



ELEGOO PHECDA Laser Engraver Limit Switch Installation Guide

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PHECDA laser engraver limit switch installation guide

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Instructions for use

This limit switch installation guide is only suitable for users who can 3D print the limit switch printed parts. Use the print files provided by ELEGOO, you must use the limit switches shown in the following picture.



Material list

X-axis limit switch printed part download link

<https://drive.google.com/file/d/193AMYL0baBkOGaarZtu4bTabPZLMSriz/view?usp=sharing>

Y-axis limit switch printed part download link

https://drive.google.com/file/d/1CSkMJcE6RMgEcmc_w9MLDWho-t7GGrFG/view?usp=sharing

Limit Switch x2

15cm XH2.54 3P cable x1

140cm XH2.54 3P cable x1

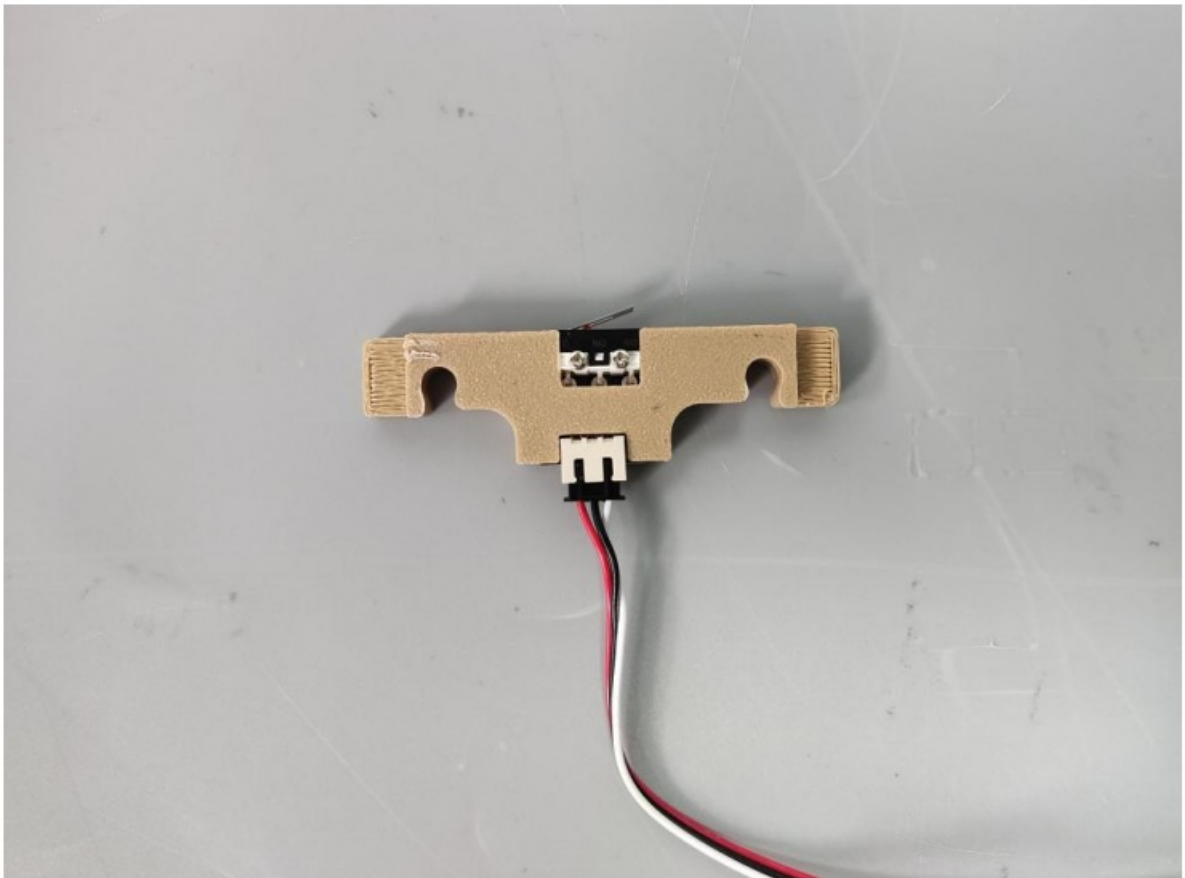
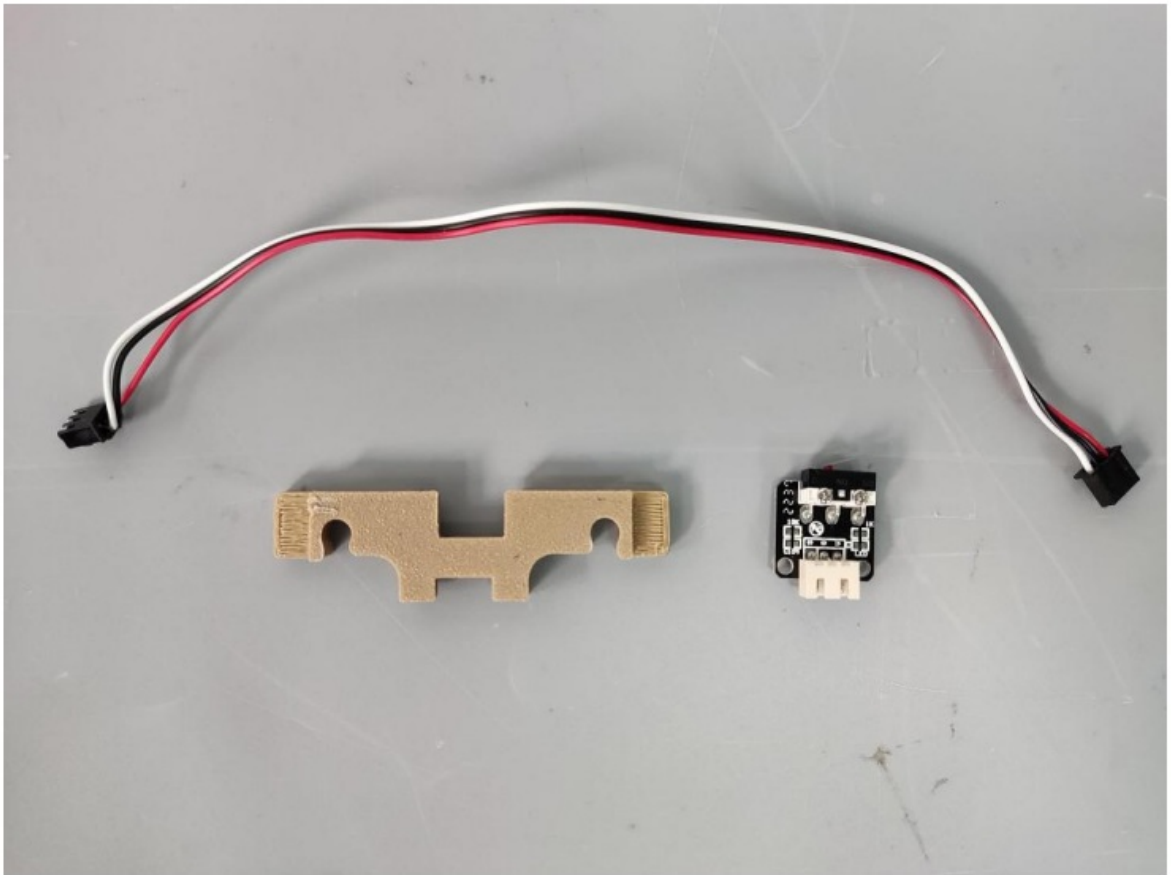
Cable tie x5

PM3*8 screw x1

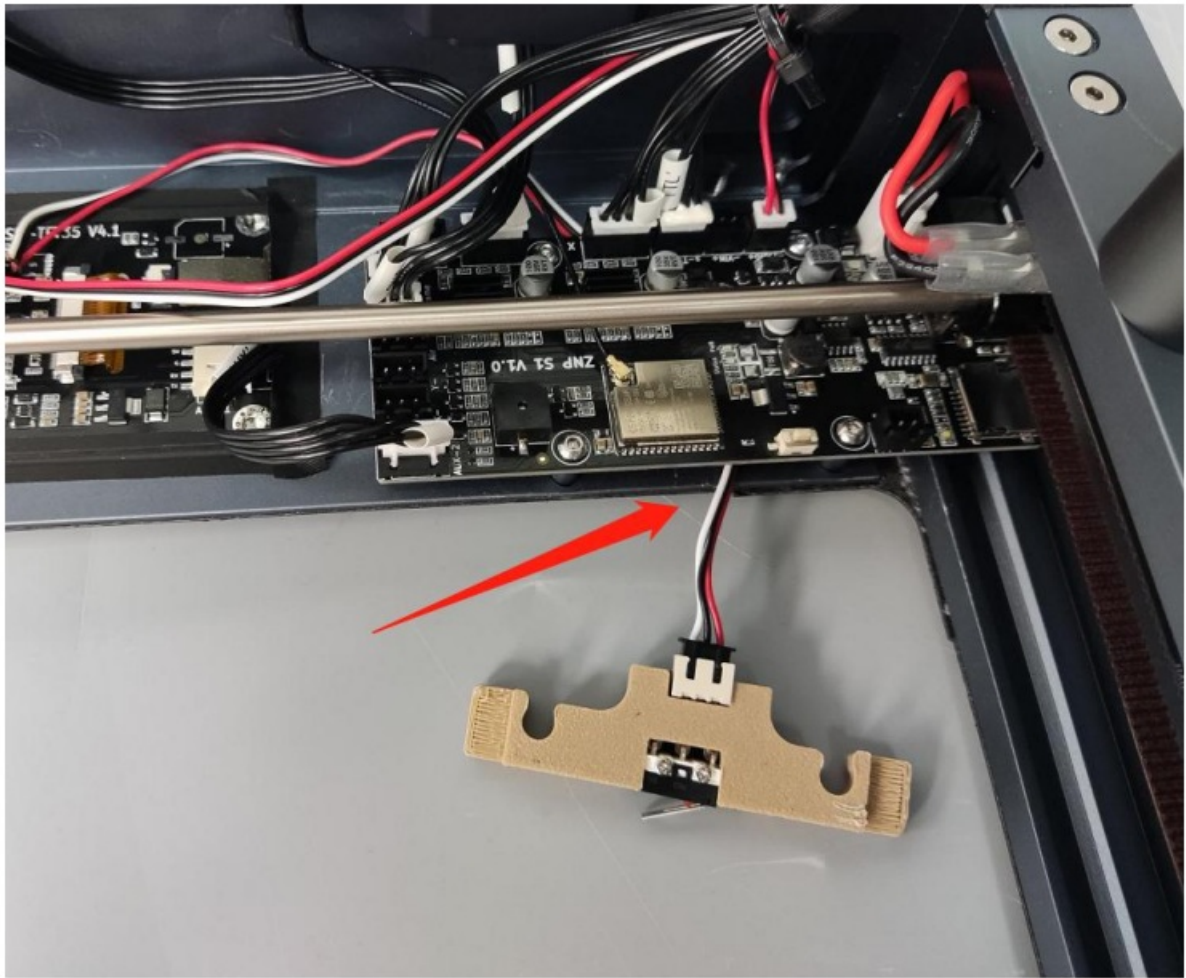
M3*6 self-tapping screw x2

Installation Method

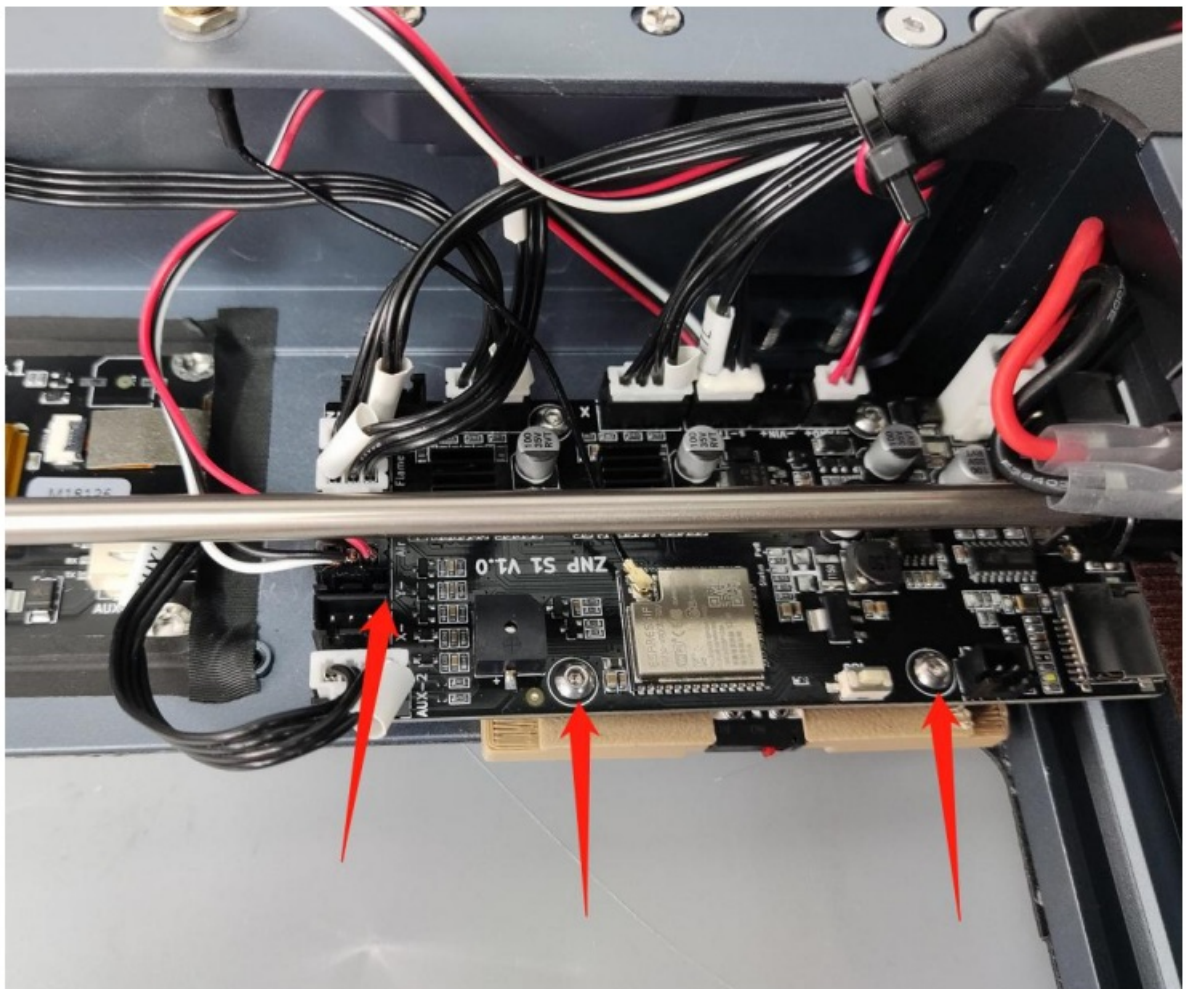
1. Install the Y-axis limit switch to the printed part.



Pass the cable of the limit switch through the bottom gap of the main board.

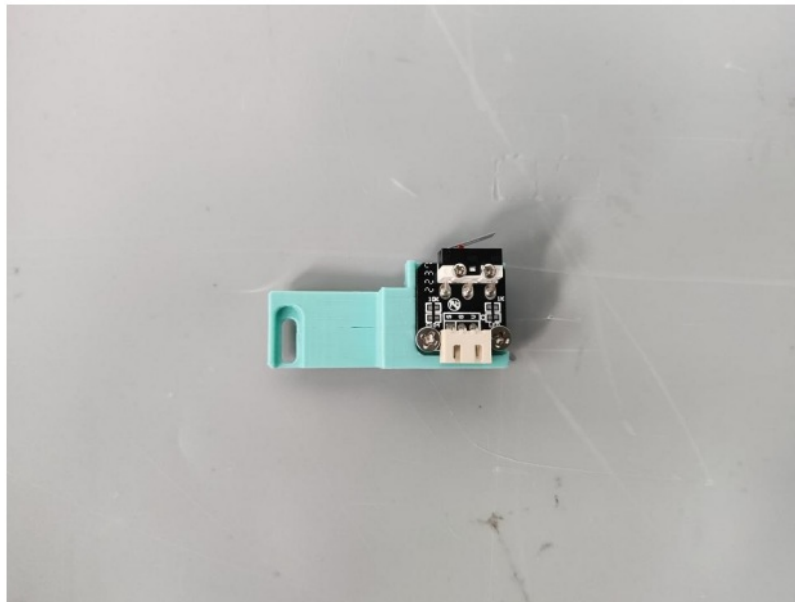
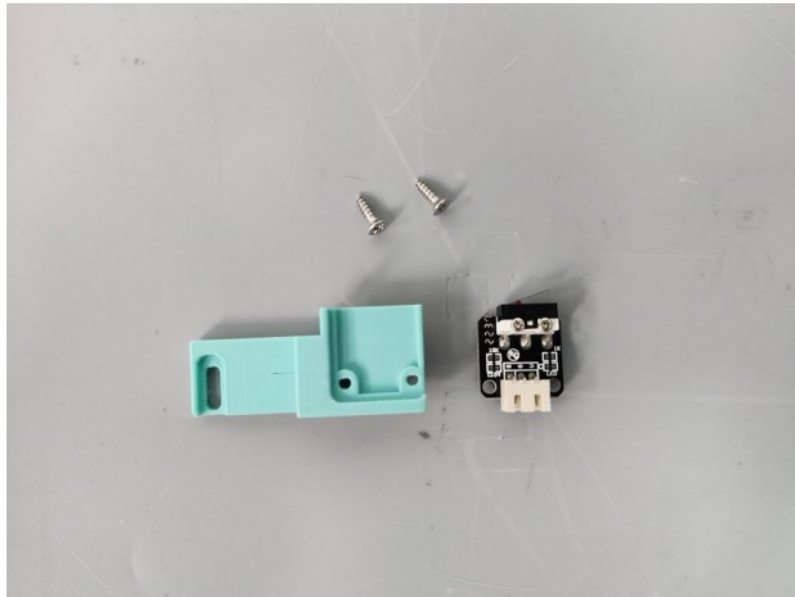


Then push the Y-axis limit switch printed part in and snap it onto the screw pillars of the motherboard. Plug the cable into the "Y-" port. As shown below.

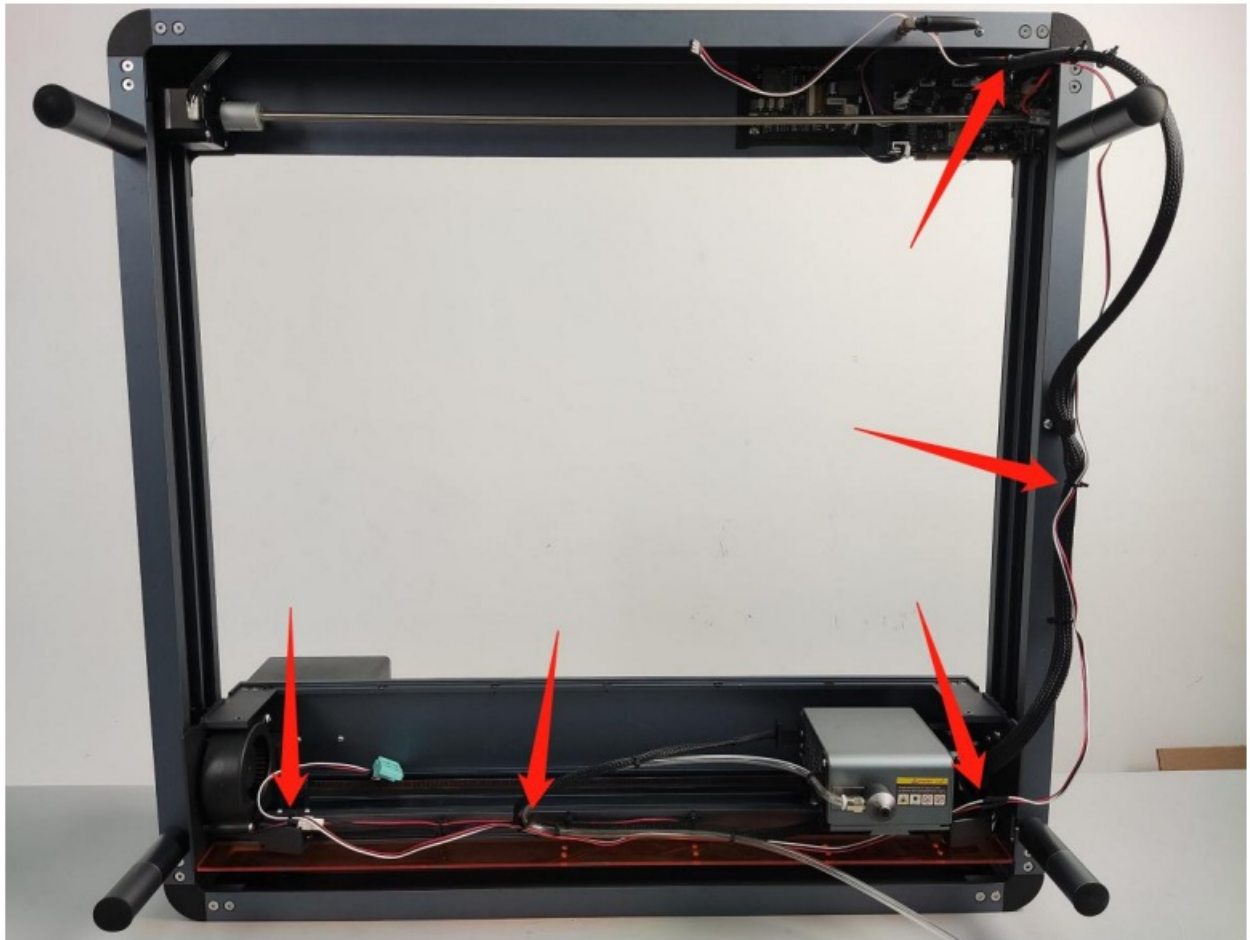


2. Install the X-axis limit switch

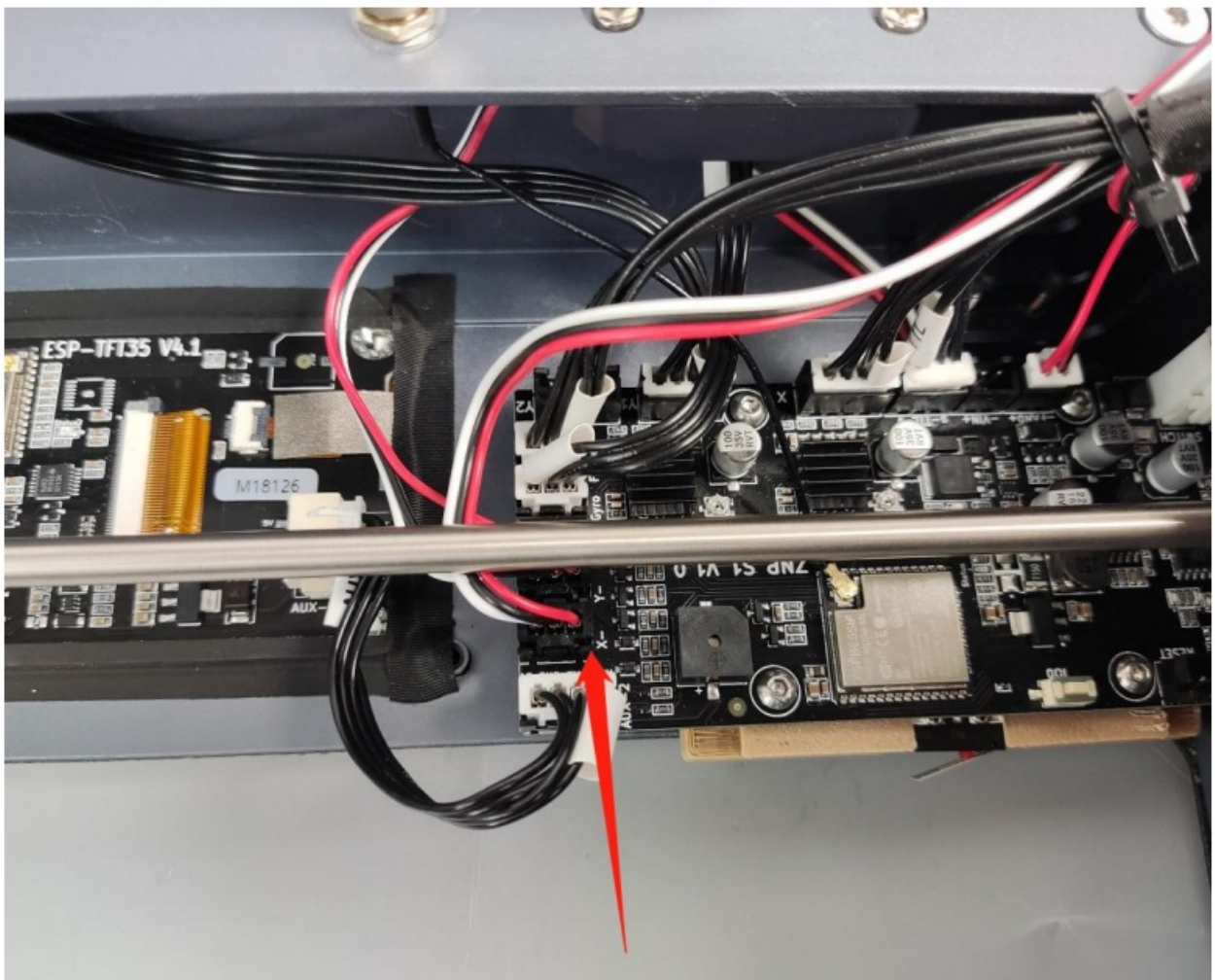
Use two M3*6 self-tapping screws to install the limit switch on the printed part.



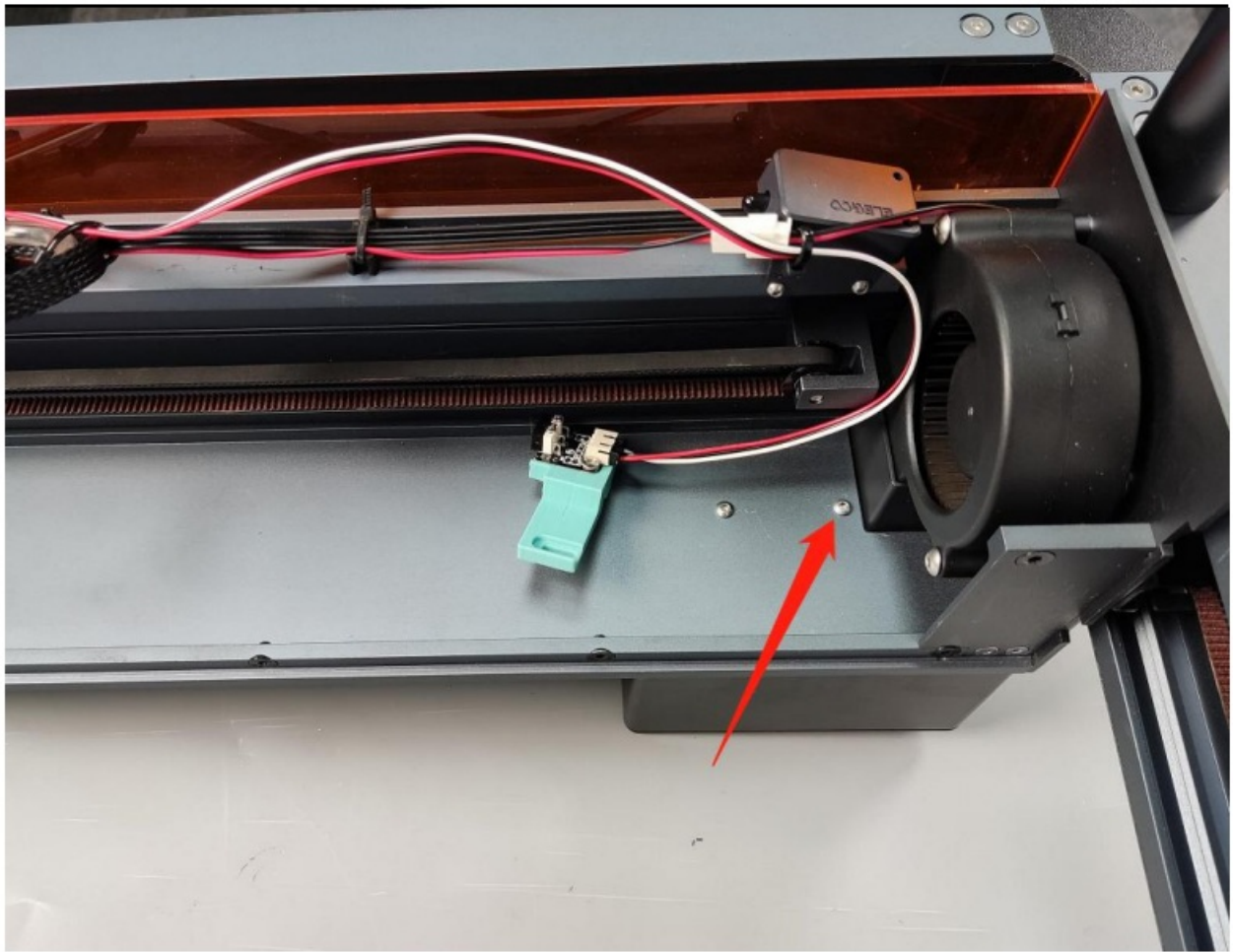
Install the 3P cable on the machine and secure the cable with cable ties at the red arrows.



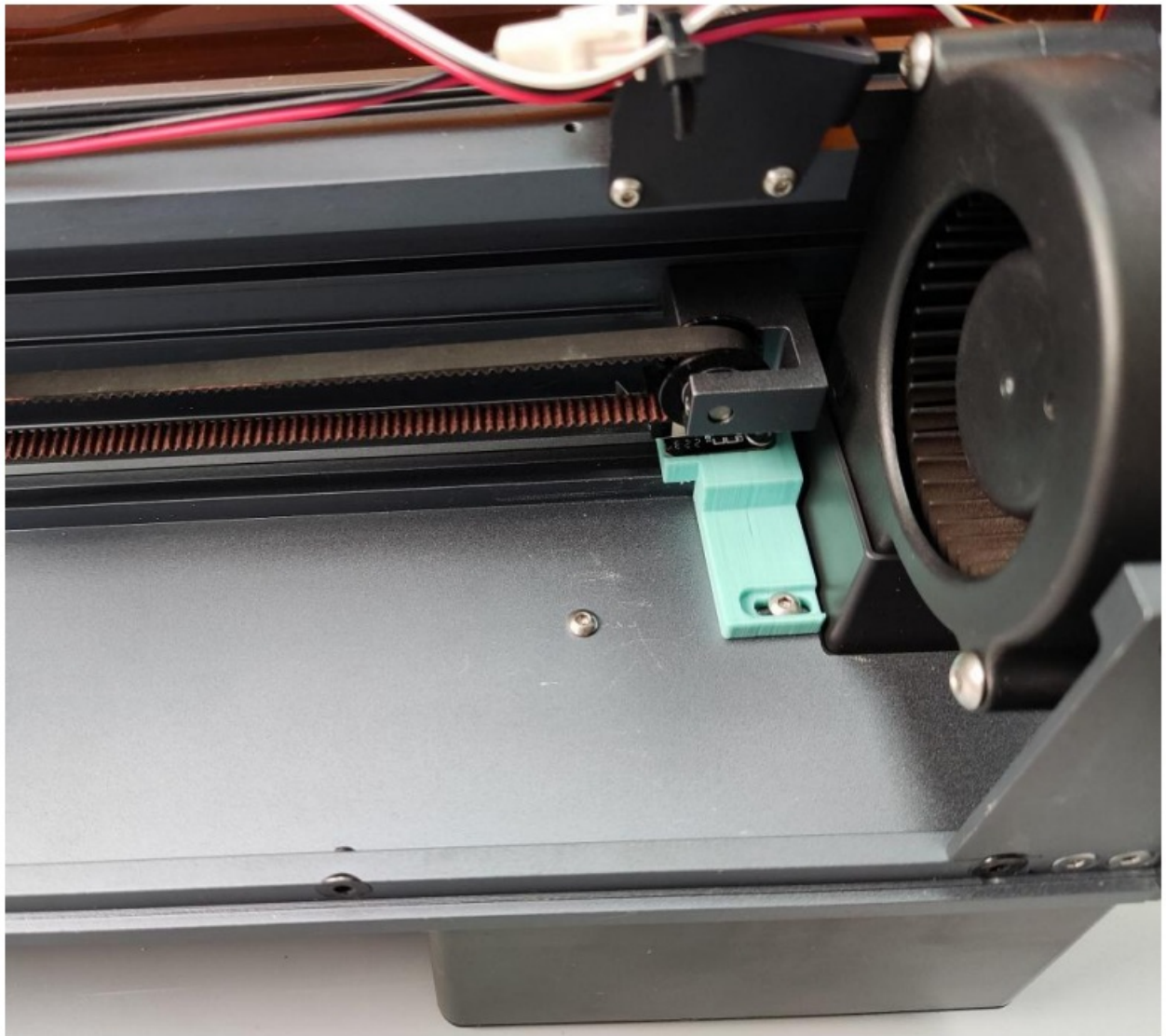
Connect the cable to the “X-” port on the main board.

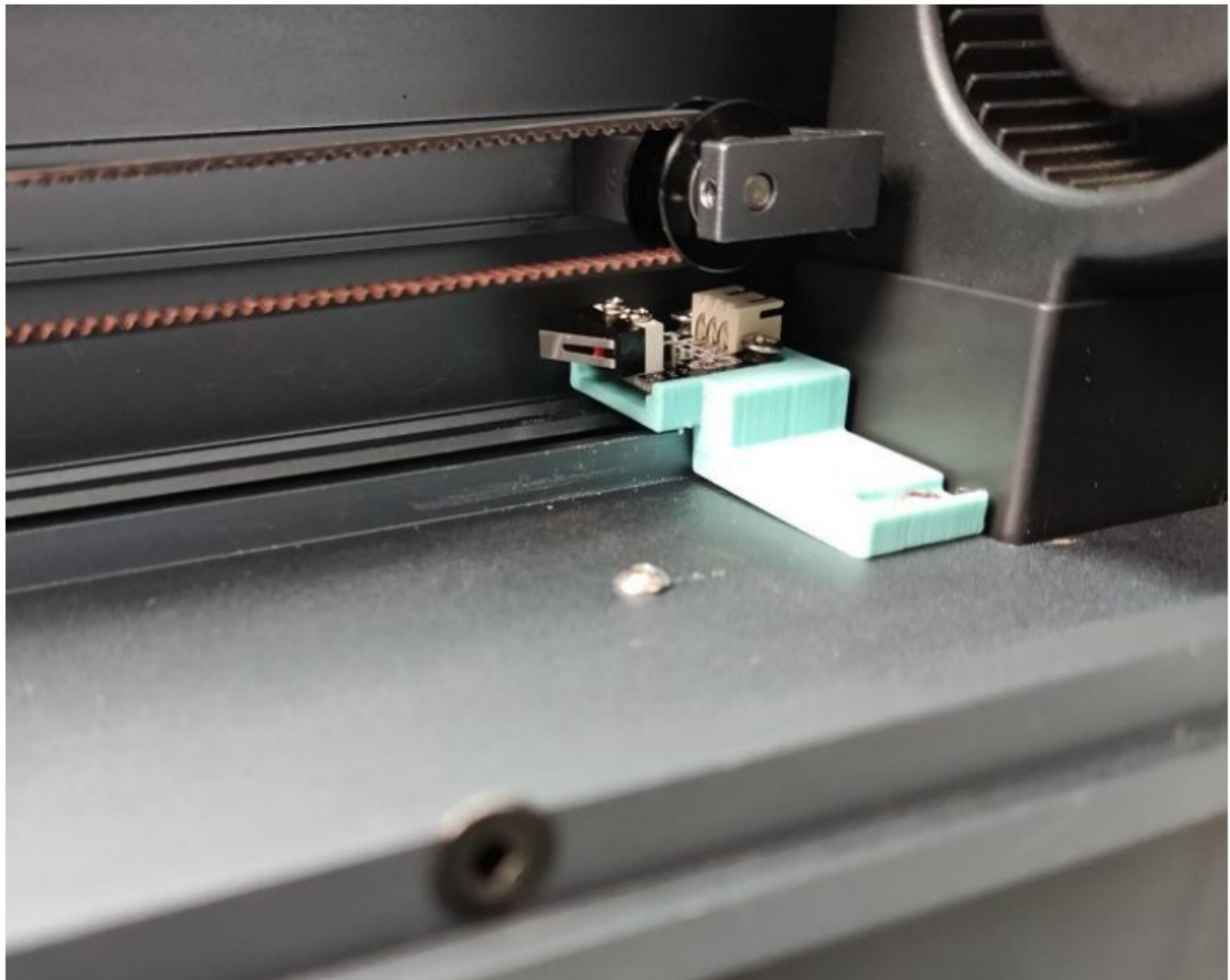


Then connect the cable to the limit switch and remove the screw that secure the air filter device.



Secure the printed part on one side to the V-wheel track, and use a PM3*8 screw to fix the other side.

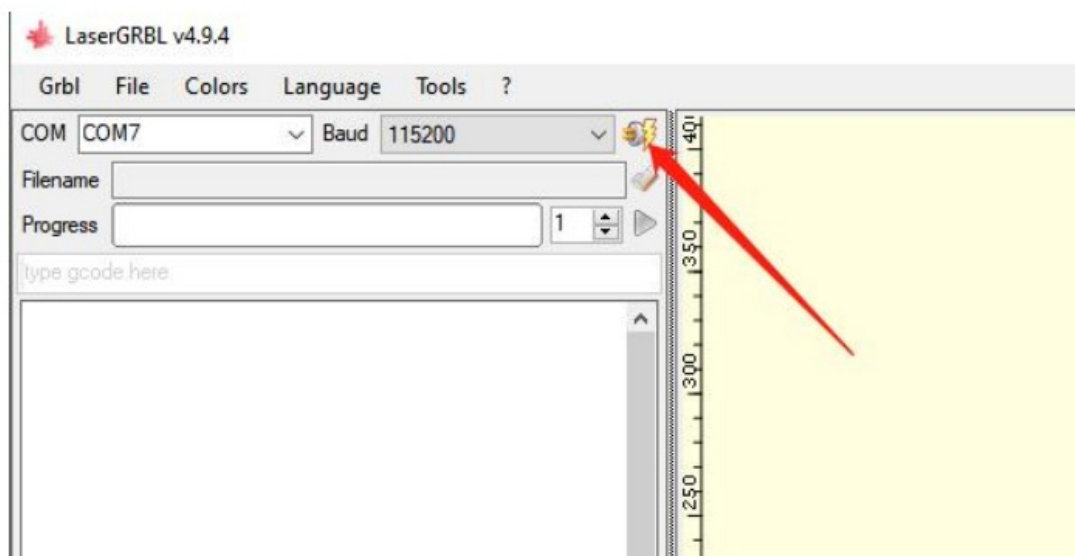




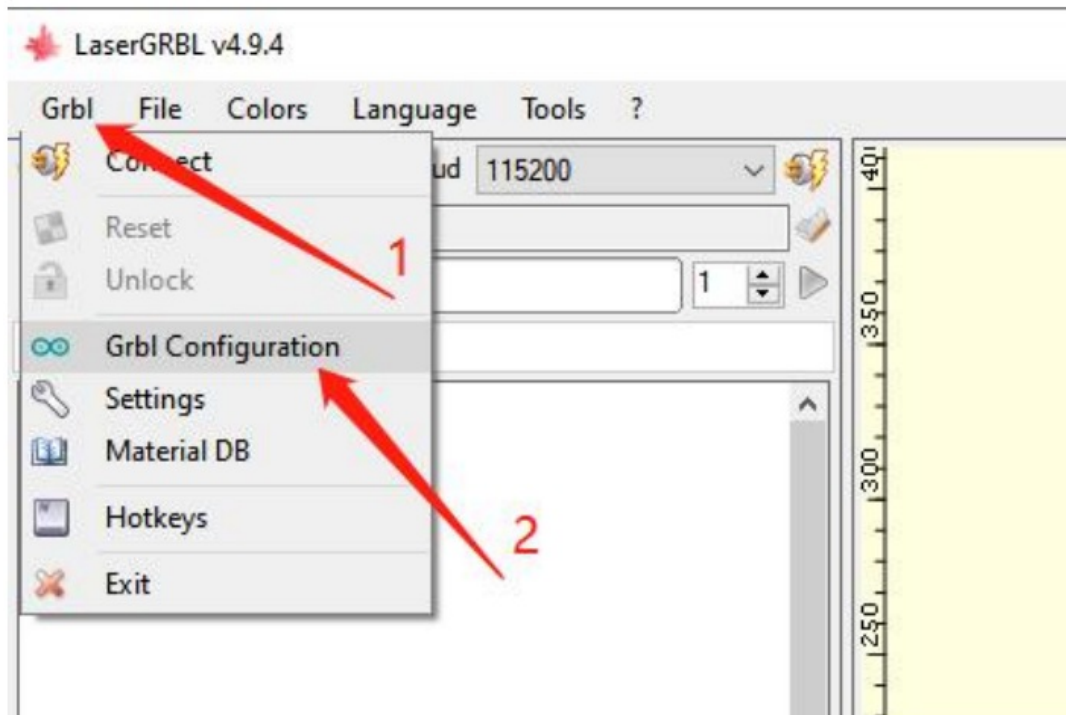
Software Parameter Settings

1. Setting of limit switch parameters in LaserGRBL.

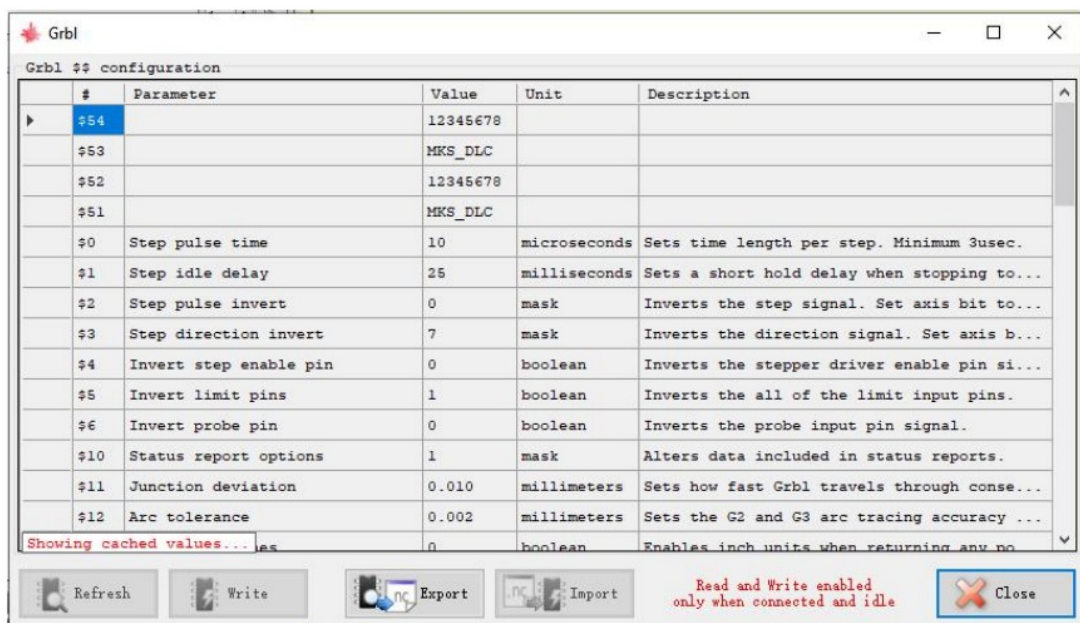
Open the LaserGRBL software, select the correct port number, baud rate, and click the Connect button. (the red arrow indicates the Connect button).



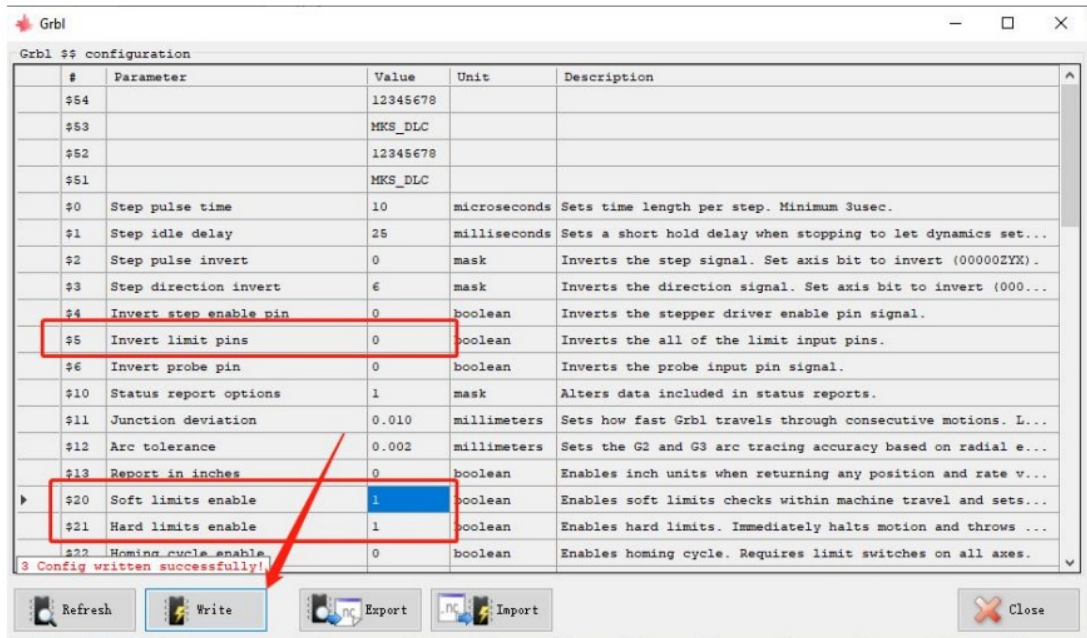
Click "Grbl" button on the toolbar, then click "Grbl Configuration"



The software will pop up a window as shown in the picture below.

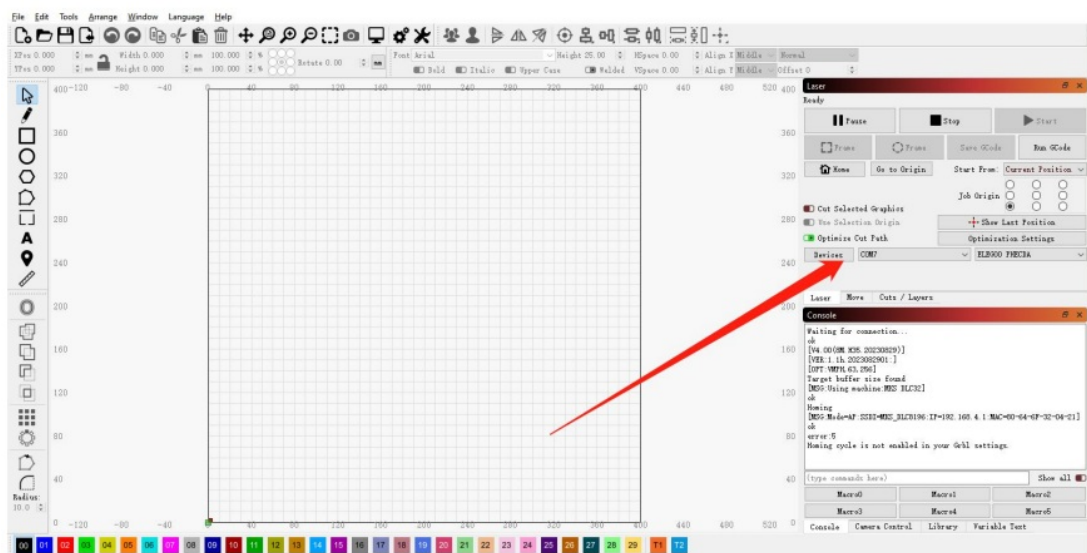


Change the value of \$5 in the red box to “0”, and change the values of \$21 as well as \$22 to “1” respectively. After the modification is completed, click “Write”, it will display “Config written successfully” and you can close the window.

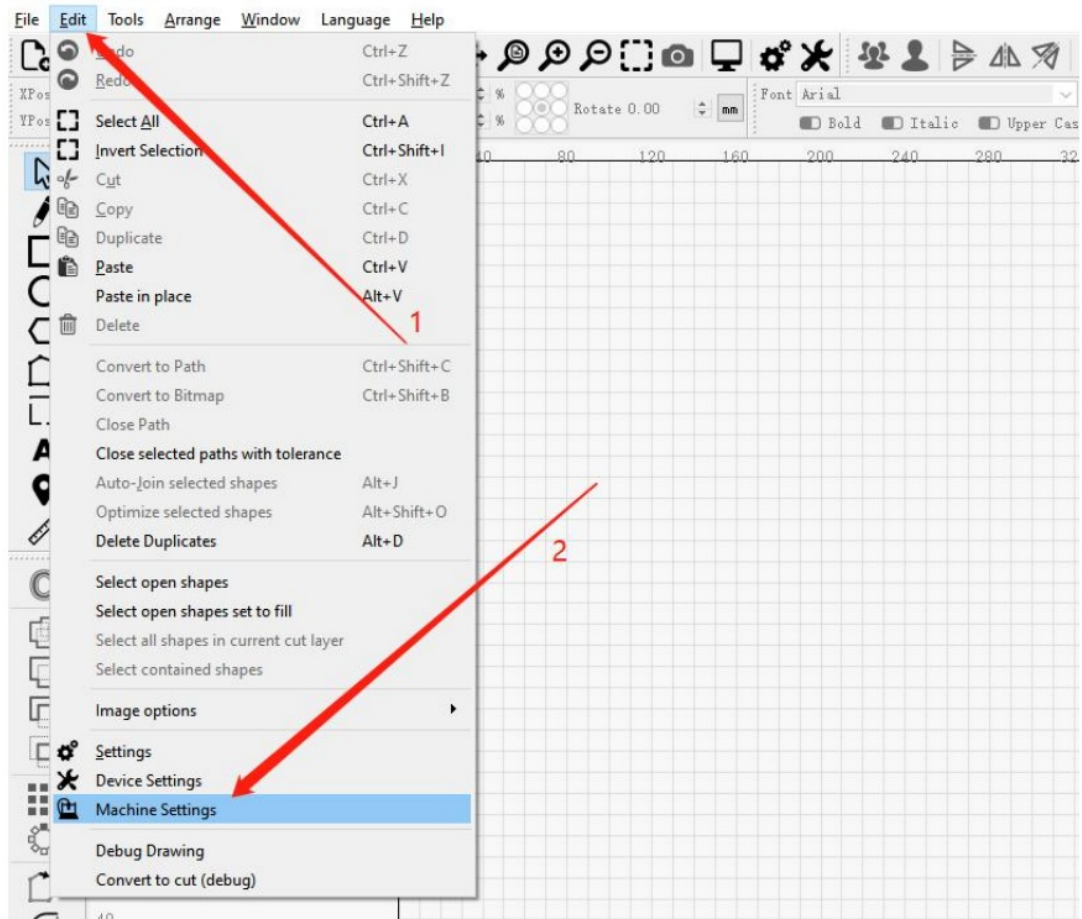


2. Setting of limit switch parameters in Lightburn.

Open the Lightburn software and select the correct com number to connect to the engraver machine.



Click "Edit" on the toolbar and select "Machine Settings". As shown in the picture below.



Change \$21 and \$22 to True respectively. Click “Outputs setup” to open the complete setup window. Change \$5 to False. Click Write and then click OK to complete the parameter settings.

Property	Value
General config	
Status: Position reporting (\$10)	Machine Position
Status: Show buffer data (\$10)	☐ False
Junction deviation (mm) (\$11)	0.0100
Arc tolerance (mm) (\$12)	0.0020
Report inches (\$13)	☐ False
Homing and Limits	
Soft limits (\$20)	☒ True
Hard limits (\$21)	☒ True
Homing cycle (\$22)	☐ False
Homing feed rate (slow) (mm/min) (\$24)	300.00
Homing seek rate (fast) (mm/min) (\$25)	1,000.00
Homing debounce (ms) (\$26)	250
Homing pull-off (mm) (\$27)	1.000
Max spindle speed (RPM), S-Value max (\$30)	1000
Min spindle speed (RPM), S-Value min (\$31)	0
Laser mode enable (\$32)	☒ True
Outputs setup	
Step pulse (microseconds) (\$0)	10
Step idle delay (ms) (\$1)	25
Step enable invert (\$4)	☐ False
Limit pins invert (\$5)	☐ False
Probe pin invert (\$6)	☐ False

Controller settings read successfully



Documents / Resources

	ELEGOO PHECDA Laser Engraver Limit Switch [pdf] Installation Guide PHECDA Laser Engraver Limit Switch, PHECDA, Laser Engraver Limit Switch, Engraver Limit Switch, Limit Switch, Switch
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References

- [ELEGOO: Best Consumer Level 3D Printers, Materials and STEM Products – ELEGOO Official](#)
- [User Manual](#)

