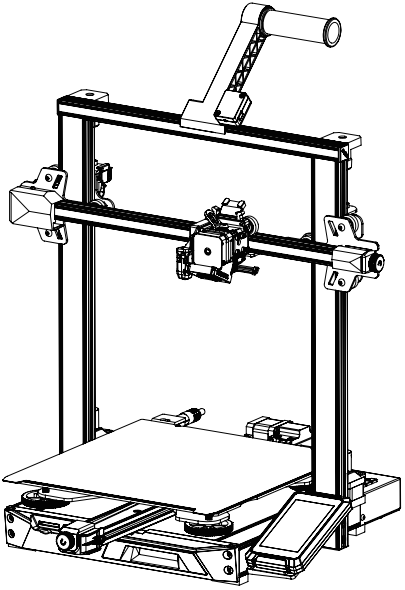
Ender

3D Printer User Manual

Ender-3 S1 Plus



For a better experience in using our product, you can also learn how to use the Printer in the following ways: View the accompanied instructions and videos in the Storage card.

V1.4

1 Notes

1. Do not use the printer any way other than described herein in order to avoid personal injury or property damage.
2. Do not place the printer near any heat source or flammable or explosive objects. We suggest placing it in a well-ventilated, low-dust environment.
3. Do not expose the printer to violent vibration or any unstable environment, as this may cause poor print quality.
4. Before using experimental or exotic filaments, we suggest using standard filaments such as ABS or PLA to calibrate and test the machine.
5. Do not touch the nozzle or printing surface during operation as they may be hot. Keep hands away from machine while in use to avoid burns or personal injury.
6. When cleaning debris from the printer hotend, always use the provided tools. Do not touch the nozzle directly when heated. This can cause personal injury.
7. 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 before every print for consistent results.
8. 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.
9. 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. Creality will not be responsible for any violators' legal liability under any circustance.

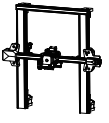
2 Parts List

1 Base Frame X1

2 Nozzle Kit X1

3 Wire clamp X1

4 Spool X1



5 Gantry Frame X1

6 Display X1

7 Screen bracket X1

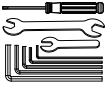
8 Material rack and filament sensor X1

3 Tool list

9 Spade X1

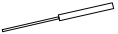
10 Diagonal Pliers X1

11 Filament X1



12 Wrench and screwdriver X1

13 Power Cord X1



14 Nozzle Cleaner X1

15 Storage Card & Card Reader X1

16 Nozzle X1

⑰ Hexagon socket head spring washer combination screw M5x45 X5

⑱ Hexagon socket flat round head screw M4x18 X4

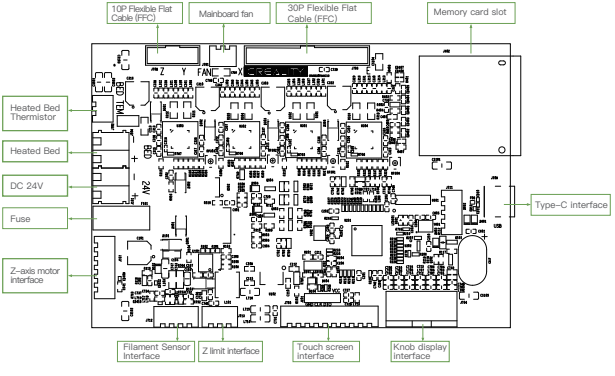
⑲ Hexagon socket head cap screw M3x6 X5

⑳ 8–10 open-end spanners ×1

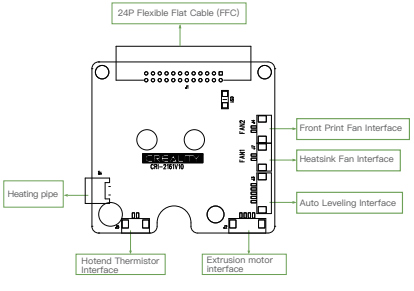
Tips: the above accessories are for reference only, in kind prevail!

4 Interface Descriptions

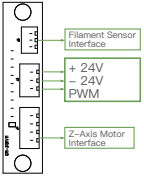
4.1 Description of Mainboard interfaces and Connections



4.2 Description of nozzle interfaces



4.3 Description of Z-axis Adapter

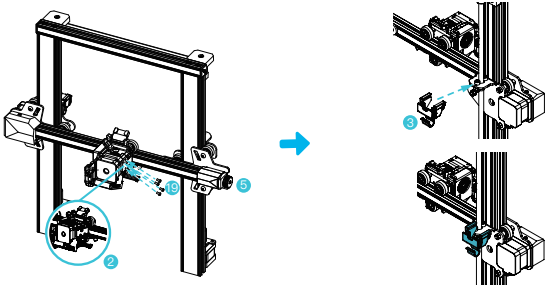


5 Product installation

5.1 Nozzle assembly and wire clamp installation

A. Place the nozzle assembly on the mounting back panel of the extruder, pre-lock with four M3x6 hexagon socket head cap screw, and then tighten to fix it.

B. Clip the wire clamp to the back panel of the X-axis motor.



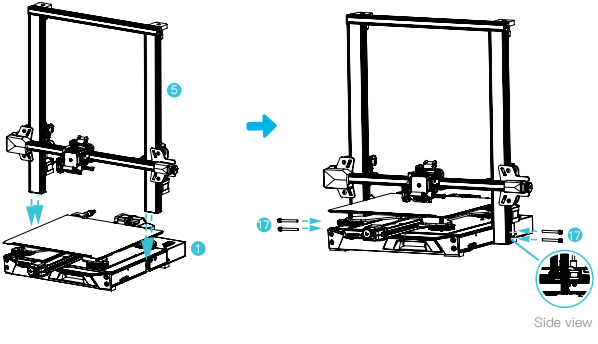
5.2 Gantry frame installation

A. Firstly, move X axis to the bottom, and then place the gantry in the base slot and pre-lock the mounting holes by 2 M5x45 hexagon socket head cap screws with spring washers from the side against the mounting holes.

B. Rotate the base assembly by 180° to ensure that both sides of the profile are flush at the top and bottom, and use two M5x45 hexagon socket head cap screws with spring washers on the other side to pre-lock the mounting holes before tightening up.

C. Rotate the base assembly by 180° and tighten the pre-locked screws in A to secure it.

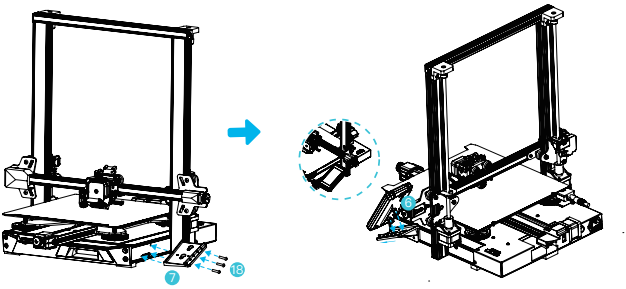
When tightening the screws, use the short side of the wrench.



5.3 Display installation

A. Place the display bracket on the side of the right profile, and tighten it with three M4X18 hexagon flat round head screws.

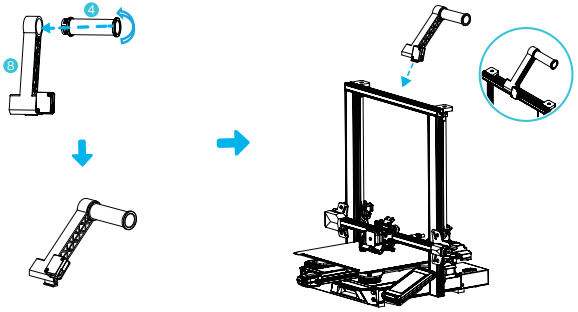
B. Align the pins on the back of the display with the large holes of the display bracket and insert them, and then slide down to tighten it.



5.4 Material rack installation

A. Find the material pipe accessories, and fix the threaded end on the right end of the material rack.

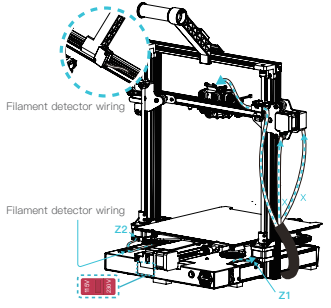
B. Fit the front slot of the installed material rack to the front slot of the profile, and then press down to clamp the bottom of the profile.



5.5 Equipment wiring

 X, Z axis motor interface	 X axis limit switch

1. Connect the nozzle to the 24pin port as shown in the figure. 2. Connect the X and Z axis stepper motors according to the yellow label on 6pin (4 wires) port. 3. Connect the X-axis limit switch as indicated by the yellow label on the 3pin (2 wires) port. 4. Connect 3pin (3 wires) 2.0 port to the keysets, and 3pin (3 wires) 2.54 port to the filament detector.



Caution

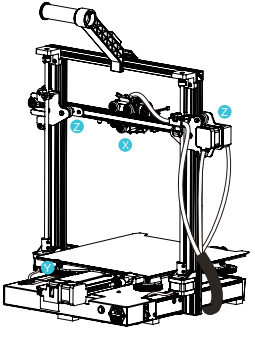
- Please ensure the correct position for the power supply switch and mains before supply connection, in order to avoid damage to the device.
- If the mains between 100V and 120V, please select the 115V for the power supply switch.
- If the mains between 200V and 240V, please select the 230V for the power supply switch (default is 230V).

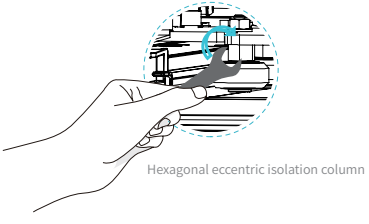
5.6 Pulley Tightness Adjustment

Before starting up, please check the tightness of the pulley.

X/Y/Z axis pulley adjustment:

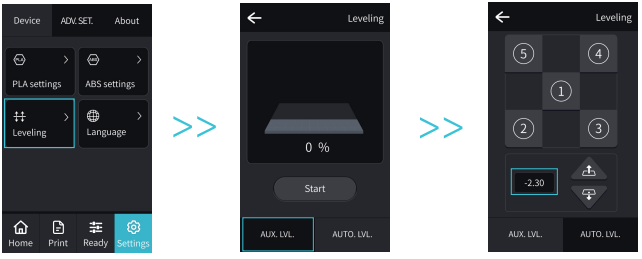
Gently dial the pulley to check whether it is idling or stuck. If this phenomenon occurs, use an open-end wrench to adjust the hexagonal eccentric isolation column to make it rotate smoothly.



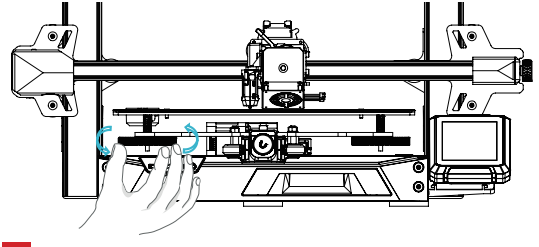


6 Assisted Leveling

1. Go to Settings → Leveling → Assisted Leveling. Tap numbers ①/②/③/④/⑤ respectively.



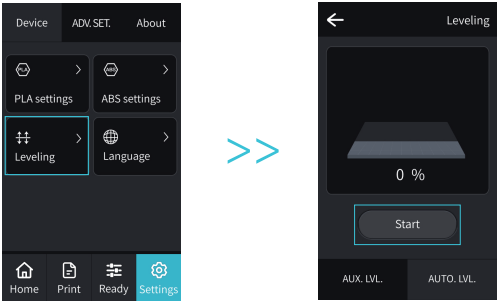
2. Turn the knob at the bottom of the hotbed and move the nozzle to the four corners of the printing platform so that the gap between the nozzle and the printing platform is almost the thickness of a piece of A4 paper (0.08 to 0.1 mm). Ensure that all the four corners are leveled.



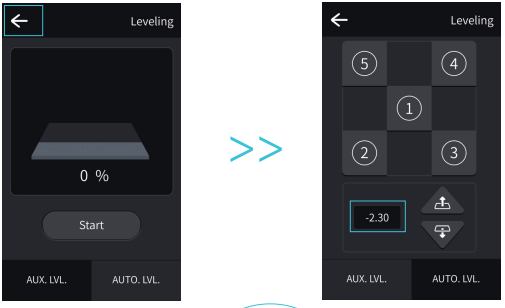
		⊗ The nozzle is too far away from the platform, and the filaments cannot stick to the platform.
		✓ The filament is evenly extruded and sticks to the platform just right.
		! The nozzle is too close to the platform, and the filament is not extruded enough, which may damage the platform.

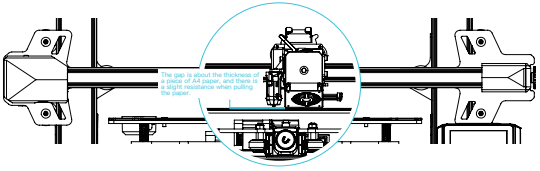
7 Auto Leveling

1. Go to "settings" and tap "leveling" to enter the CR Touch leveling interface.
   Tap "start" and wait for the automatic leveling to complete.



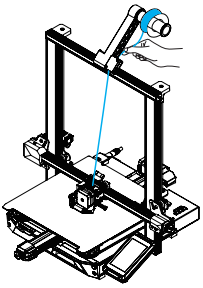
2.Return to the previous menu. Enter the assisted leveling interface. Adjust the Z-axis compensation value so that the height from the nozzle to the printing platform is about the thickness of a piece of A4 paper. Return to the previous menu, and the Z-axis compensation value will be configured.

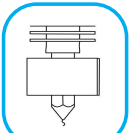




8 Loading the Filament

A. In order to successfully load the filament, please trim the end of the filament at an angle of 45 degrees.
B. Press the filament until it passes through the filament detection hole. Then press and hold the extruder handle to insert the filament into the extruder hole until it reaches the nozzle.
C. Warm up the nozzle. If the filament flows out of the nozzle when the temperature reaches the target value, the filament is properly loaded.





Replacing the filament:

1. When the printer is not printing:

A. Heat the nozzle to over 185℃, and wait until the filaments inside the nozzle are softened. Press the extrusion handle, push the filaments downwards to see if there is any filament coming out of nozzle, and then quickly pull out the filaments to prevent them from being stuck in the throat pipe.

B. Place the new filament onto the rack and repeat the steps in Section 8: Loading the Filament.

2. When the printer is printing:

A. Pause the printing. After the printer stops, press and hold the extrusion handle and quickly extract the filament to prevent it from clogging in the heat break.

B. Place the new filament onto the rack and press it through the filament detector. Press and hold the extrusion handle to insert the filament into the nozzle. Then push the filament to squeeze out the residual filament in the nozzle and clean up the nozzle before resuming printing.

9 First time Printing Instruction

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Creality Slicer

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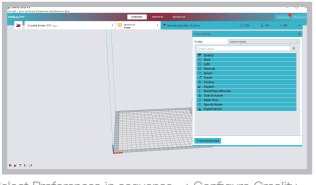
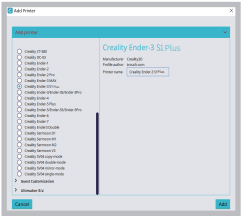
1. Log in to the official website to download (www.creality.com) or find the Creality software in the memory card and install it.



2. Select Preferences in sequence → Configure Creality → Next → Select corresponding language → Next → Finish to complete the setting.



3. Select Printer (Ender-3 S1 Plus)

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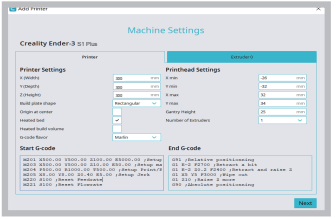

4. Enter the corresponding parameters → Close

Creality Slicer

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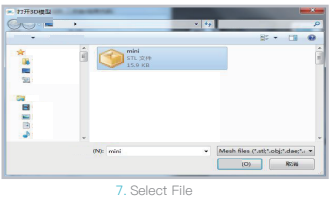
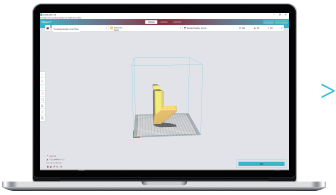
5. Open Creality Slicer

6. Load File



7. Select File



8. Generate G code → Save to memory card

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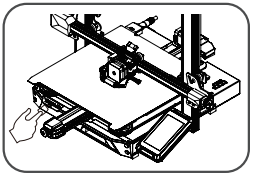
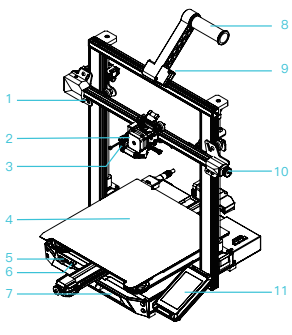


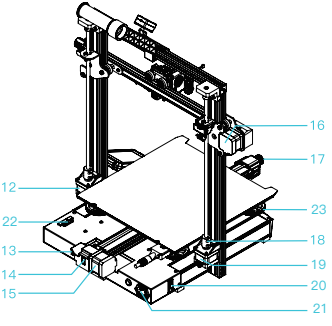
9. Insert the memory card → Select "Print" → Select the file to print→ Select "Start Printing"

It is important to note file name within the memory card must be in Latin letters or numbers. Chinese characters or any other special symbol cannot be displayed by the printer.

Reminder: Please refer to user manual within the provided memory card for software operation instructions.

10 Equipment Introduction





1 X-axis Limit Switch
2 Nozzle Assembly
3 Auto Leveling Assembly
4 Printing Platform
5 Memory Card Slot
6 Type-C Connection
7 Tool Box
8 Spool Holder
9 Filament Sensor
10 X-axis Belt Tension Adjustment Knob
11 Display
12 Z-axis Motor Z2
13 Y-Axis Limit Switch
14 Voltage Toggle Switch
15 Y-axis Motor
16 X-axis Motor
17 Y-axis Belt Tension Adjustment Knob
18 Coupler
19 Z-axis Motor Z1
20 Power Switch
21 Power Socket
22 Pinboard
23 Leveling nuts

The actual product may be different from the picture due to different models. Please refer to the actual product. Shenzhen Creality 3D Technology Co., Ltd. reserves the right of final interpretation.

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