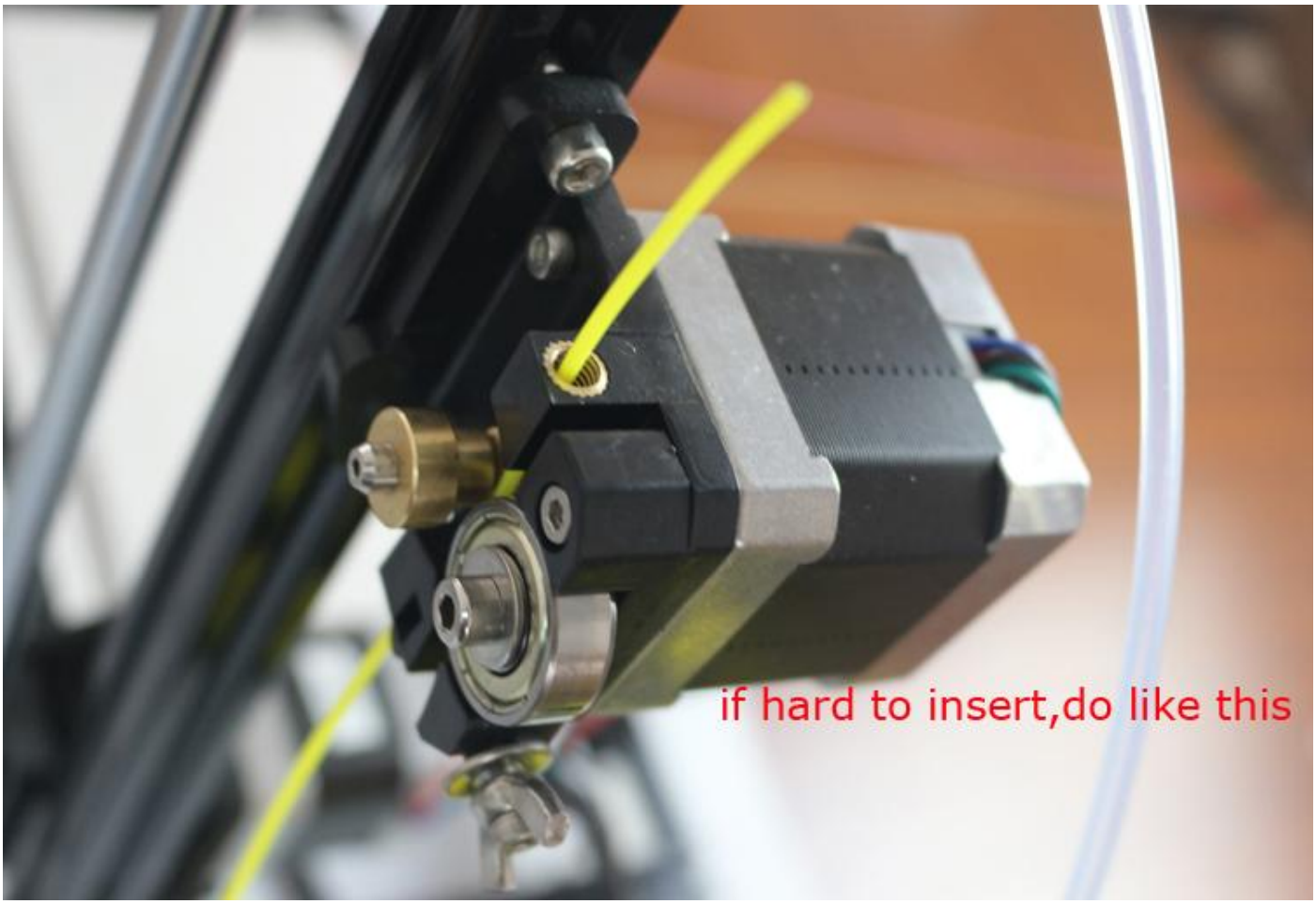

in repetier,send code
"G1 Z10" to raise nozzle 10mm

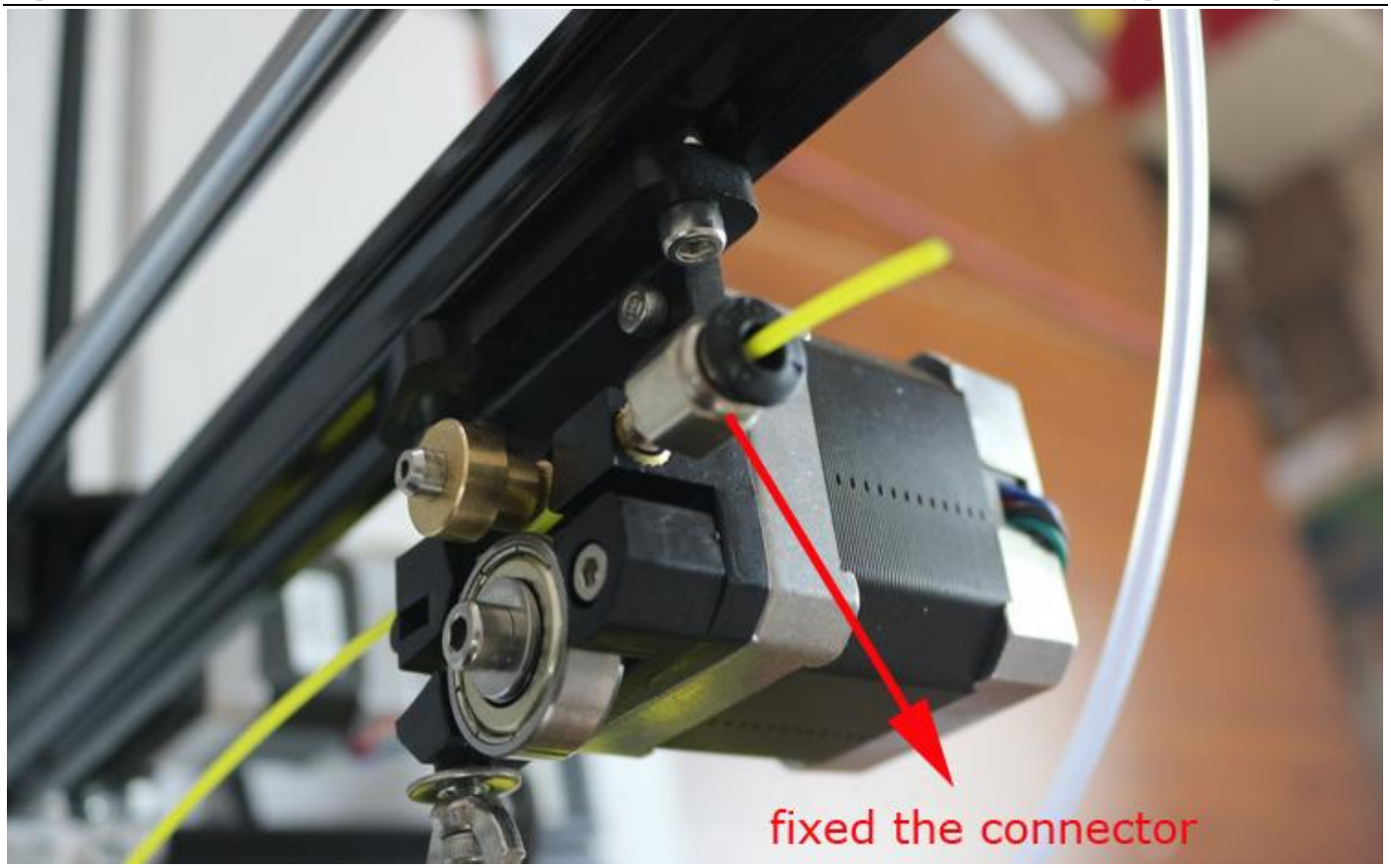

go home

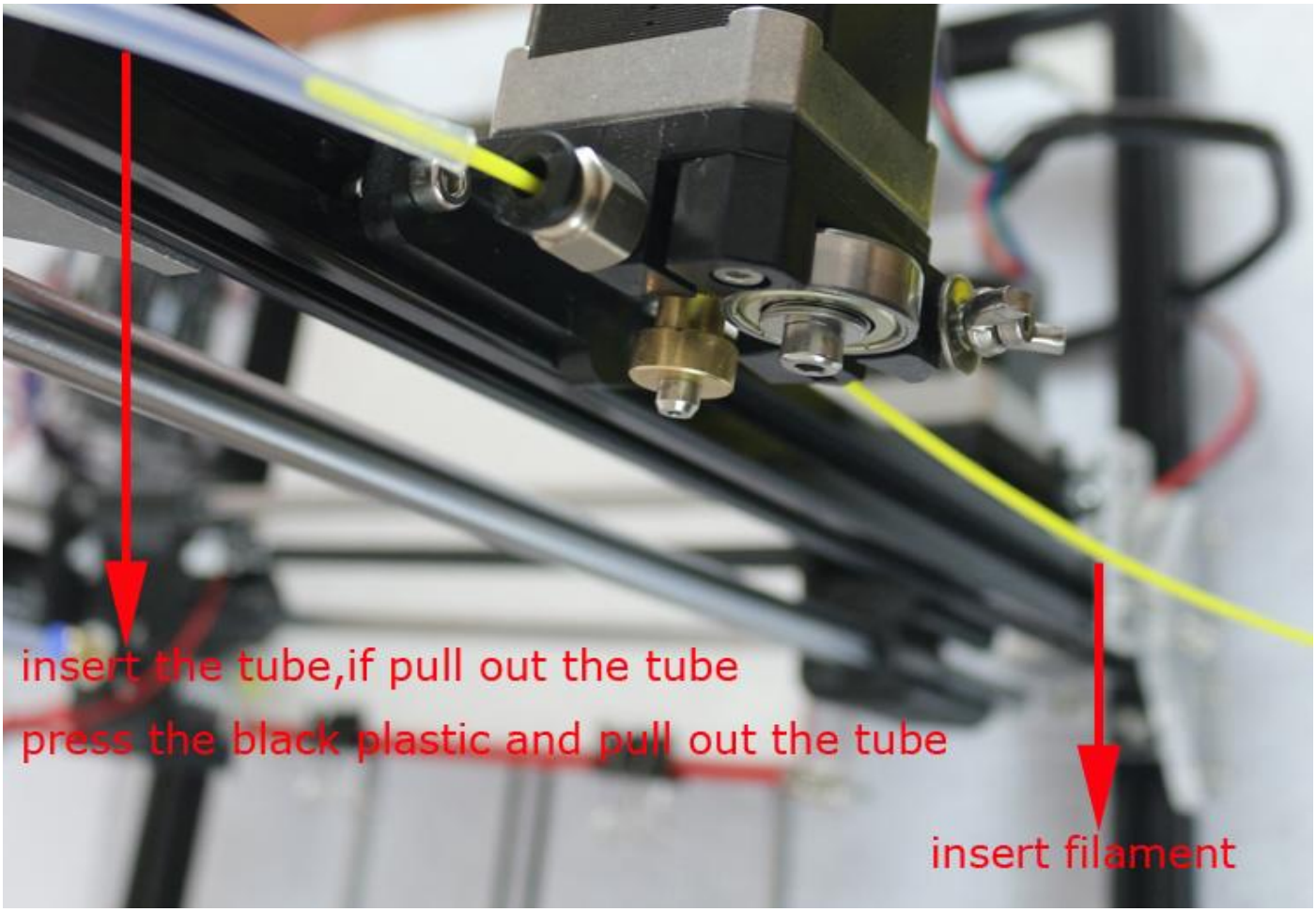
# 5 Insert filament

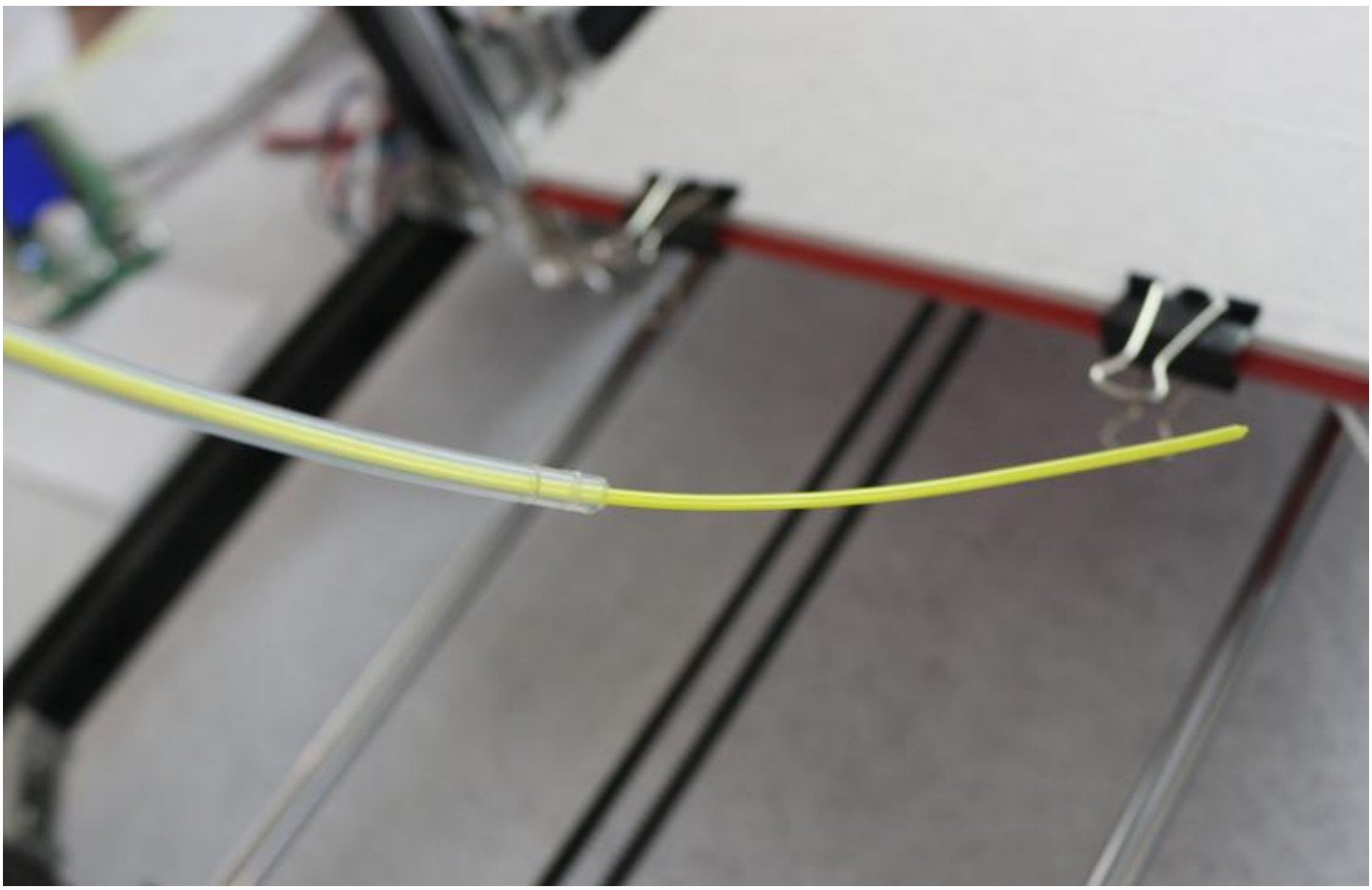


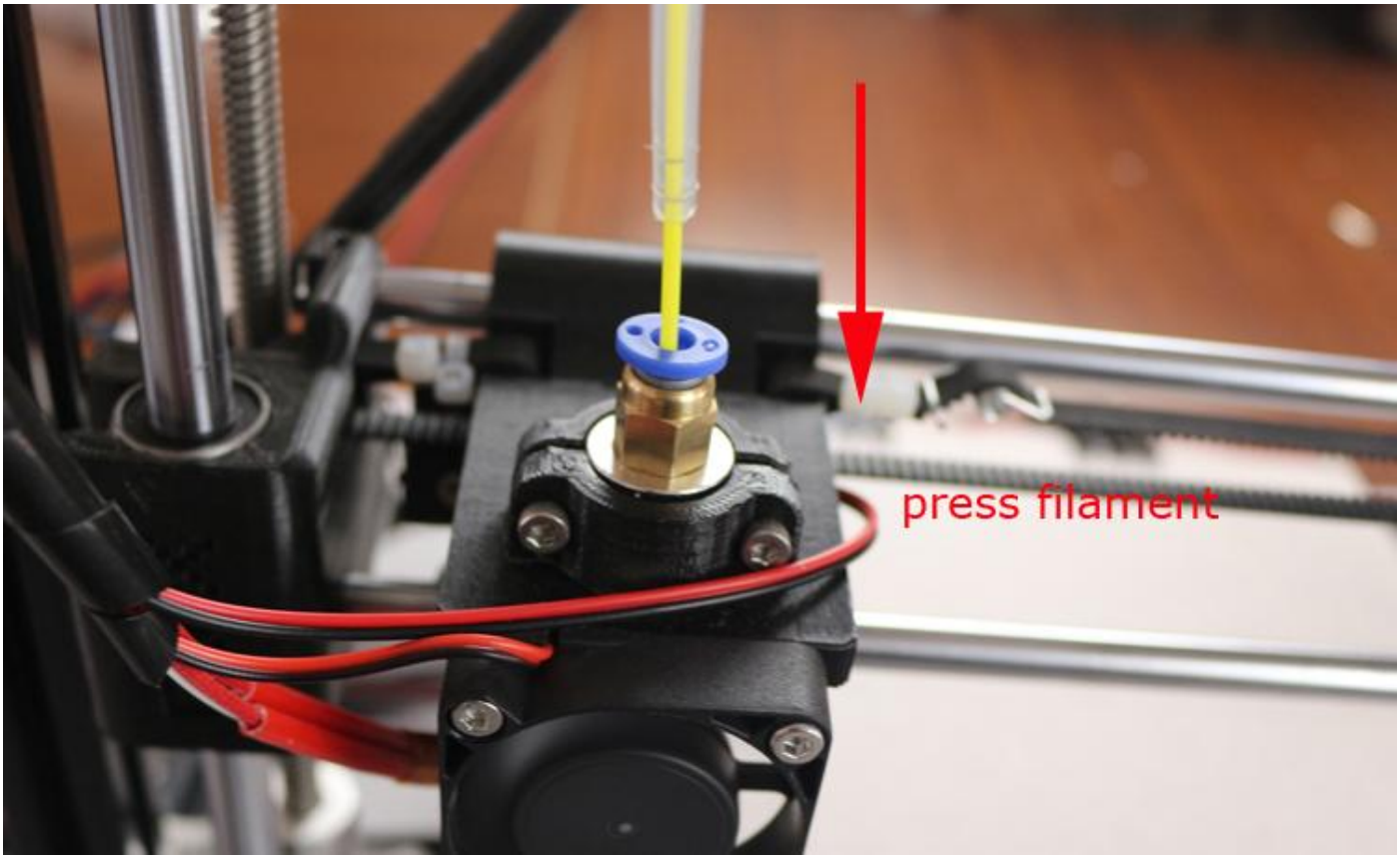

loose this butterfly nut

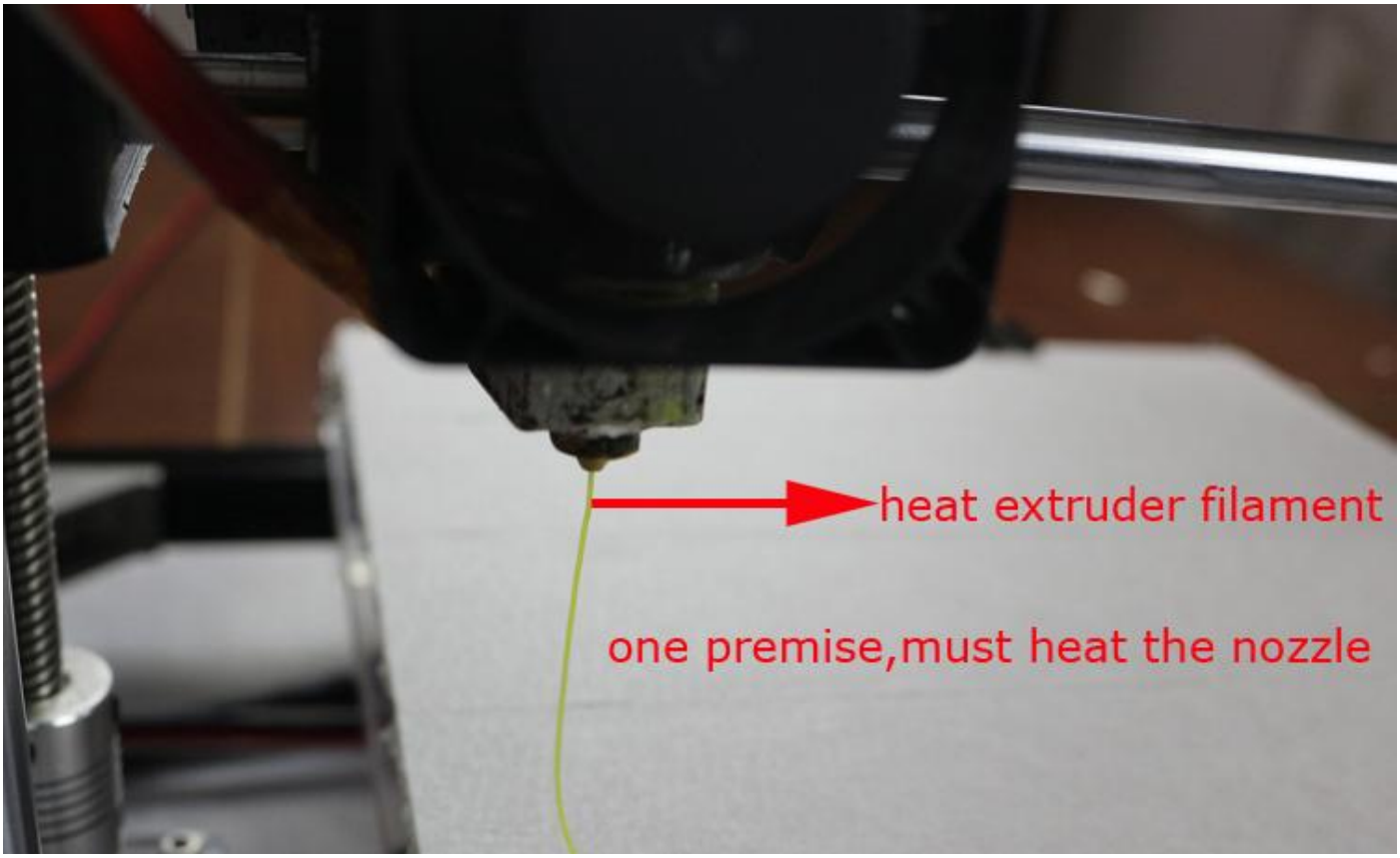

if hard to insert,do like this

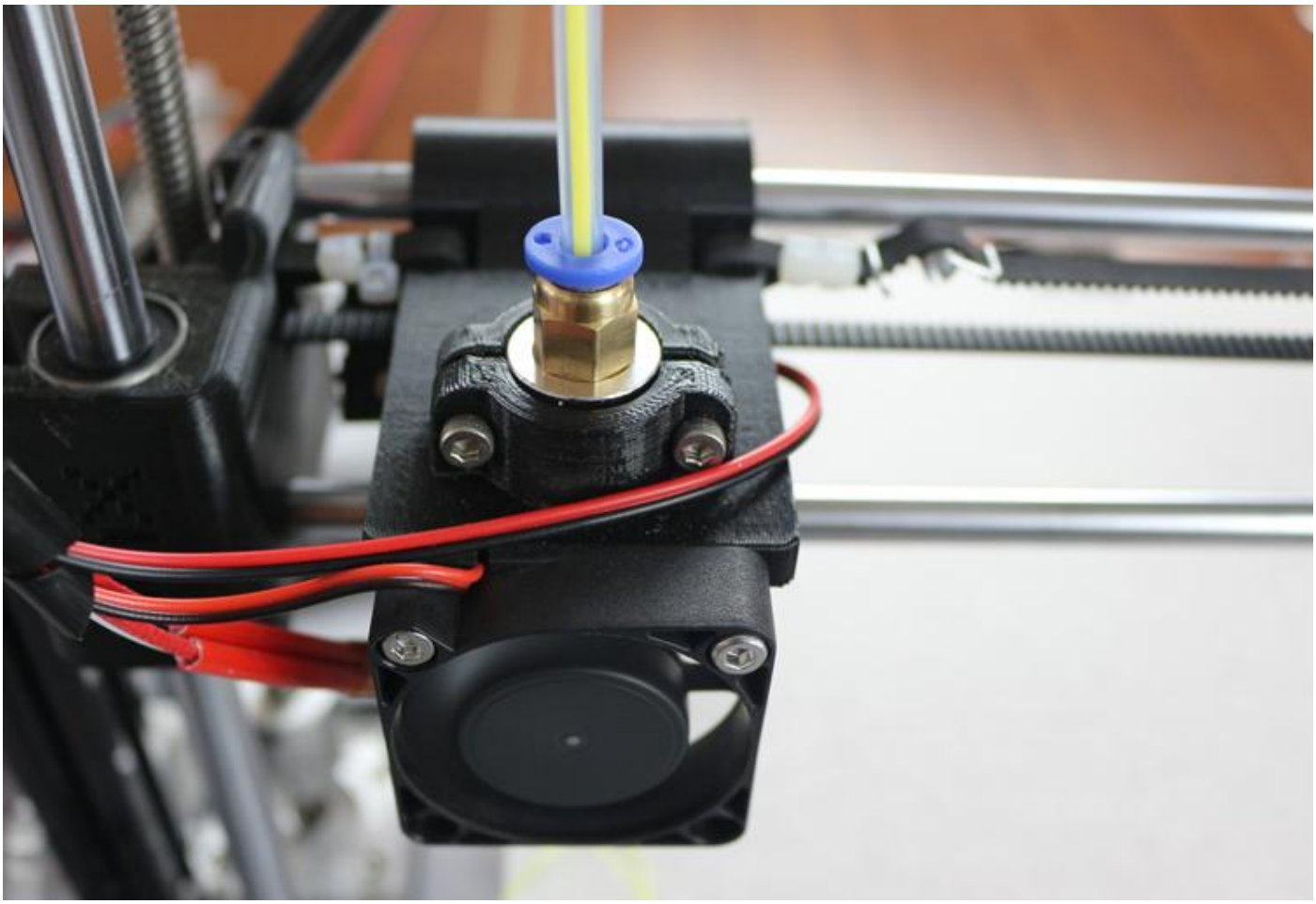

fixed the connector


insert the tube,if pull out the tube
press the black plastic and pull out the tube
insert filament




press filament


heat extruder filament
one premise,must heat the nozzle



# 4 How to print

## Important Note

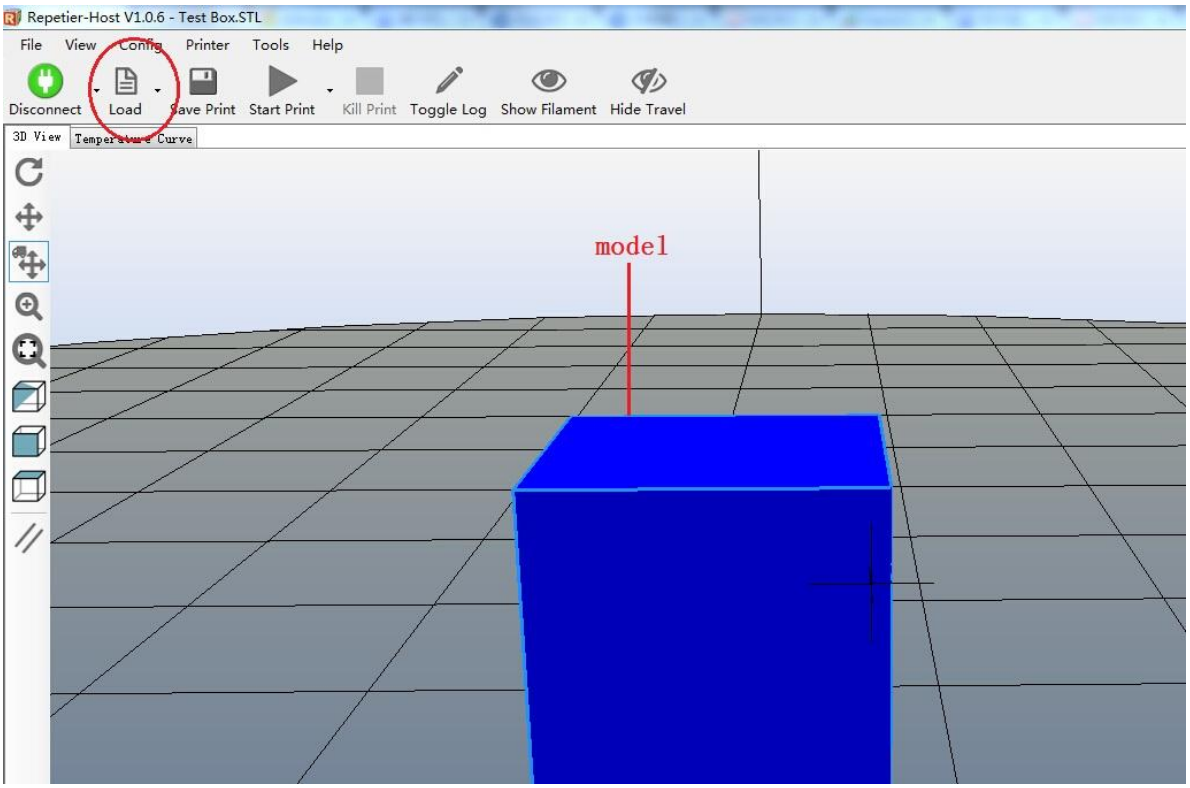
B,when printing,guarantee the fan working.the command to start fan is M106. Before start printing,the fan also work automatically with the temperature increase.

C,when first printing or when you are not familiar to the printer.we recommend you not set Reverse filament,to avoid the nozzle block. And when you are familiar to the printer and understand it well, you could make the advanced settings.

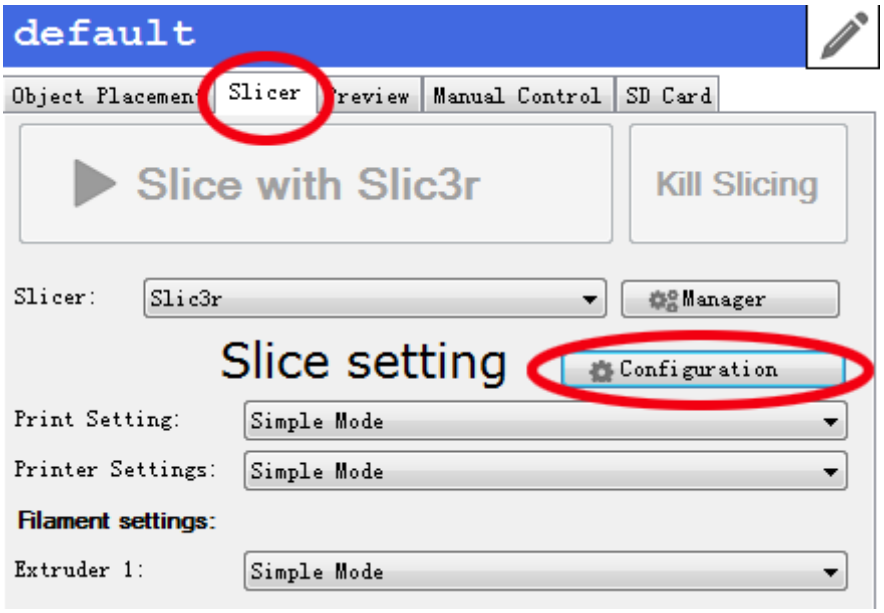
D,we recommend you use the software "Repetier"when printing,it's intelligent and efficient.

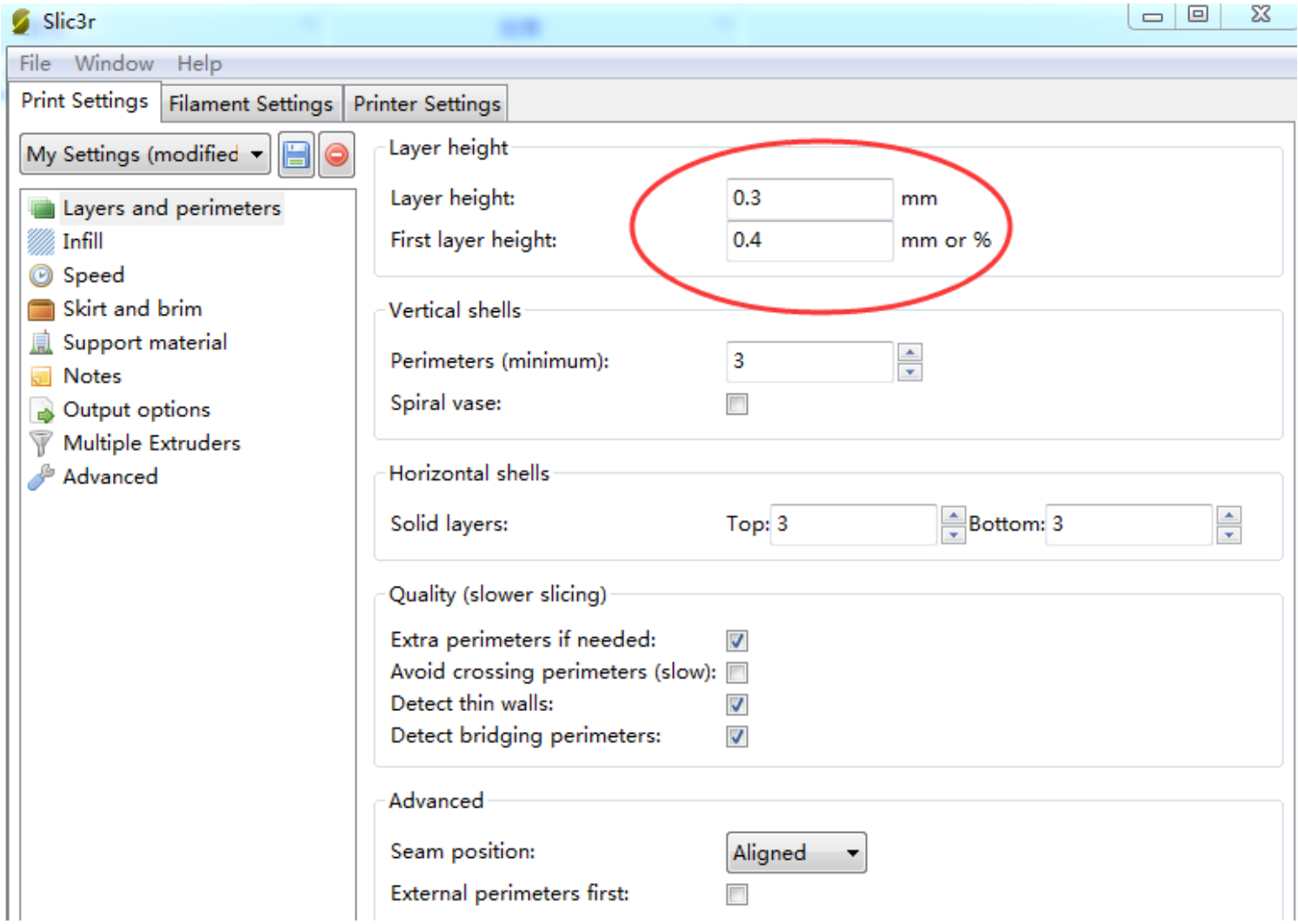
E,the temperature is a important parameter, for PLA filament, the working temperature is 190℃-220℃, you could adjust it,and the temperature should not too high.too high temperature maybe lead to Nozzle clogging.

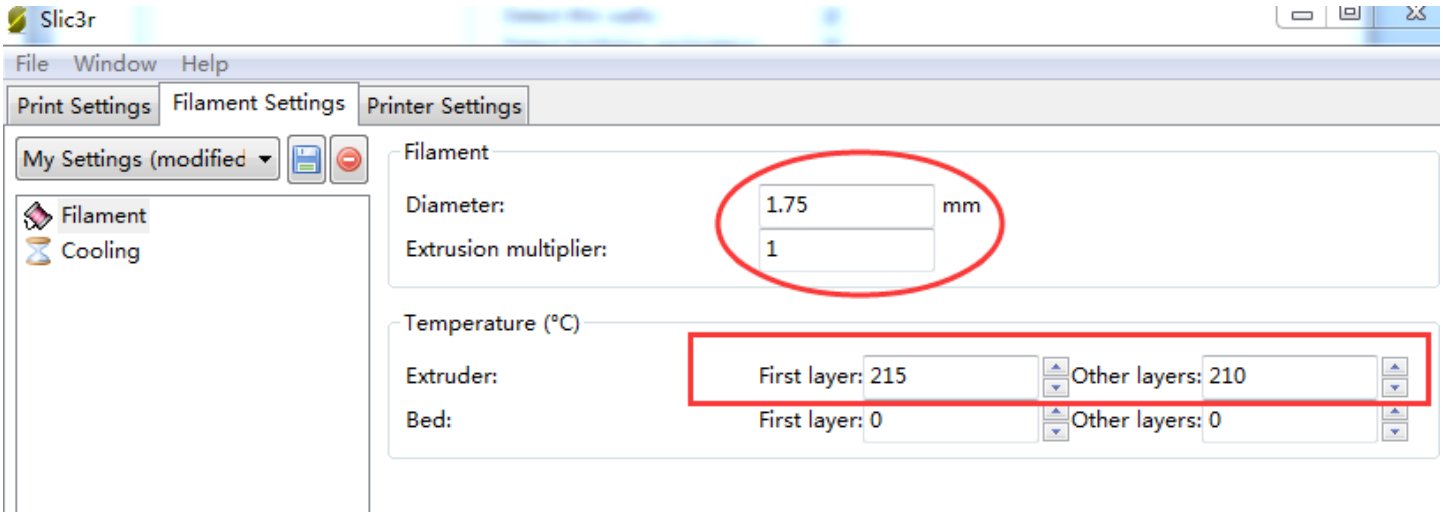
### (1) Loading Model

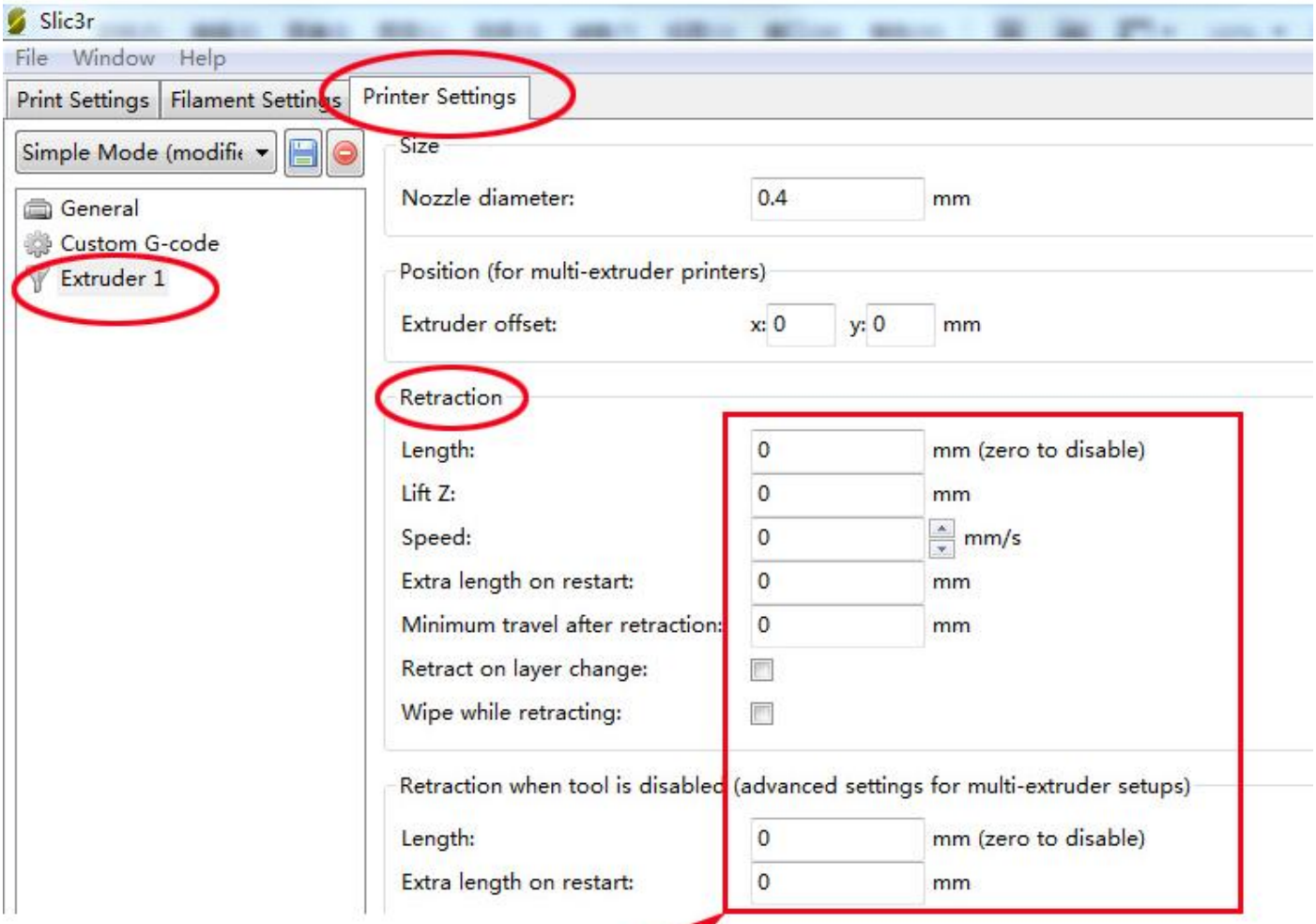


## (1) Slice Setting






All these stting for 0,

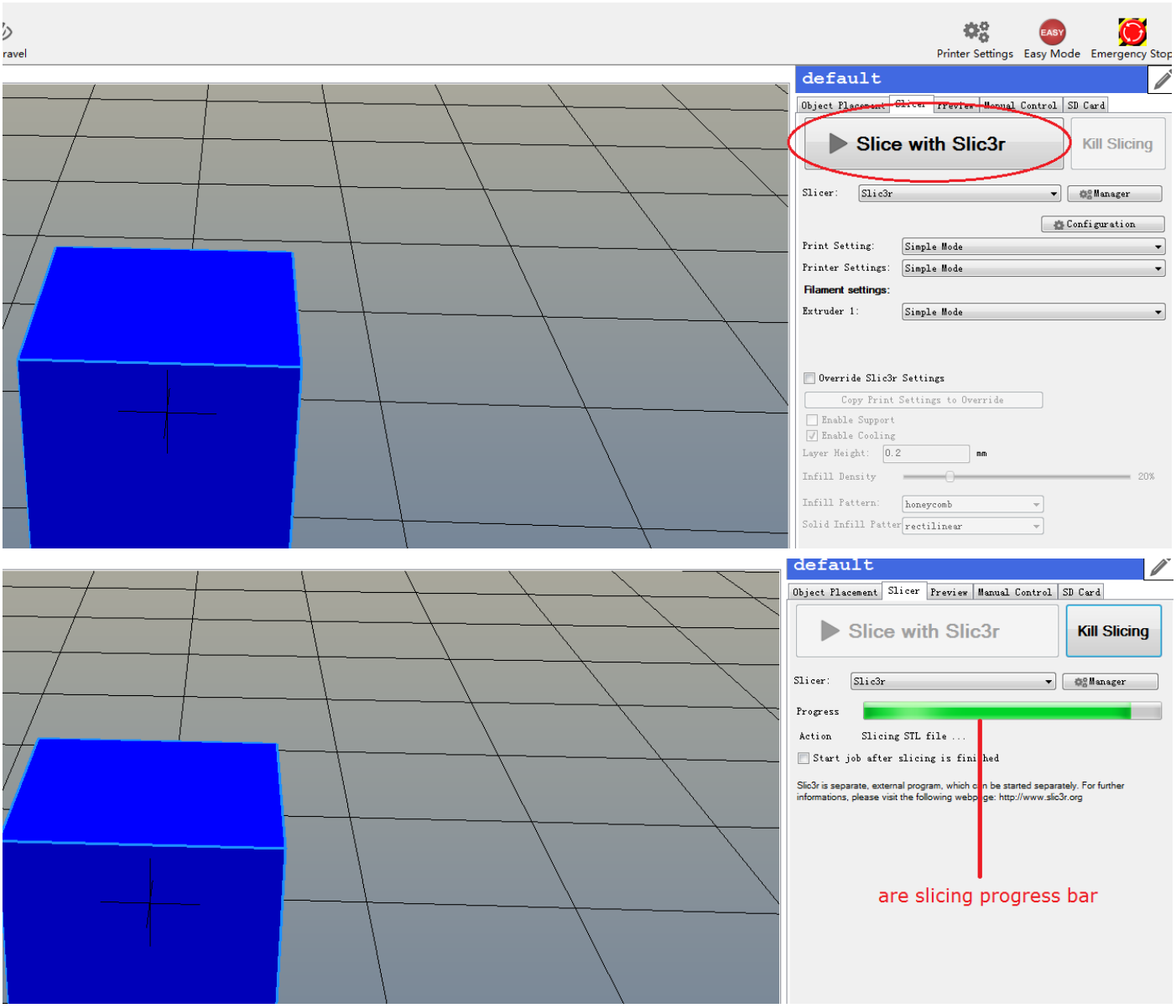
it mean not reverse filament when printing

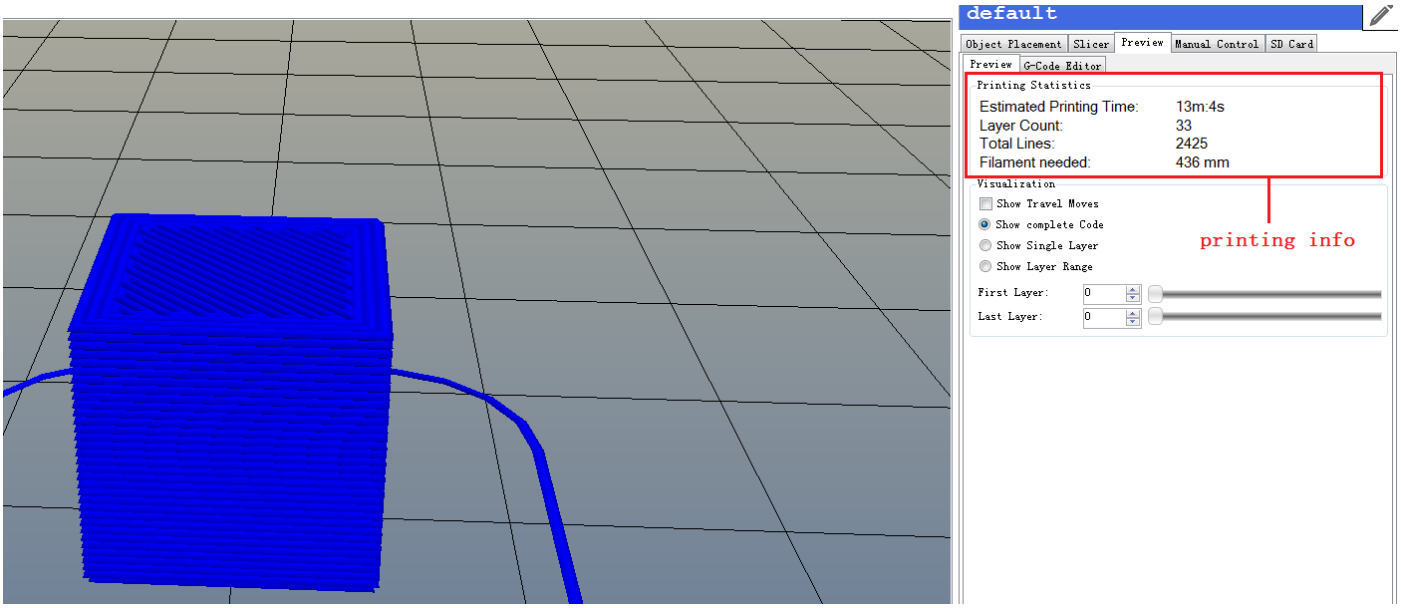
About more info about the slic3d software,pls go to the link as follow.

http://manual.slic3r.org/intro/overview

## (2) Slice the model

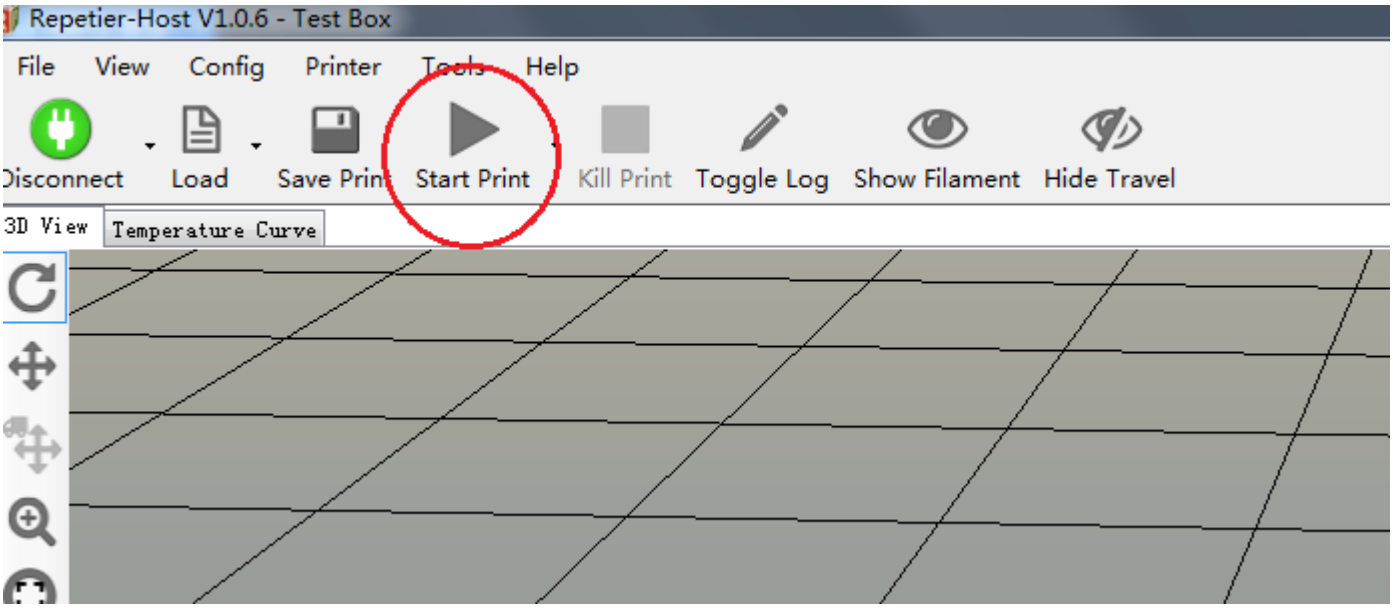
After the setting for slice,click the "Slice with Slic3r",during the slice,will appear green progress bar,after slice,will appear the printing time and need filament info.

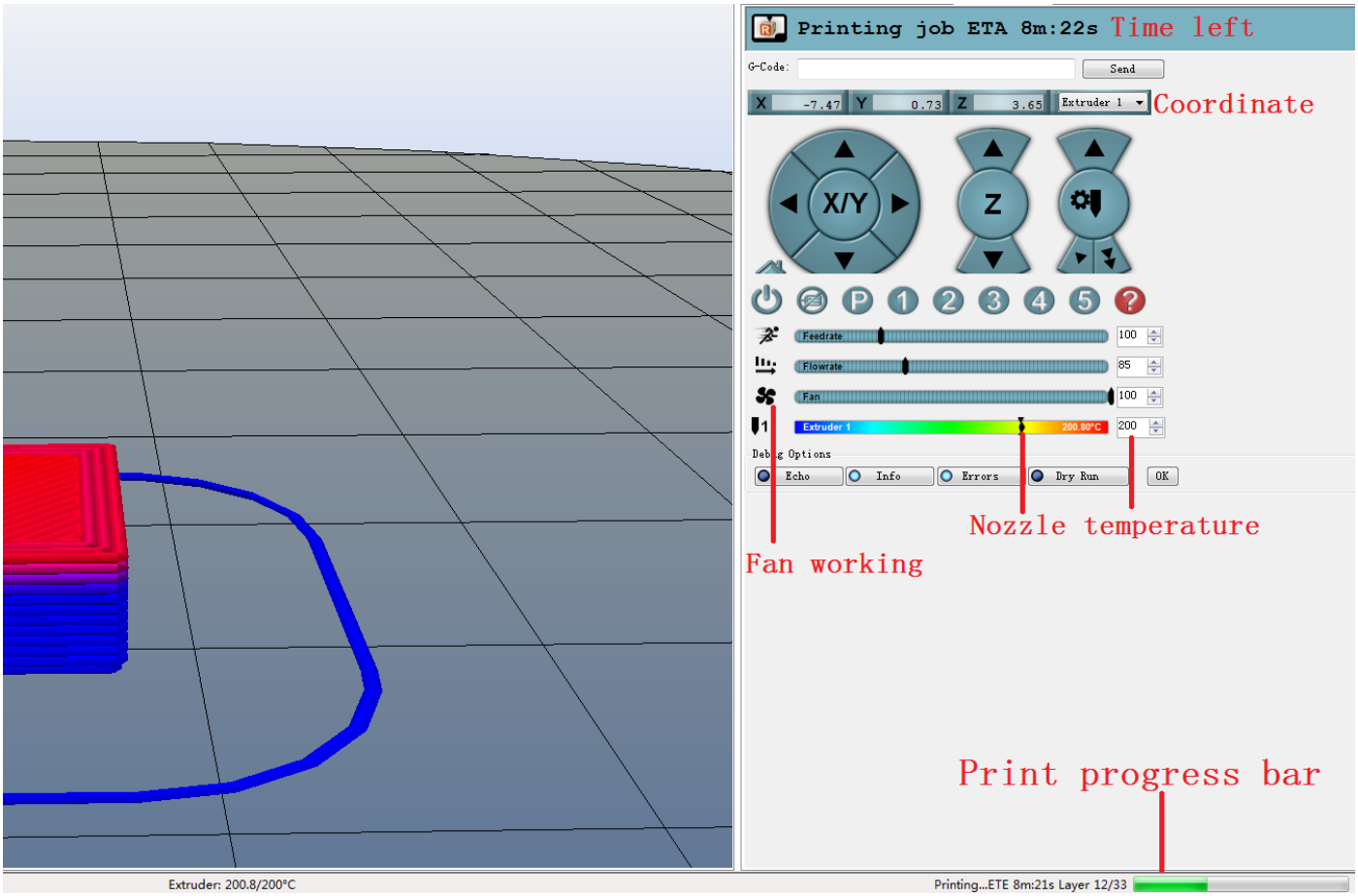


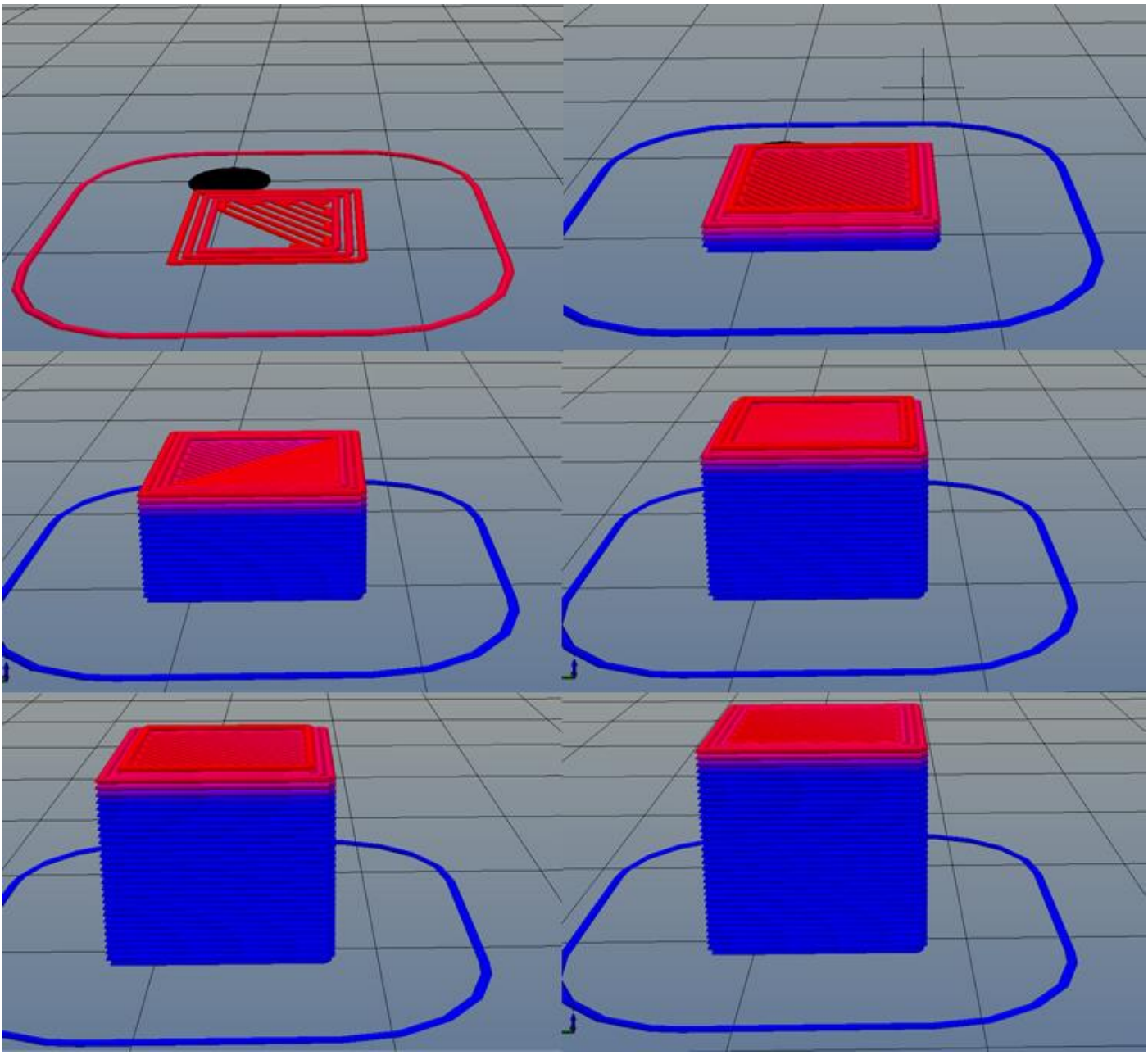



## (3) printing

Complete sliced,could start printing,click the "Start print",will print the model, the panel display printing progress.




Printing job ETA 8m:22s Time left
G-Code:
Send
X -7.47
Y 0.73
Z 3.65
Extruder 1
Coordinate
X/Y
Z
Feedrate
100
Flowrate
85
Fan
100
Extruder 1
200.80°C
200
Debug Options
Echo
Info
Errors
Dry Run
OK
Nozzle temperature
Fan working
Print progress bar
Extruder: 200.8/200°C
Printing...ETE 8m:21s Layer 12/33



# Software latest Updates

*Alternatively, you can check for any latest updates in the future and download them individually if needed:*
*Arduino [http://arduino.cc/en/main/software]*
*Printrun-Pronterface [http://koti.kapsi.fi/~kliment/printrun]*
*Slic3r [http://slic3r.org/download]*
*jcrocholl Marlin [https://github.com/jcrocholl/Marlin]*
*Repetier [http://www.repetier.com/download/]*

*This Guide will use the following Software & Firmware Package for Kossel Mini.*
*For Windows User [http://www.blomker.com/KosselMini_Windows.zip]*
*For Mac User [http://www.blomker.com/KosselMini_Mac.zip]*