Selpic

STAR A MINI 3D PRINTER
USER MANUAL
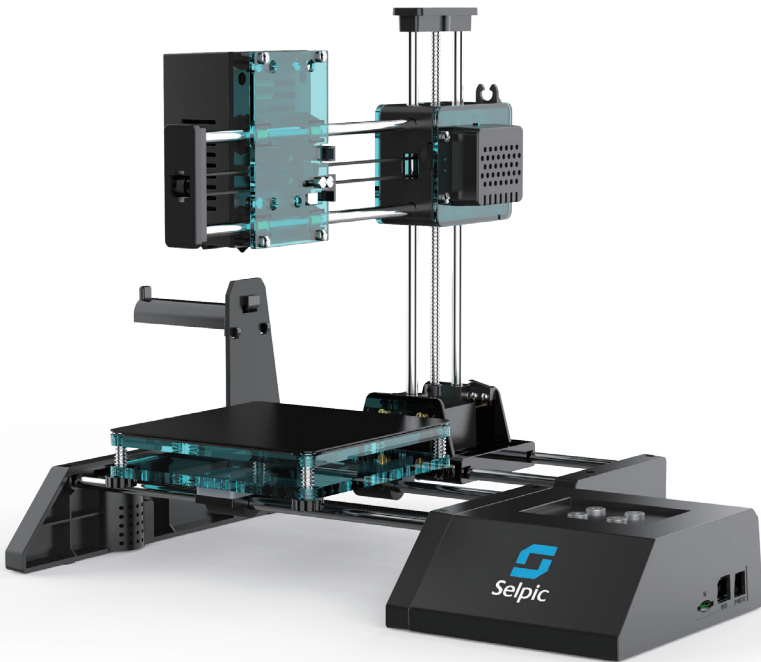
CONTENT

SAFETY WARNINGS AND GUIDELINES

Before installing and using this printer, make sure to read the following contents.
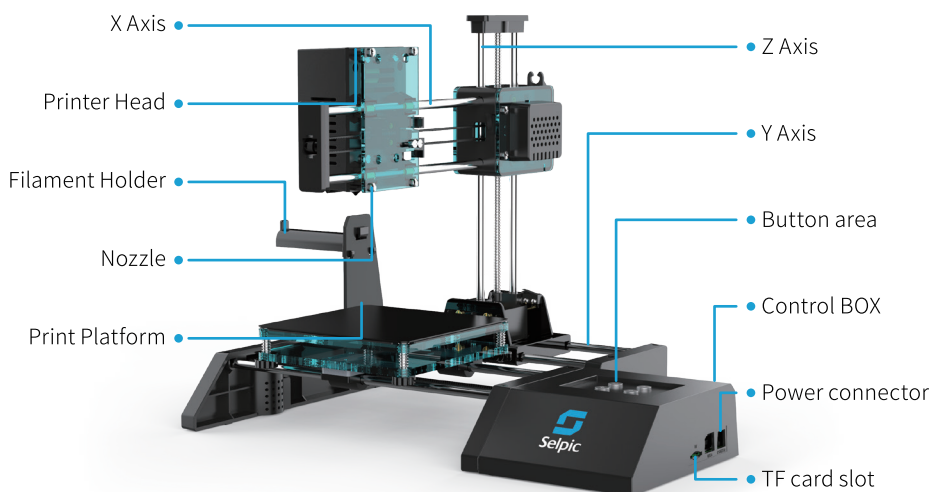Please do not use this printer with the methods not described in this user manual.

1. Take care to avoid touching hot parts, including heat blocks, extruder nozzle,
filament and the heated print platform.

2. Keep the printer and all accessories out of reach of children.

3. Please use the power cord supplied with this printer.

4. This printer applies to 110 - 240V power supply.

5. Do not pull or twist the black cable at any time.

6. Do not reach inside the printer during operation.

7. Always allow the printer and extruded filament to cool before reaching inside.

8. Do not install the printer on an unstable surface where it could fall.

9. When printing with PLA filament, the plastics will create a light odor. Please place
the printer in a ventilated, cool, dry area.

10. Do not expose the printer to water or moisture. If moisture does get in the printer,
please unplug it from the power outlet and allow it to fully dry.

11. If the printer discharges smoke when printing, please unplug it from the power
outlet immediately to stop use.

INTRODUCTION

Thanks for purchasing mini 3D printer. It' s a 3D printer machine for beginners. Enjoy
the happiness of creation.

PRODUCT OVERVIEW

Main Part:

X Axis

Printer Head

Filament Holder

Nozzle

Print Platform

Z Axis

Y Axis

Button area

Control BOX

Power connector

TF card slot

BASIC PARAMETER

Nozzle Diameter	0.4mm	Print Material	PLA
Extruder Temperature	180-250°C	Melt-down Temperature	PLA：180°C
Recommended Print Speed	30~40MM/S	The maximum printing speed	60MM/S
Compatible Systems	Windows, Mac	Layer Thickness	0.05~0.3mm
File Format	G-code	Connection Type	TF card, USB
Power Input	100～240V, 50/60Hz	Slicer Support	CURA
Working Temperature	5°C～35°C/ 40°F~95°F	Maximum Voltage	12V

PACKAGE CONTENT

| No	Name	Qty
1	Printer base	1
2	X, Z Axis, Print head	1
3	Control Box	1
4	Filament Holder 1	1
5	Filament Holder 2	1
6	Power Supply	1
7	Screw Driver	1
8	Screws	2
9	PLA 10M(color random)	1
10	TF card	1
11	Card reader	1
12	USB cable	1
13	Manual	1

## INSTALLATION

1. Install the X, Z Axis set to the Printer Base.
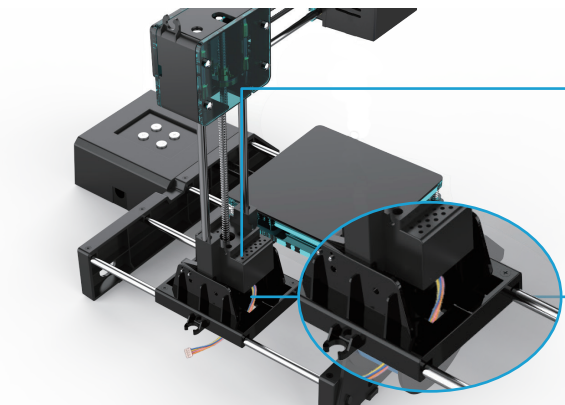
① Insert the X and Z-axis modules into the bottom Z-axis base through slots.

② Pass the Z-axis motor wire through the square hole which at the bottom of the Z-axis base.

2. After inserting the X, Z-axis module into the base, use two screws and nuts to pass through the small holes on both sides to fix the module on the Z-axis base.
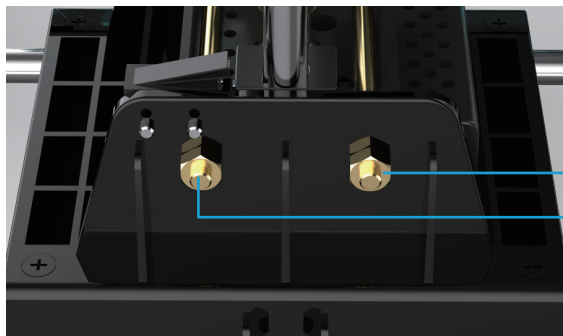
Tighten the screws and fix it with nuts.

3. Take out the Z-axis motor cable from the bottom of the Z-axis base and connect it with the control box plug-in cable.
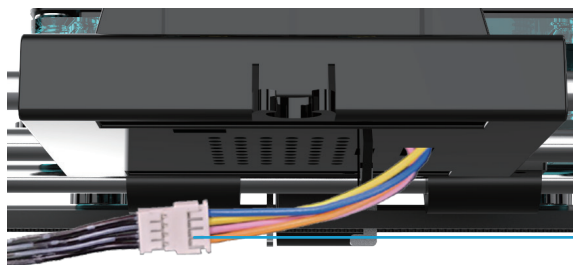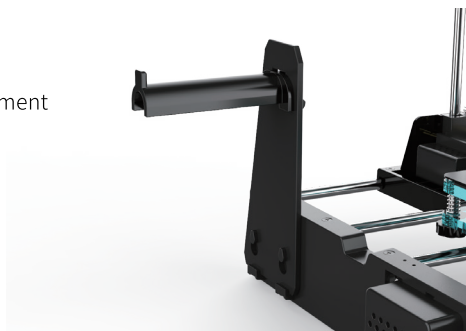
Z-axis motor End-to-End docking.
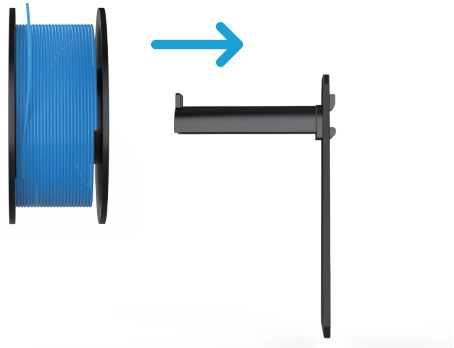
4. Install the filament holder as below.

Important Notice: This filament holder can only hang on 250g weight filament.
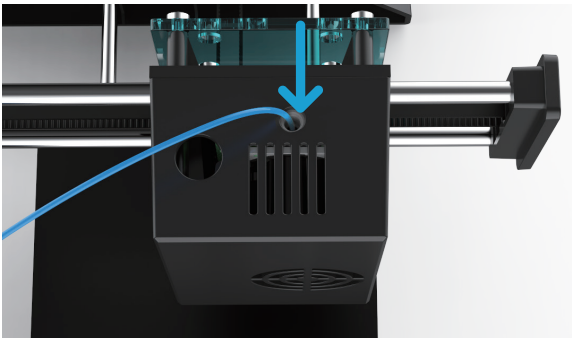
Insert and fix the filament holder into the two buckles.

5. Hang the filament on the holder.

6. Pass the filament through the hole above the print head. After the extruder heated, push the filament into the hole until the filament comes out from the extruder.

INTRODUCTION OF STARTING UP

1. Power On

Insert power supply to the power port of the printer control box. After powering up, the button ⊙ will light up.

(Note: If printing is finished or there's no need for use for a long time, please unplug the power supply to power off).

2. Slicer Software Installation and Set Up

Create your own G-code file using other open source programs, such as Cura. These programs use the printer's specific information to generate a G-code file.

PRINTING

1. Platform Leveling
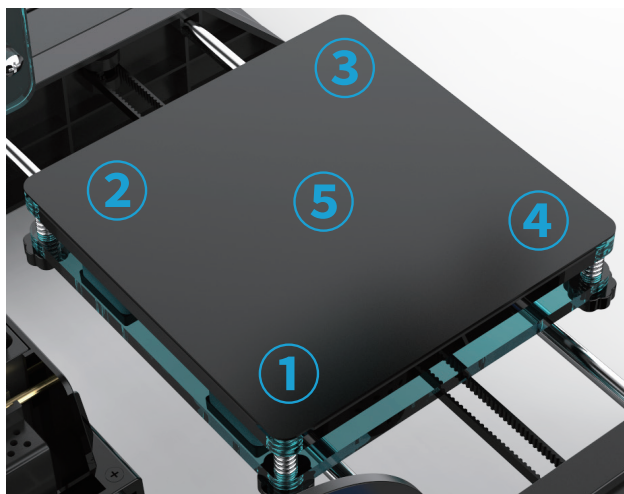
(1) Short press the home button ⌂ , the ⌂ button light will flash and home the extruder to the default position. After the platform is reset to zero, the indicator light stops flashing.

(2) Press and hold the ⌂ home button for 5 seconds again, the printer will enter the leveling mode. The ⌂ button light will continue to flash until finish the whole leveling process.

(3) In the leveling mode, manually turn the nut under the platform so that the distance between the platform and the nozzle can just be passed by a piece of A4 paper, and can clearly feel the resistance brought by the platform and the nozzle when the paper moving. At this point, the first point leveling is complete.

(4) After the first point is leveled, short press the ⌂ home button, the print head will move to the next point, repeat the operation in (3).

(5) After the printer has finished leveling of all 5 points, it will automatically exit the leveling mode. The button light will no longer flashes, and complete the leveling process.

2. Load Filament & Feed

(1) Click ✚ button, the button light turn on and flash at a fast rate (take for 1 minute), the nozzle is heating.

(2) After the extruder heated up, the light will flash slowly. Add the filament into the tube, push it slightly into the extruder until the filament comes out from the extruder. Then press the ✚ button to complete the extruding process.

Precaution: Make sure the distance between the nozzle and printing bed is 3cm at least. If not enough space, press the button ⊙ for 3 seconds then release hand, Z axis will go up 1cm (when the printer has stopped printing, press ⊙ for 3 seconds then release, every time the nozzle will go up 1cm, users can decide the height).

3. Print

Click ⊙ button, and the button light flashes regularly, printing starts (the Printer will choose the latest G-code file to print automatically).

4. Pause/Restore

During printing, Click ⊙ , the button light stops flashing, then printing paused. If need to continue print, Click ⊙ to restore, the button light flashes again, the printer goes back to print.

5. Stop Print

If you want to stop print during printing, long press button ⊙ for 3 seconds then release, the printer will stop printing, then printing will be cancelled.

6. Unload Filament, Retract

If users want to change filament or stop the printer from working for quite a long time, then you need to unload the filament, Click ━ button and draw out the filament. (If the printer stopped printing for more than 5 minutes and extruder become cold, then need to wait for 1 minute to reheating before retracting).

After print,easy to take off the object.

High quality filament which is preferred to be used.

Various types of filament are available on the market, and the quality is much different too. poor quality filament may cause broken or nozzle jam, Please choose high quality filament.

⚠ Safety Warning

Extremely Hot! Keep your fingers away from the NOZZLE and BLACK INSULATOR when the printer is working as temperature in this area reaches over 200 Celsius . Always be sure to keep your hands away from moving parts when it is working.

MAINTENANCE

1. Do not use the methods that are not mentioned in this manual to disassemble or modify this printer, to avoid damage to this printer or may cause other serious accident.
2. When the power is off , regularly clean the printer with a piece of cloth to wipe off dust and residue, if the cloth is wet , do not use inflammable liquid to contact the inner circuit to avoid fire or electronic shock.
3. When printing is finished, clean the residue in nozzle and extruder , to avoid nozzle choking for the next printing.
4. Recommended temperature for working environment is 5°C - 35°C. Please do not air the printer body with a fan when the printer is working .
5. Recommended humidity for the working environment is 30% - 90%.

FAQ

Q1: Why is the printing model not adhesive to the printing bed?

A1: The nozzle is too far away from the bed, the proper distance between the nozzle and bed is the thickness of a piece of A4 paper.

Q2: Why the filament doesn't come out from the nozzle?

A1: Check the filament feeder. If it' s an external gearfeeder, then observe whether the gear rotates or not. If it' s built-in stepper motor feeder, then to observe if the motor is working with a little sound. Otherwise, check if filament feeder is connected to it' s main board well.

A2: Check temperature. Printing nozzle temperature of PLA material ranges from 180-230°C.

A3: Check if the nozzle is blocked.

Heat the nozzle to 230°C for PLA, push the filament gently, if there is still no filament come out, then need to disassemble the nozzle, clean or replace it.

A4: Check if nozzle is too close to platform, if so, the filament can not come out, so adjust the distance between nozzle and platform with a piece of A4 paper.

Q3: The problem of print model misplaced?

A1: The model did not slice properly, need to re-slice or change the model position to generate new Gcode file.

A2: The model file problem, if the model is still misplaced after re-slicing, it's the original file problem.

A3: The nozzle is forced to stop printing Path:
First, make sure you have not touched the nozzle when the printer is printing.
Second, if there is filament residue on the top layer, the residue area will become larger gradually, when it accumulates to a certain amount and become stiffer enough, the nozzle will be forced to move abnormally.

A4: Power supply is not stable.
Check if large power electrical equipment is working while the printer is printing, dislocation happens when some equipment turns off such as air conditioner, if so, you need to connect a voltage stabilizer to the printer power supply. Otherwise, observe if the nozzle is blocked at a certain position, if so, the power supply on X,Y,Z axles are not even, then need to adjust the X,Y, Z electric current on the main board.

A5: If the above solution can not solve the misplace problem, the dislocation mostly happen at the same height for various models, then need to change the mother board.

Q4: Why the printing accuracy is quite different from the real model?

A1: If there is a lot of filament piled up on the model surface.
A1.1: Nozzle temperature is too high, the filaments melt too fast and caused overflowing.
A1.2: If the filament flow is too large, there is filament flow setting in slice software , change the default value 100% to be 80%.
A1.3: Filament diameter setting problem, it's in slice software, the default settings

are different, there are both 1.75mm and 3mm filament on the market, for 1.75mm, the diameter should be 1.75, but for 3mm, the diameter should be 2.85 or 2.95.

A2: Rough surface after removing the support for FDM technology.

A2.1: The support density should be as low as possible, 10% is proper, it' s easy to remove.

A2.2: Trim the model with a grinding tool, rub gently with a towel and dip a little acetone, make sure to wear gloves before hand, and do not wipe too long to caused the appearance effected or dimension changed.

A3: The inappropriate distance between the platform and nozzle.

A3.1: The first layer is not formed, or the models are without edges or corners if distance is too large.

A3.2: The nozzle will scratch the platform and no filament come out of the nozzle if distance is too close, the proper distance is the thickness of an A4 paper.

A4: The inappropriate printing filament.

With the maturity of 3d printing, various of filaments are available on the market, but the compatibility for filament and printers are particularly important.