

SOVOL 3D

SV01 Pro

- ⌘ This guidebook is for Sovol SV01 Pro 3D printer.
- ⌘ Please plug the power cable into a three-hole power jack.
- ⌘ Detailed tutorial for are available in the TF card.

3D Printer User Manual

V1.0



Dear Consumers :

Additional resources and information:

This manual is designed for SV01 Pro owners to start their SV01 Pro printing journey. We still recommend all the SV01 Pro owners to read the manual carefully even if you are familiar with the 3D Printing technology, as there is lots of important information about the SV01 Pro for you to learn and help you get better printing experience. In this manual there are tutorial sdocument can be found on official website and group you can scan the QR-codes or click the link to get them.

Firmware Upgrade:

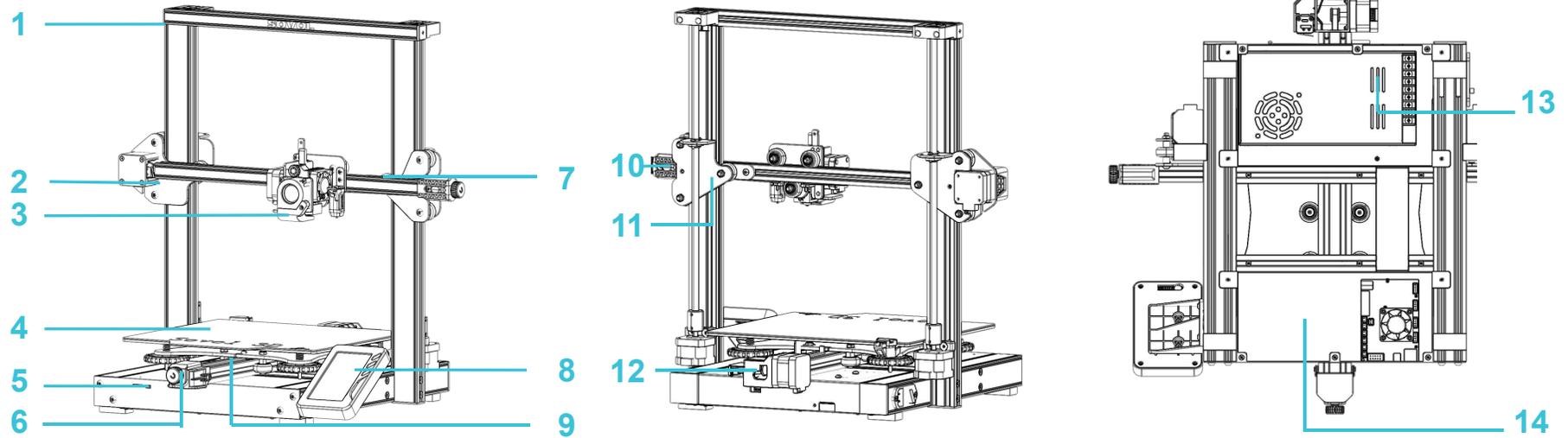
Please login the official website

<https://sovol3d.com/pages/download>, switch the language and select the relevant printer and model and download the required firmware, you can use it after the installation is finished.

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- Do not use the printer any way other than described here in in order to avoid personal injury or property damage.
- Do not place the printer in the environment with large vibration or other instability. The shaking of the machine will affect the printing quality of the printer.
- Please do not place the machine in inflammable and explosive materials or near high heat source. Please place the machine in a ventilated, cool and dust free environment.
- It is recommended to use the material recommended by the manufacturer to avoid machine damage.
- Do not use any other power cable except the one supplied. Always use a grounded three-prong power outlet.
- Please do not open the plastic cover during usage, otherwise the printing will be interrupted.
- Do not wear cotton gloves when operating the printer. Such cloths may become tangled in the printers moving parts leading to burns, possible bodily injury, or printer damage.
- Please wait a moment after the print is finished. And please wear gloves to take out the print by tools.
- It's not recommended to use the third party firmware or mainboard etc, or the warranty will be void.
- Clean the printer frequently. Always turn the power off when cleaning, and wipe with a dry cloth to remove dust, adhered printing plastics or any other material off the frame, guide rails, or wheels. Use glass cleaner or isopropyl alcohol to clean the print surface.
- Children under 10 years should not use the printer without supervision.
- This machine is equipped with a security protection mechanism. Do not manually move the nozzle and printing platform mechanism manually while booting up, otherwise the device will automatically power off for safety.
- Users should comply with the laws and regulations of the corresponding countries and regions where the equipment is located (used), abide by professional ethics, pay attention to safety obligations, and strictly prohibit the use of our products or equipment for any illegal purposes. Sovol will not be responsible for any violators' legal liability under any circumstance.



1. Gantry

2. X axis bracket

3. Extruder assembly

4. Hotbed

5. Machine base frame

6. Y-axis belt tensioner

7. X axis belt

8. Touch screen

9. Y axis belt

10. X axis belt tensioner

11. X-axis passive portion Kits

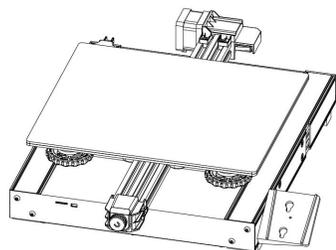
12. Y motor limit switch

13. switching power supply

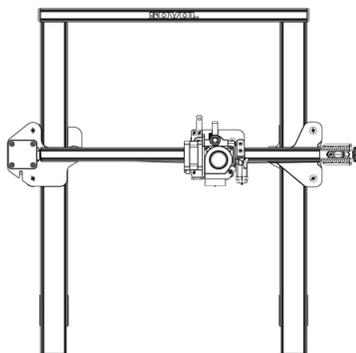
14. Metal chassis Kit

Basic Parameters	
Model	SV01 Pro
Software language	English
Print method	TF card, USB connection
Molding	FDM
Number of nozzles	1
Print size	280*240*300mm
Layer thickness	0.1~0.4 mm (Adjustable)
Printing speed	50-80mm/s
Nozzle diameter	Standard 0.4 (Adjustable)
Nozzle temperature	$\leq 260^{\circ}\text{C}$
Supporting materials	PLA/ABS/TPU/PETG/WOOD
Material diameter	1.75mm
Support file format	G-Code
Machine size	520*509*647mm
Machine weight	9.8KG
Package size	569*559*231mm
Package weight	12.9KG
Voltage	Input: 115V/230V 50/60Hz Output: 24V
Operation system	Windows, Linux, Mac
Power	350W
Display screen	4.3 inch

3. Package List



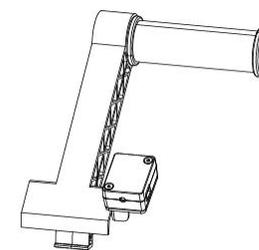
1 Base×1



2 Gantry×1



3 Touch screen×1



4 Filament holder×1

Tool List



1 Power cable



2 Screw pack



3 Wrench tool kit



4 Zip tie



5 Diagonal pliers



6 Needle



7 Teflon tube



8 Spare nozzle



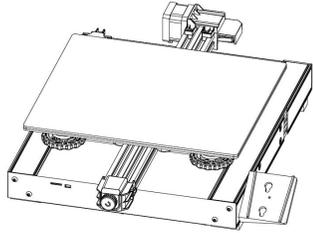
9 Spatula



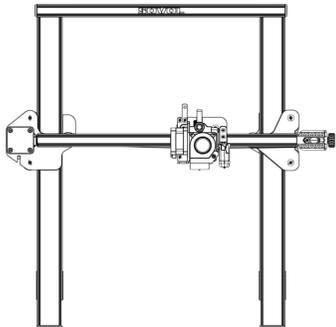
10 Card reader/TF card



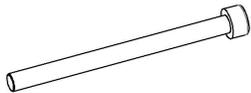
1 Install gantry components



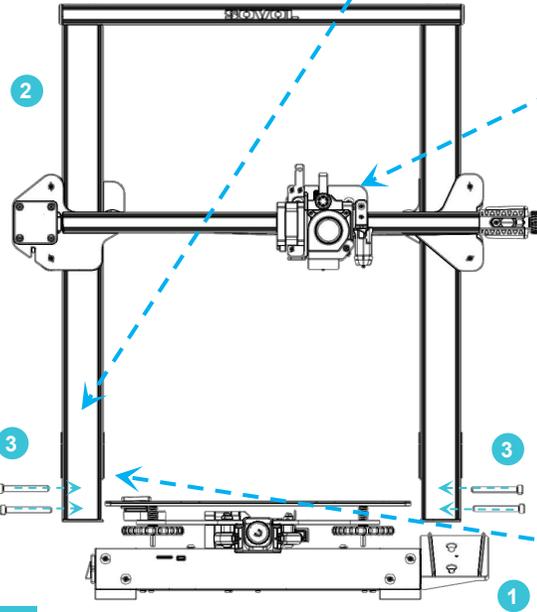
1 Machine base x1



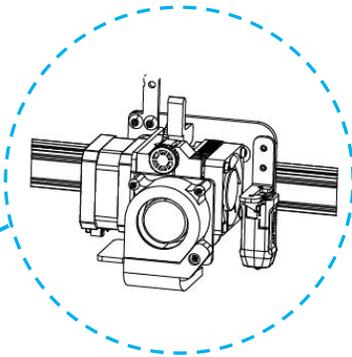
2 Gantry x1



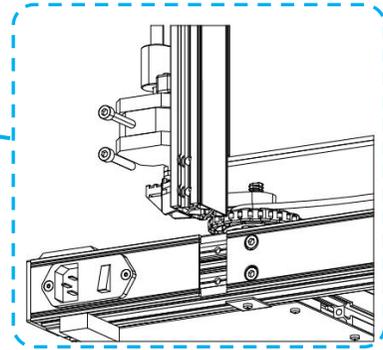
3 M5x45 hexagon bolt x4



★ 1. Rotate the couplers to raise the x-axis to the position shown in the figure, and lock the gantry assembly with M5x45 hexagon bolts on the base. (as shown in figure A)



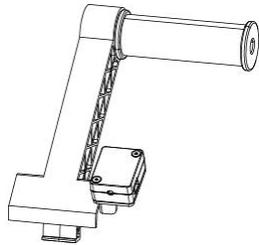
💡 1. The cables on the extruder assembly, including CR touch cable, extrusion motor wire, fan cable, nozzle thermistor and heating pipeline, shall be fixed on the extrusion motor mounting bracket with black tape. If it is disassembled, please fix it again before use.



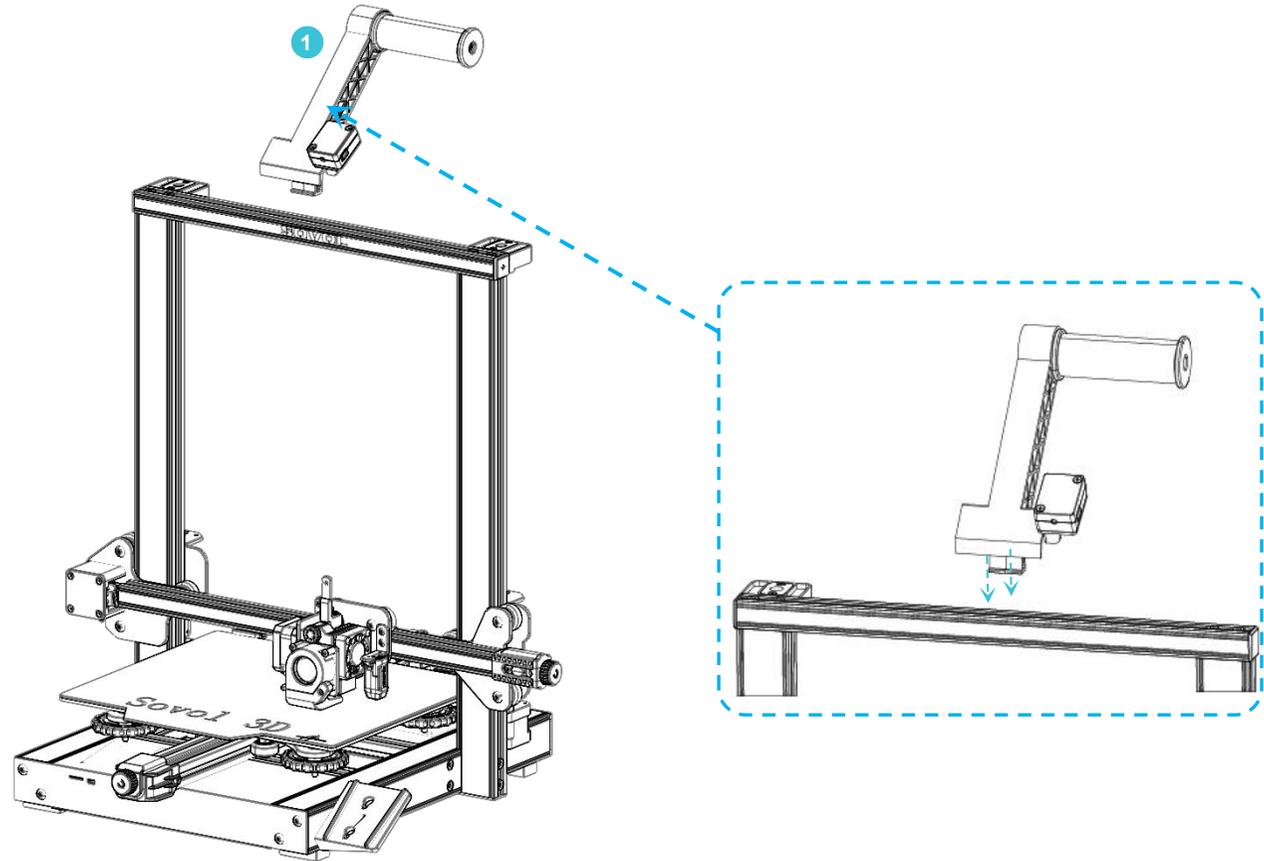
💡 3. Two Z-axis profiles, installed on the inner step of the Y-axis bottom profile.

2

Install the material rack



1 Filament holder×1



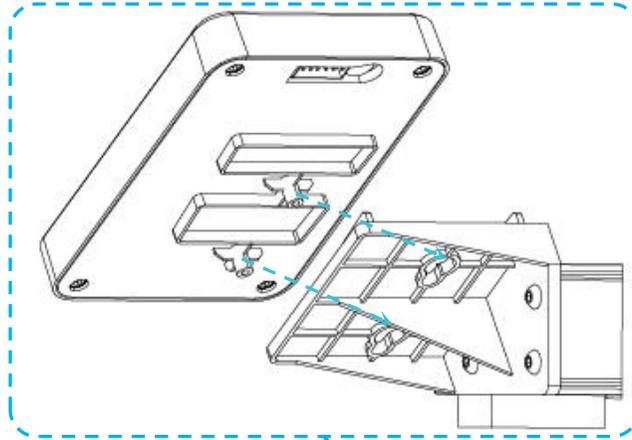
1. Put the filament holder vertically with the top profile of the gantry and check the position, press it to let it be clamped on profile.



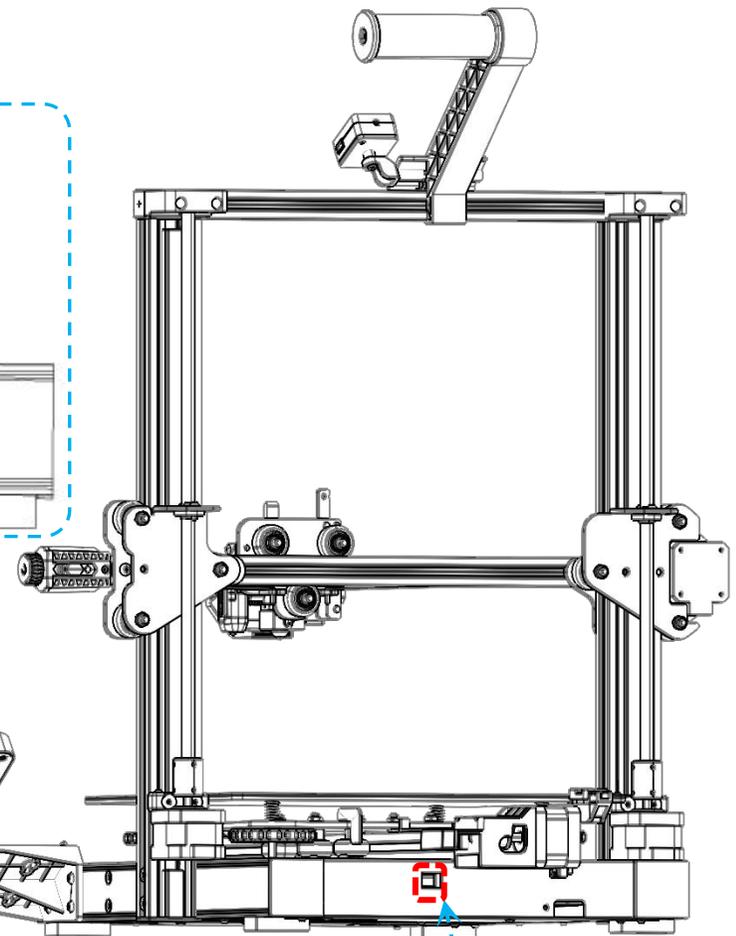
3 Install the touch screen



1 Touch screen assembly x1



★ 1. Fix the touch screen assembly on the screen holder.



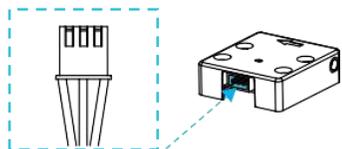
💡 **Tips:** Select the correct input voltage to match your local mains (230V or 115V).

4

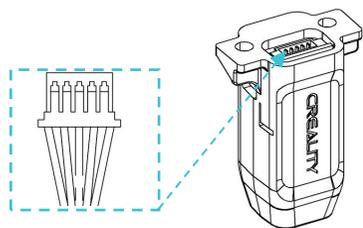
Equipment wiring



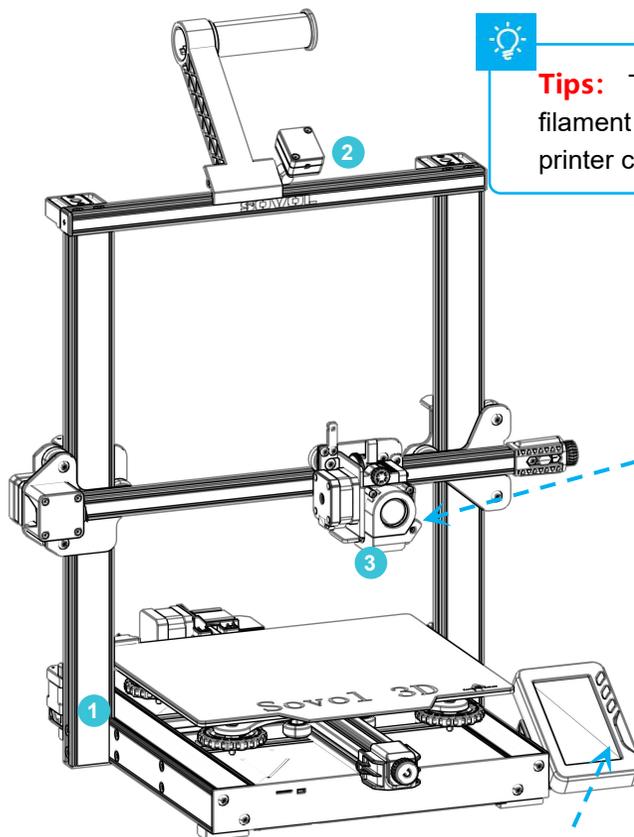
1 Power cable



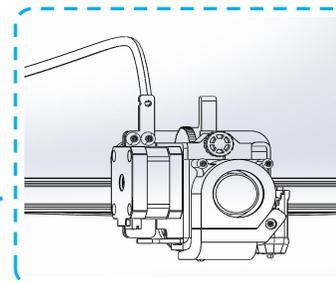
2 Filament sensor connection



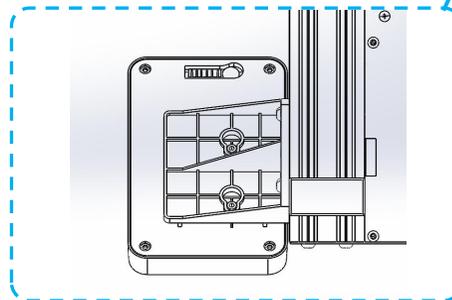
3 CR-Touch cable connection



Tips: The filament sensor must have filament inserted and detected so that the printer can print normally.



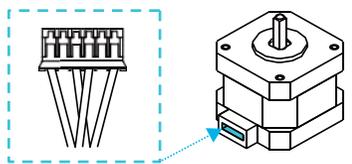
1. The wires on the nozzle assembly, including CR touch leveling wire, extrusion motor wire, fan wire, nozzle thermal and heating pipeline, shall be fixed on the extrusion motor mounting bracket with black rolled tape. If it is disassembled, please fix it again before use.



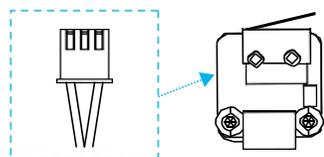
2. The touch screen line is connected with the main board through the metal plate opening of the base.



5 Equipment wiring



4 XYZ axis motor line



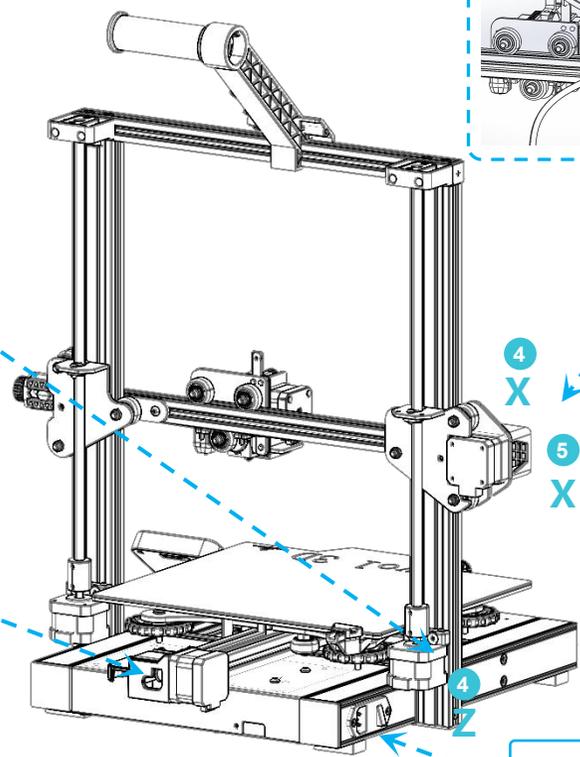
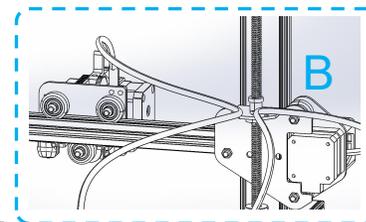
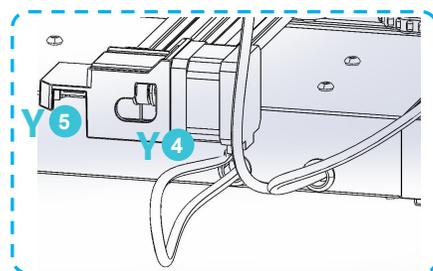
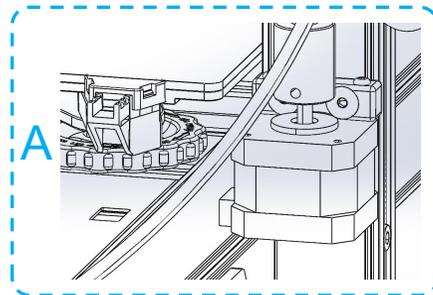
5 XY axis limit switch



1. The z-axis motor cable is connected with the mainboard through the metal plate opening of the base. (as shown in figure A)
2. The hot bed cable, Y-axis motor cable and limit switch cable should pass through the circular hole of the base and connect with the mainboard.



3. Use the zip tie, tie up the X-axis motor cable and the limit switch cable with the back plate through the hole on the back plate to make the clean wire management. (as shown in Figure B)



4. Connect the power cable.

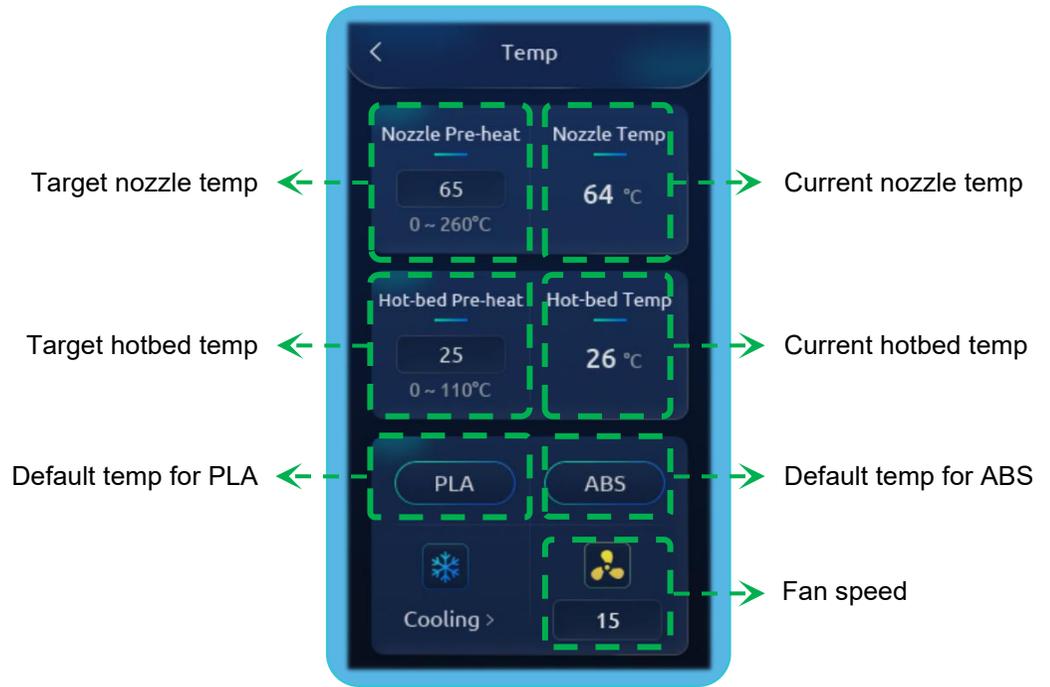
9. Interface Information



Click the nozzle temperature or hot bed temperature icon to enter the right interface to adjust the temperature



Click the sun/moon icon on the top of the screen to switch the theme day mode/night mode



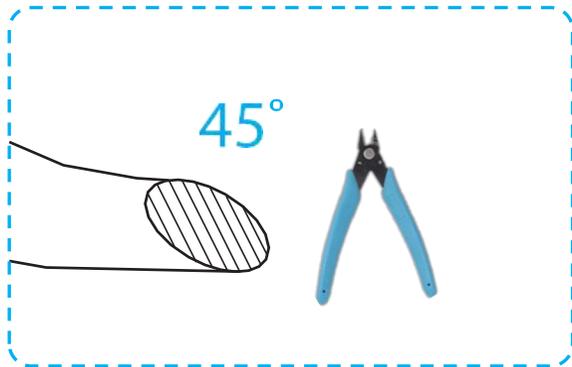
Note:

PLA preheat standard: nozzle temperature 200° , hot bed temperature 60° ,
ABS preheat standard: nozzle temperature 240° , hot bed temperature 70° .
If you want to use these settings, click PLA or ABS icon to get the default settings quickly.

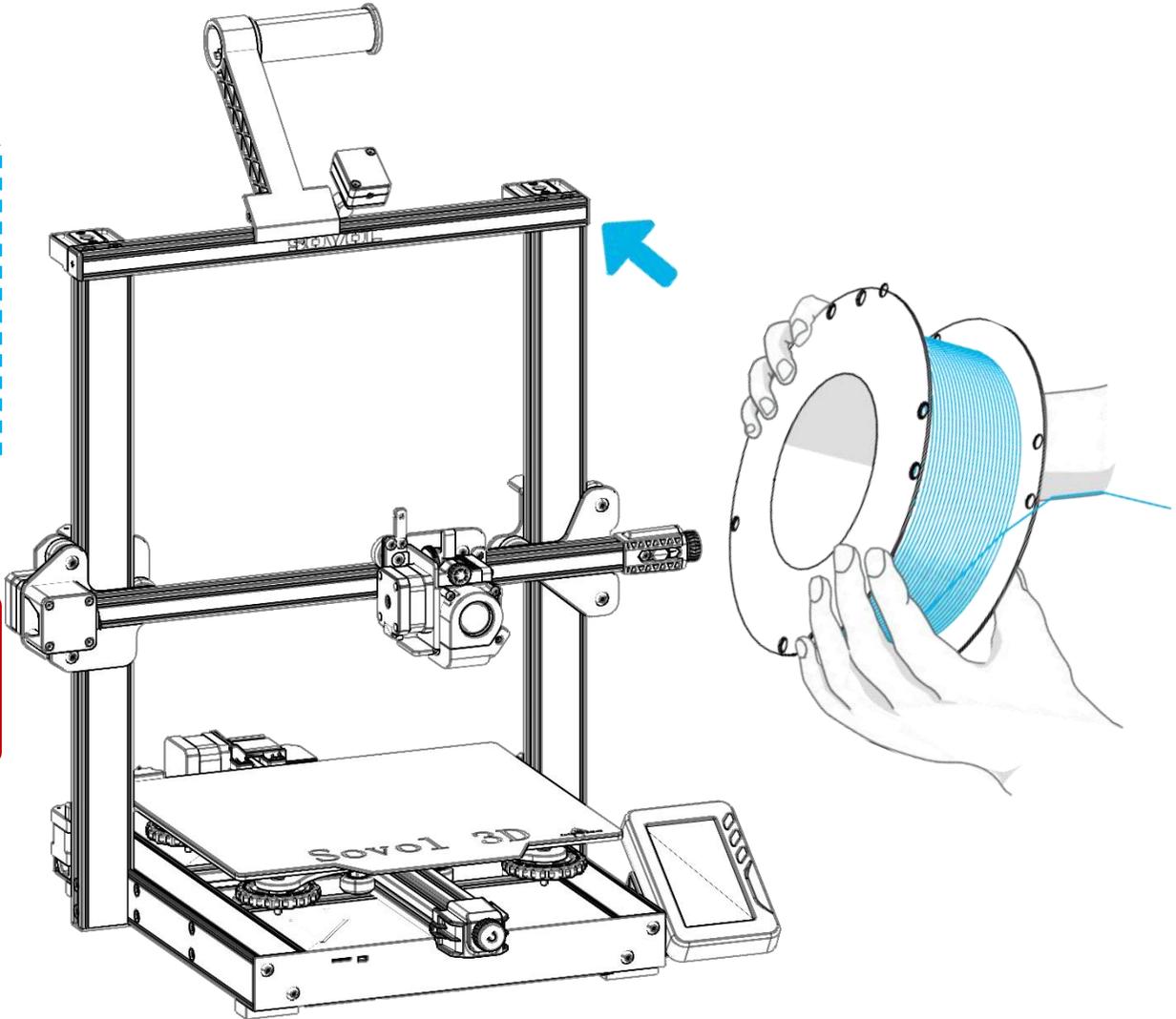
1. Click Leveling, the printer will start initial leveling, x y z axis will auto home, the CR touch will probe in the center.
2. When the CR Touch stop to probe, put a piece of A4 paper between the nozzle and the hotbed, click -Z or Z+ to move the extruder down or up to adjust the distance between the nozzle and the hotbed, click Save.(Drag the paper, When you feel the nozzle can scratch the paper slightly, that means the distance is perfect.)
3. After leveling, click AUX Leveling, then click 2, 3, 4, 5 to level the 4 corners in turns. Before clicking, put the A4 paper on the hotbed, adjust the distance between the nozzle and the hotbed by rotating the leveling wheels. It is suggested to repeat this step 2-3 times for perfect bed leveling. (To achieve the desired hot bed level, perform step 2 again after step 3, verify, and click Save.)
4. Last, click Auto leveling for 16 points leveling, it will probe the hotbed by $4 * 4$, the leveling data can be seen on the screen.



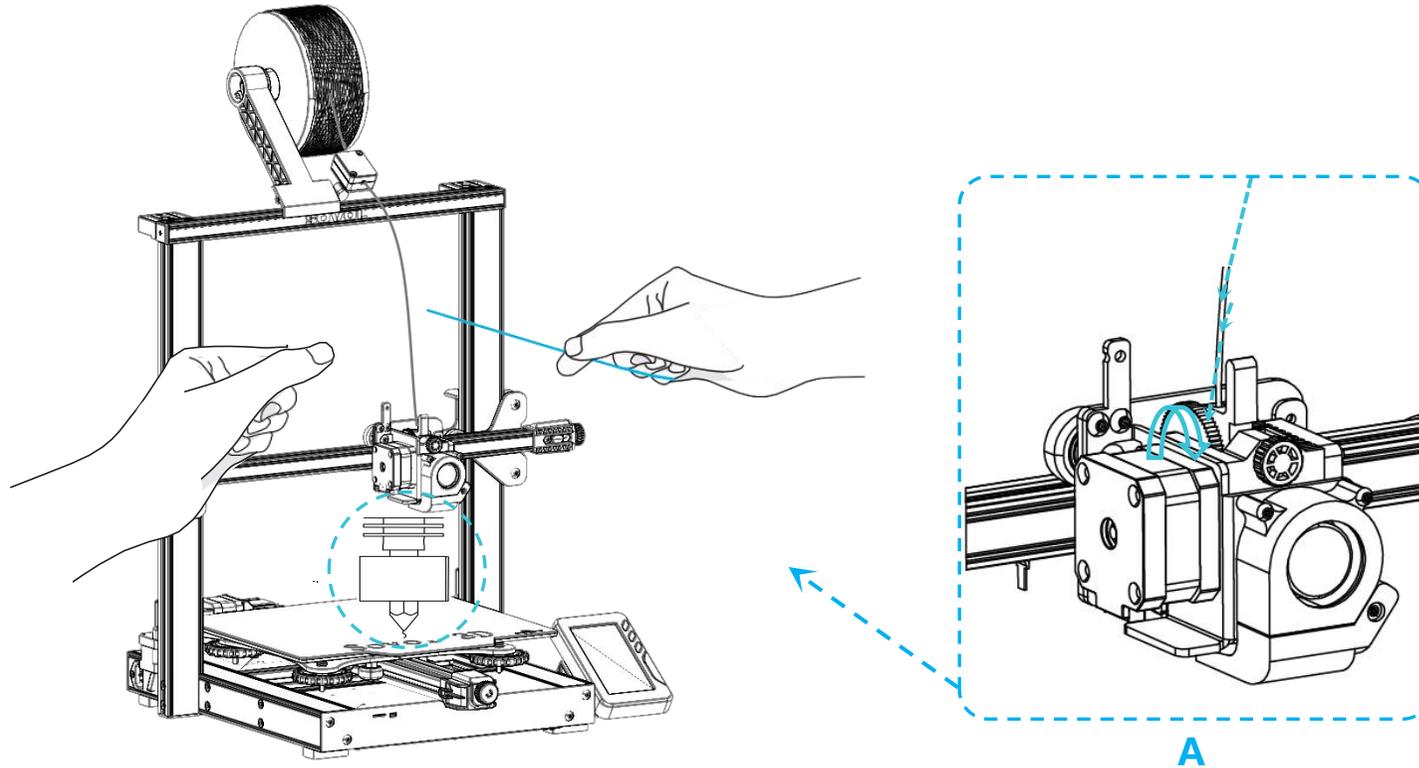
When you wait for the temperature to rise, hang the filament over the Filament Holder.



The filament holder and the filament sensor should be placed as shown in the picture to load filament smoothly.



When it reaches the target temperature, load the filament through the filament sensor into the small hole of the Extruder until it reaches the nozzle. If the filament flows out from the nozzle, it presents that the filament is properly loaded.



Q: How to replace filament?

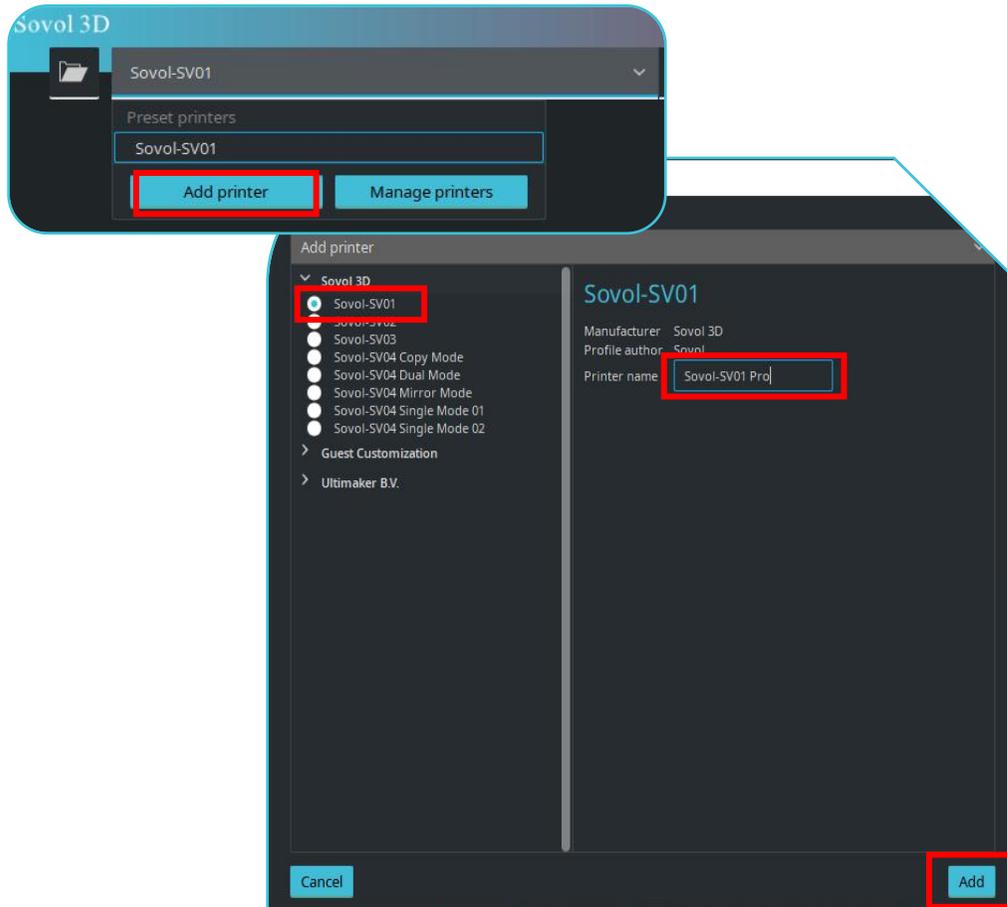
Method 1: After preheating the nozzle, push the filament forward a little bit, quickly draw out the filament, then load the new filament.

Method 2: Click “change filament” on the touch screen, wait the filament withdraw out automatically, then load the new filament.

13. Start Printing

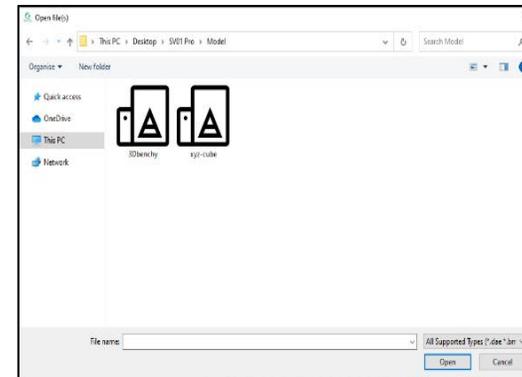
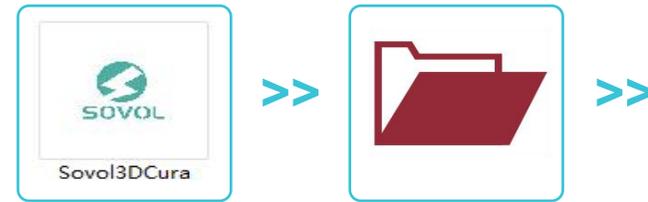
① Install Sovol3D Cura software

Select Other → SV01 → Rename the printer: SV01 Pro → Add Printer.



② Slicing

Open slicer → Import (Open file) → Select the file → Click slice → Save to file (Save to the TF card)



Note: File names must be Latin letters or numbers, not Chinese characters or other special symbols.

③ Printing

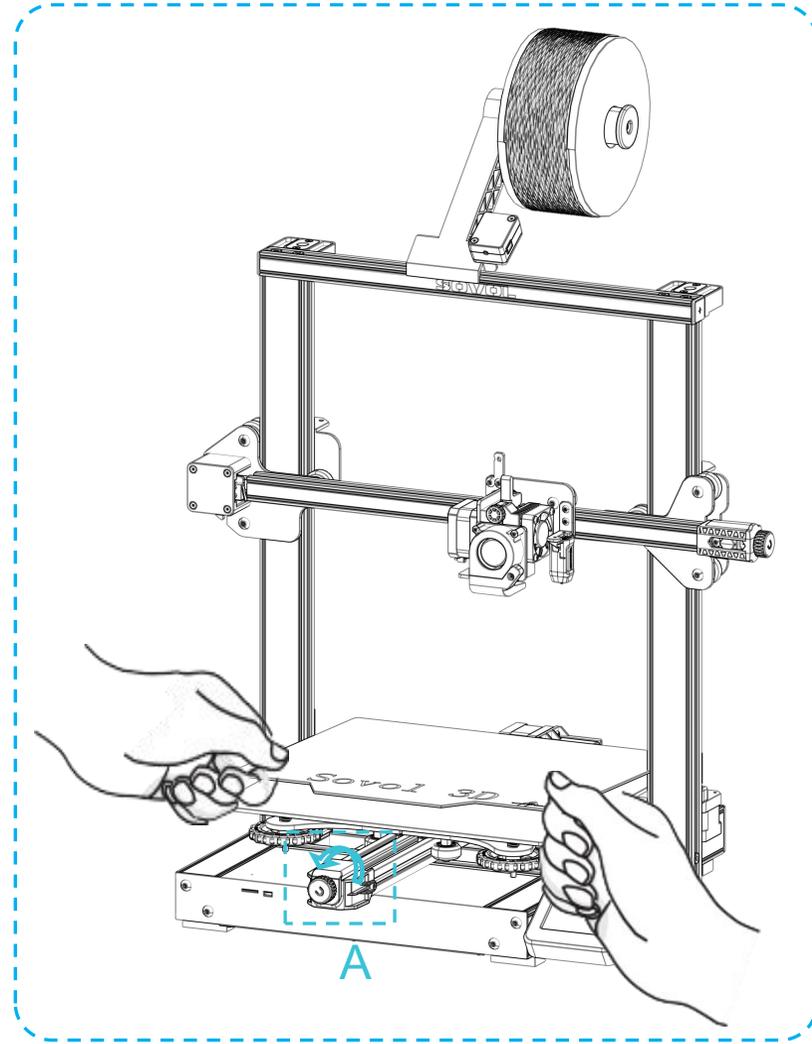
Select The File → Start Printing (File name only supports English numbers).



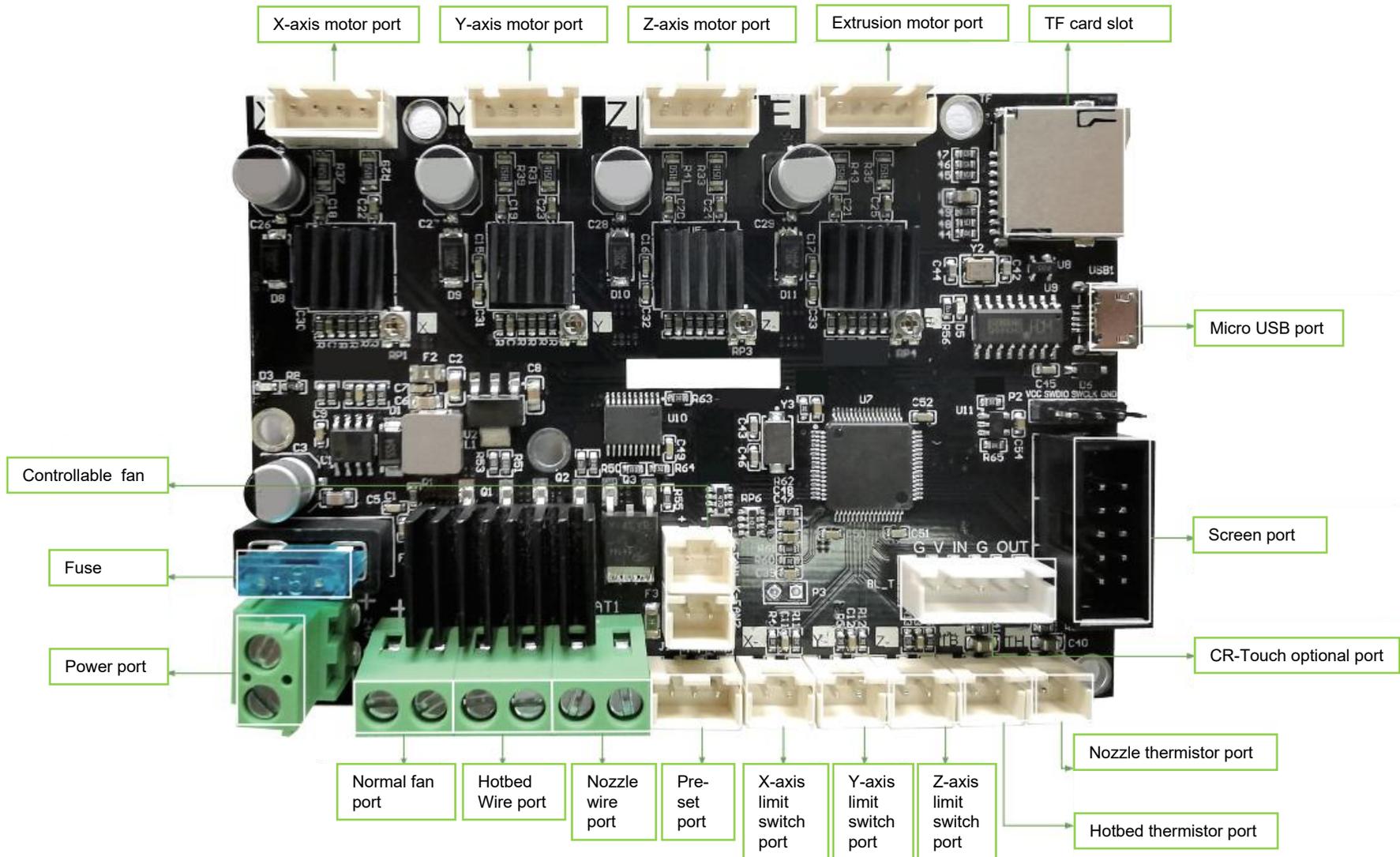
- Warning:
- ① Do not save more than 20 files in the TF card.
 - ② Do not put any other files except Gcode. Otherwise, it may cause unstable operation of the machine or printing failure.
 - ③ Please don't insert or remove the TF card while the machine is on.
 - ④ The TF card must be 2G~ 16G.



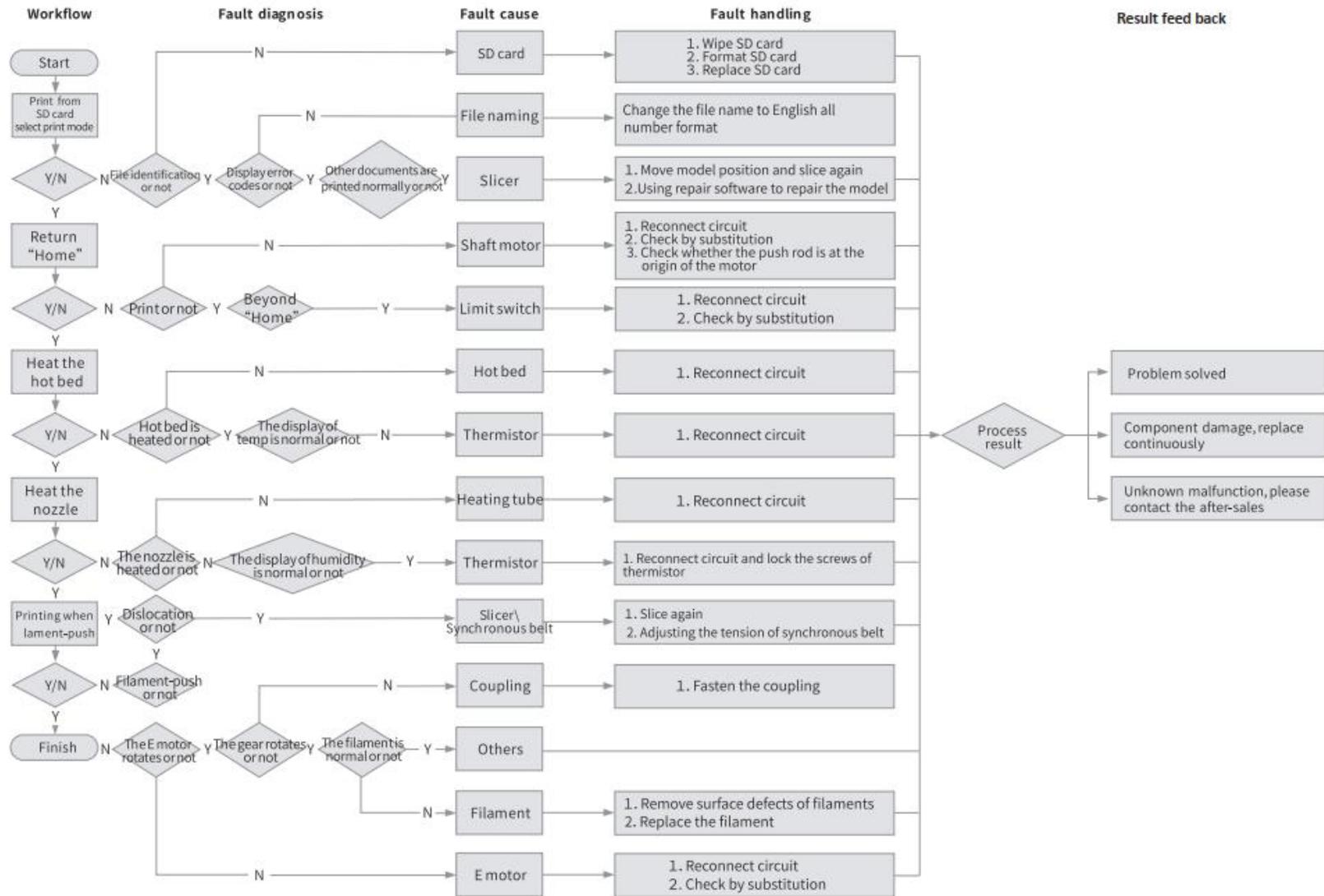
1. Level the bed carefully to prevent scratching the bed with the nozzle.
2. If the belt is loose, turn the belt tensioner to adjust the tension of belt, the belt can't be too loose , can't be too tight, or the belt can break.(As shown in Figure A)
3. Use alcohol to clean the build plate surface if it is necessary.
4. The machine will restart after power interruption and pop out the “resume printing” button. Please clear the redundant filament between the nozzle and model before resumption to avoid printing failure.



16. Circuit Wiring



17. Trouble Shooting





Sovol Support Group



Sovol Official Website

SHENZHEN Lian Dian Chuang Technology CO., LTD.

Official Website: www.sovol3d.com

E-mail: info@sovol3d.com

