



CREALITY

Create reality, achieve dreams

Ender-3 V3 SE

Ender-3 V3 SE

3D Printer User Manual

V1.1

To Our Dear Users

Thank you for choosing Creality. For your convenience, please read through this User Manual before you start and follow the instructions provided carefully.

Creality is always ready to provide you with high-quality services. If you encounter any issues or have any questions when using our products, please use the contact information at the end of this manual to contact us. To further improve your user experience, you can find more about our devices via the following methods:

User manual: You can find instructions and videos in the memory card provided with the printer.

You can also visit our official website (<https://www.creality.com>) to find information regarding software, hardware, contact information, device instructions, device warranty information, and more.

Firmware Upgrade

Please visit the official website <https://www.creality.com>, click on Service Center → Firmware/Software Download → Download the required firmware, install and use it.

Note: The manual interface is for reference only. As the functions are constantly upgraded, please refer to the latest firmware/software UI on the official website.

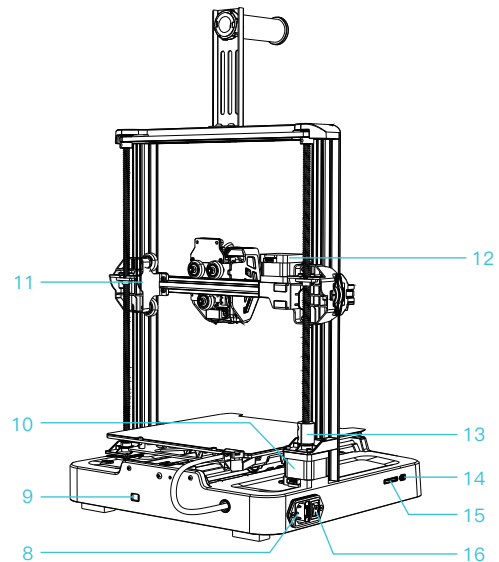
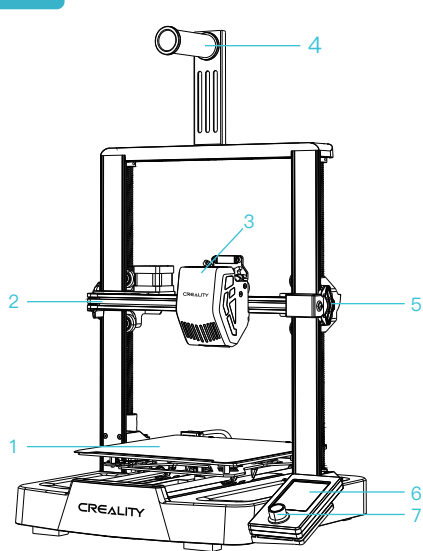
Videos showing the operation of the products and after-sales service

Videos showing the operation of the products and after-sales service For the product operation and after-sales service videos, you can visit <https://www.crealitycloud.com/product>, click on “Products” and select the right model, and then click on “Related” to view the tutorials on after-sales service.

1. Do not use this printer by methods or operations that are not described in this manual, otherwise it may result in accidental injury or property damage.
2. Do not place this printer near flammable materials, explosive materials or high heat sources. Please place this printer in a ventilated, cool and low-dust environment.
3. Do not place this printer in a vibrating or any other unstable environment, as the printing quality will be compromised when the printer shakes.
4. Please use the filament recommended by the manufacturer, otherwise the nozzle may be clogged or the printer may be damaged.
5. Please use the power cord provided with the printer and do not use the power cord of other products. The power plug must be plugged into a three-hole socket with a ground wire.
6. Do not touch the nozzle or hotbed while the printer is in operation, otherwise you may get burned.
7. Do not wear gloves or accessories while operating the printer, otherwise the moving parts may cause accidental injury including cuts and lacerations.
8. After the printing process is complete, please use tools to clean up the filament on the nozzle while the nozzle is still hot. Do not touch the nozzle with your hands when cleaning, otherwise your hands may get burned.
9. Please regularly clean the printer body with a dry cloth while the power is off, and wipe off dust, sticky printing materials, and foreign objects on the guide rails.
10. Children under the age of 10 must not use this printer without adult supervision in order to avoid accidental injury.
11. This printer has a safety protection mechanism. Please do not manually move the nozzle or printing platform quickly while the printer is on, otherwise the printer will automatically power off for protection.
12. Users should abide by the laws and regulations of the corresponding country and region where the equipment is located (place of use), abide by professional ethics, and pay attention to safety obligations. The use of our products or equipment for any illegal purpose is strictly prohibited. Our company is not responsible for the relevant legal responsibilities of any violators.

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1. About the Printer



1 Print platform

2 X-axis kit

3 Extruder kit

4 Material rack assembly

5 X-axis tensioner

6 Display screen

7 Rotary button

8 Power outlet

9 Voltage regulation gear

10 Z-axis motor

11 X-axis support

12 X-axis motor

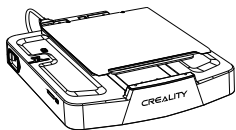
13 Coupler

14 Type-C port

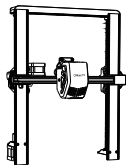
15 Storage card slot

16 Power switch

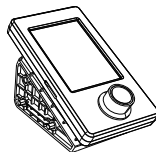
2. Parts List



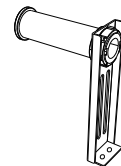
1 Base component



2 Gantry frame



3 Display screen component



4 Material rack assembly



Accessory kit



5 Hexagon Socket Head Cap Screw with Spring Washer M3*14 x6



6 Hexagon Socket Button Head Screw M4*10 x3



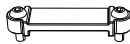
7 Hexagon Socket Button Head Screw M5*8 x2



8 Hexagon Socket Head Cap Screw M3*8 x2



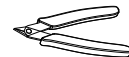
9 Toolkit



10 FFC Fixing Clip Assembly



11 Power cable



12 Cutting plier



13 Filament (20m)



14 Nozzle cleaner



15 Nozzle



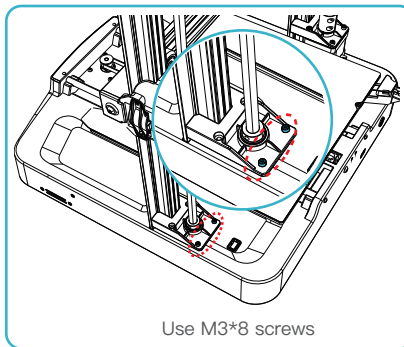
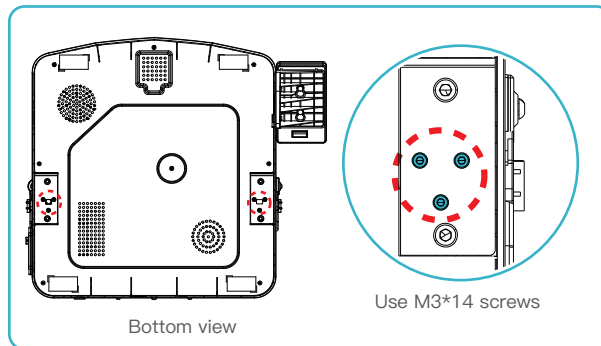
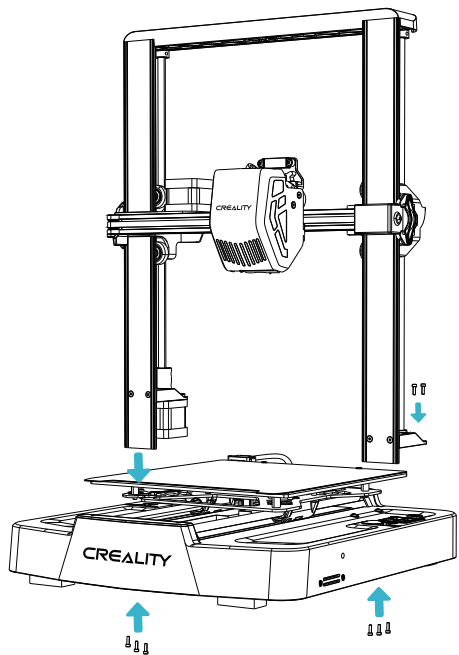
16 Storage card & card reader

Tips: the above accessories are for reference only. Please refer to the physical accessories.

3. Assembly Procedure

3.1 Gantry Frame

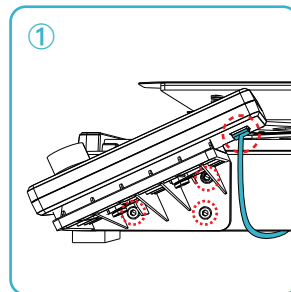
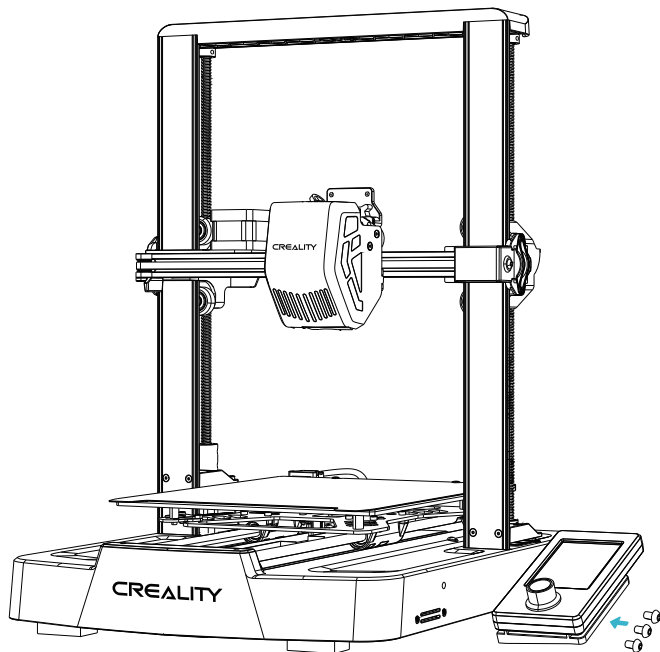
① Place the gantry frame in the slot of the base, tighten it first with M3*14 screws by aligning with the holes from the bottom, then use M3*8 screws to secure it in place from the rear end of the gantry frame in the same way.



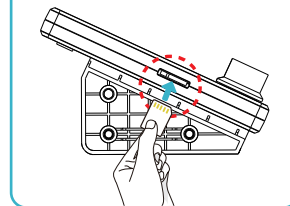
3. Assembly Procedure

3.2 Display Screen

- ① Put the display screen on the right side of the bottom assembly, align the screw holes and secure with M4*10 screws, then connect the display wiring;



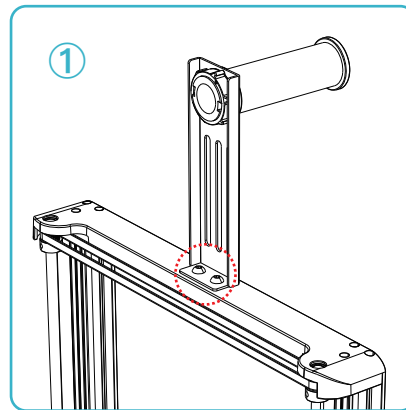
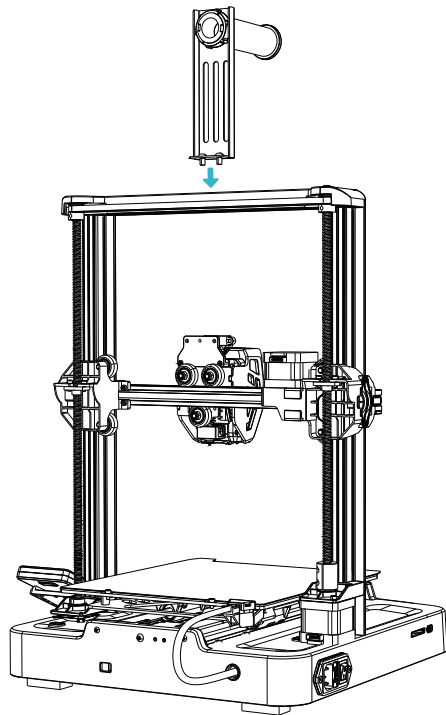
Tip: The card slot on the left side of the display screen is only used for inserting a card to upgrade the screen firmware.



3. Assembly Procedure

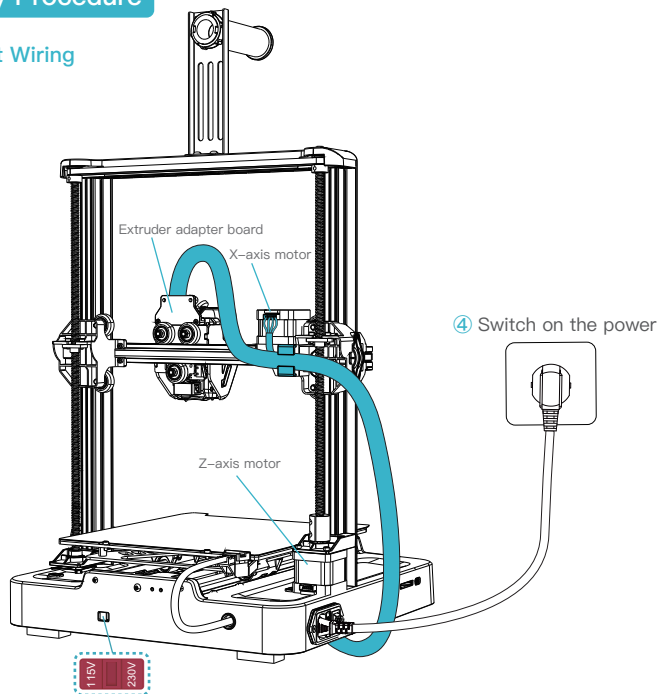
3.3 Material Rack

① Fix the material rack assembly to the gantry frame, align the screw holes and lock it with M5*8 screws;



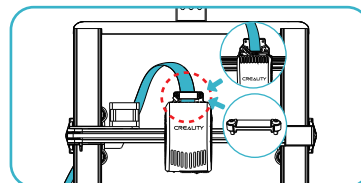
3. Assembly Procedure

3.4 Equipment Wiring

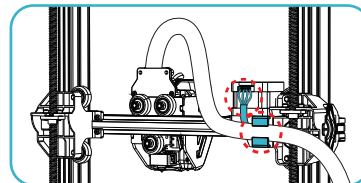


Caution

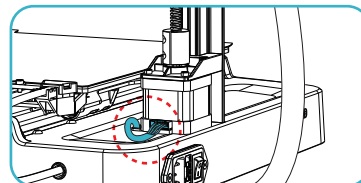
- Please ensure the correct position for the power supply switch and mains before supply connection, in order to avoid damage to the device.
- If the mains between 100V and 120V, please select the 115V for the power supply switch.
- If the mains between 200V and 240V, please select the 230V for the power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



① First, insert the extruder cable into the extruder adapter board, then secure it with the FFC fixing clip assembly;



② Follow the label instructions to secure the extruder cable into the cable fixing clip before connecting the X-axis motor;

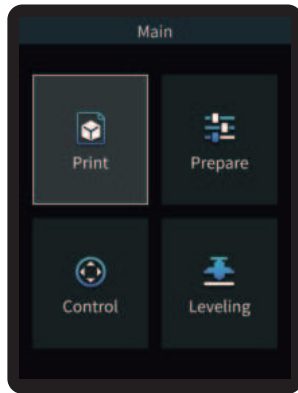
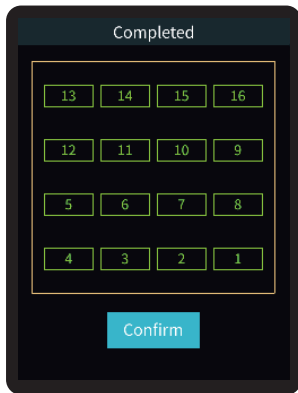
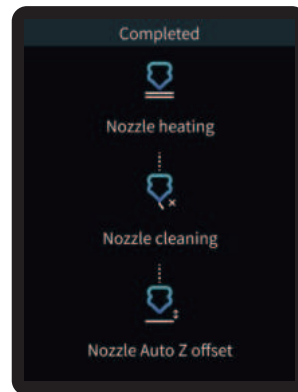
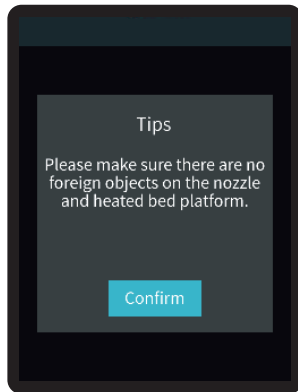
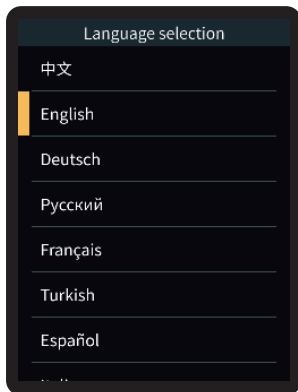


③ Connect the Z-axis motor



Tips:

Please ensure proper wiring according to the provided diagram and avoid overturning or folding the extruder cable, as it may cause printing abnormalities.

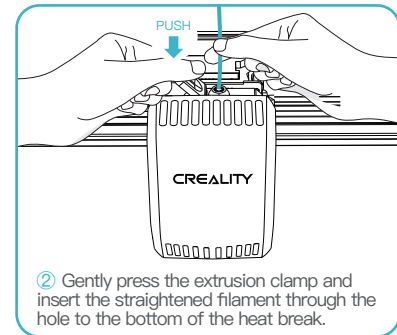
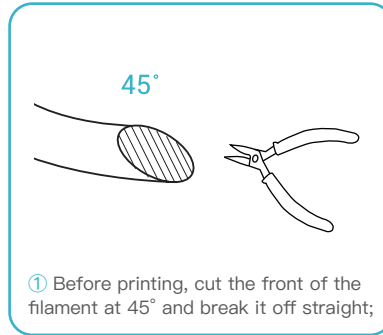
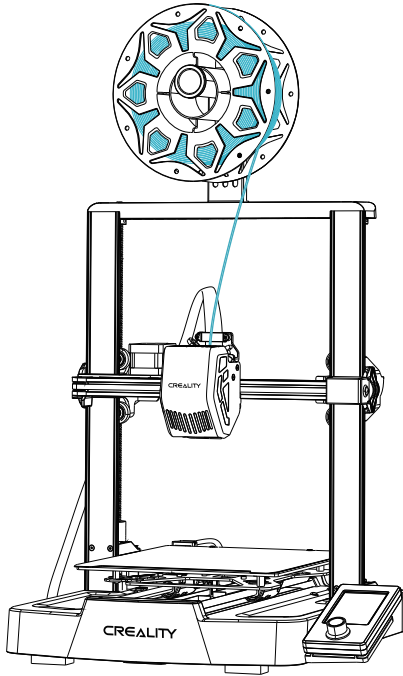


The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest software/firmware UI published on the official website.

5. Operation and Use

5.1 Filament Loading

1. Manual loading



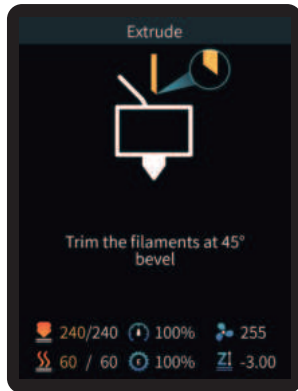
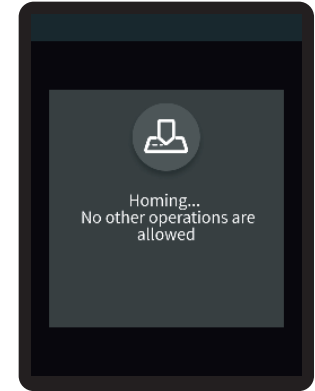
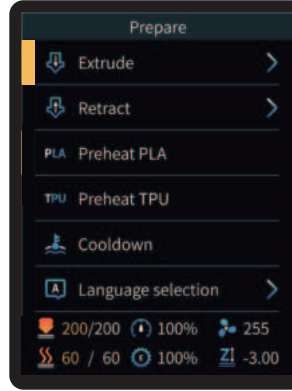
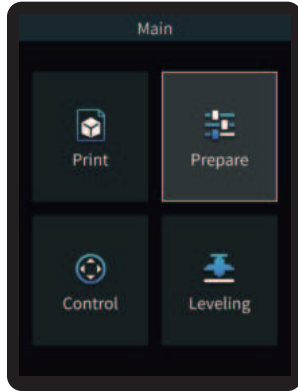
How to Replace the Filament?

Withdraw the filaments quickly and feed the new filaments after the nozzle is preheated and filaments are pushed a little forward.

5.Operation and Use

5.1 Filament Loading

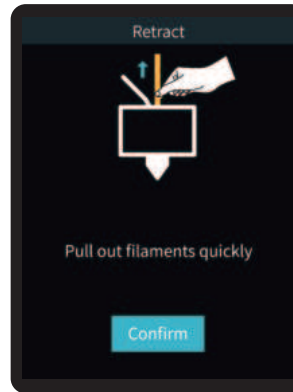
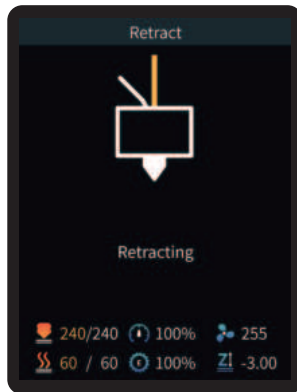
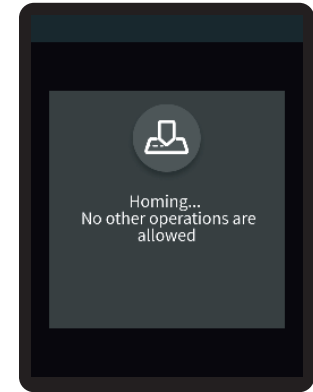
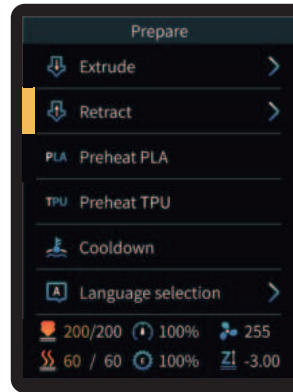
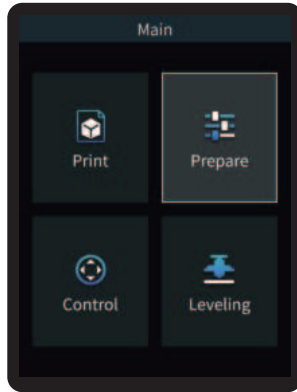
2. Auto feed



5.Operation and Use

5.1 Filament Loading

3. Auto retreat

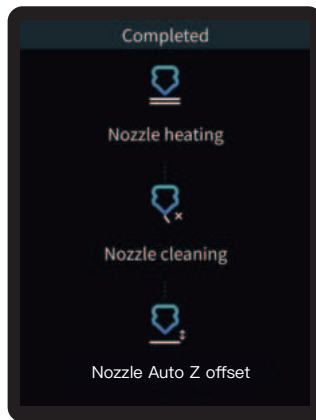
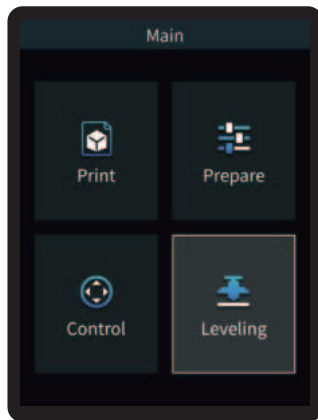


Tips:
During the retraction process, there may be some extrusion of filaments, which is a normal phenomenon.

5. Operation and Use

5.2 Leveling

Select “Leveling” with the knob and wait for the completion of the auto leveling operation;



The screenshot shows the leveling results screen with a grid of values. The values are displayed in different colors: green, blue, yellow, and red. Below the grid are 'Edit' and 'Confirm' buttons.

-0.08	-0.21	-0.19	-0.14
-0.09	-0.11	-0.05	0.02
0.01	0.01	0.08	0.21
0.25	0.24	0.32	0.45

Value displayed in green: indicating platform is level;
Value displayed in blue: indicating platform is relatively level;
Value displayed in yellow: indicating platform is slightly inclined;
Value displayed in red: indicating platform is significantly inclined.



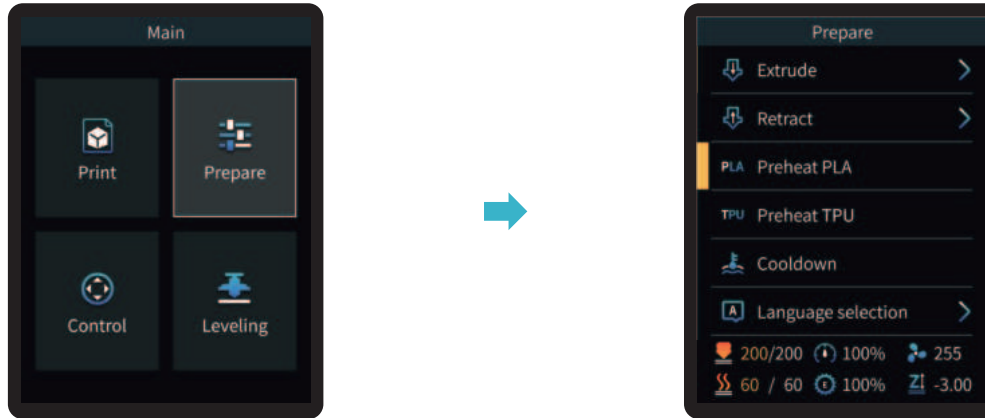
Tips:

Please clean the printing platform before leveling to ensure that there are no foreign objects or filaments left on the printing platform.

5. Operation and Use

5.3 Printer preheating

Carry out PLA/TPU preheating by selecting “Prepare” with the knob;



Official recommended print parameters for filament

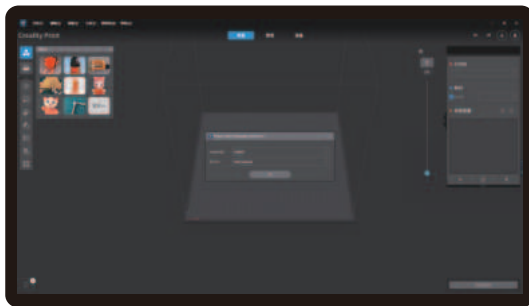
Filament	Adapted protective cover	Adapted dry box	Drawback distance	Drawback speed	Max. hotbed temperature	Nozzle temperature	Fan speed	Printing speed
CR-PLA	NO	NO	0.8mm	25mm/s	60°C	190°C	100%	180–250mm/s
HP-TPU	NO	NO	2.0mm	25mm/s	30°C	210°C	100%	50mm/s
CR-PETG	NO	YES	1.5mm	25mm/s	70°C	220°C	50%	120mm/s

5. Operation and Use

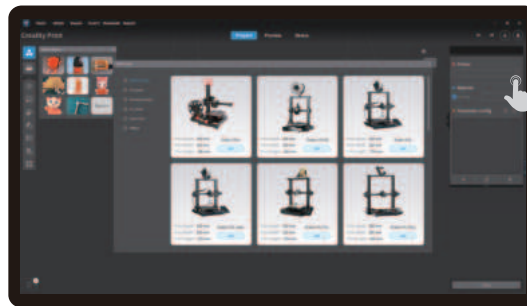


5.4 Software Installation and Slicing

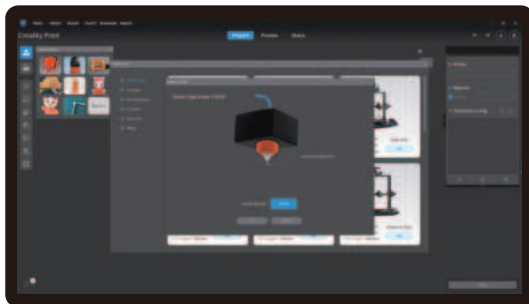
- ※ Install Creality Print slicing software by opening the random data on the storage card.
- ※ Login to the website to download and install: <https://www.crealitycloud.com/software-firmware/software?type=7>



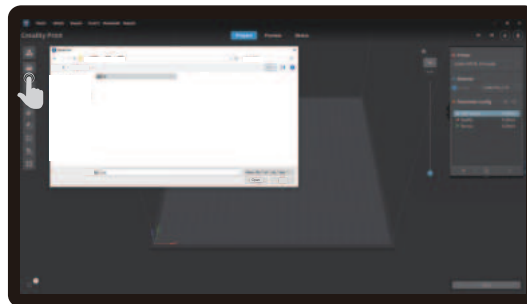
① Select "Language" and "Server"



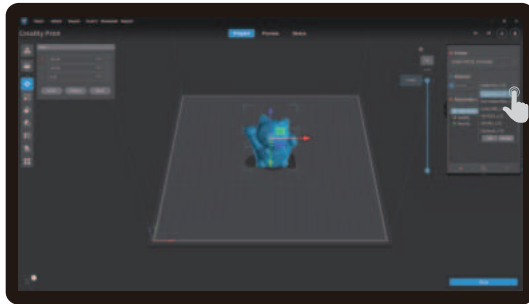
② Add the printer



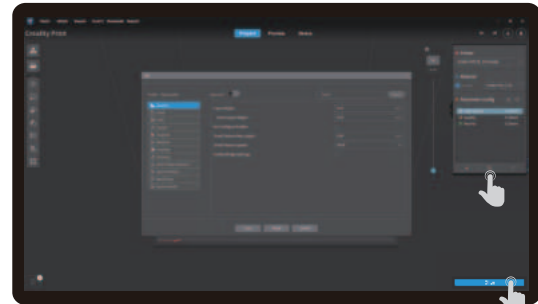
③ Confirm the nozzle diameter



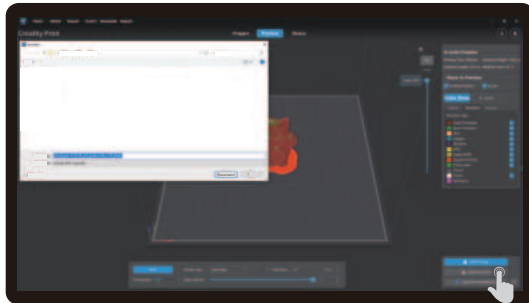
④ Import model files



⑤ Set filament type



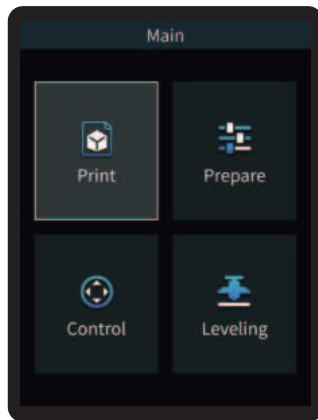
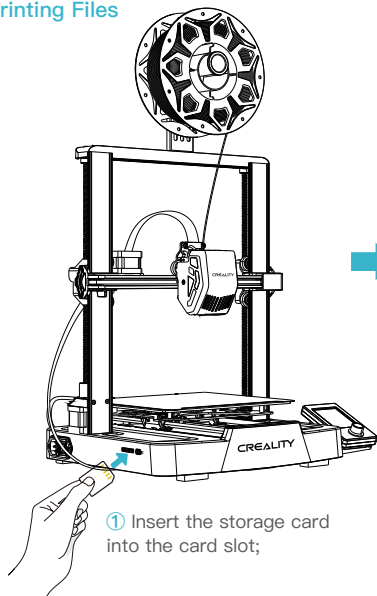
⑥ Adjust parameter configuration and click on "Slice"



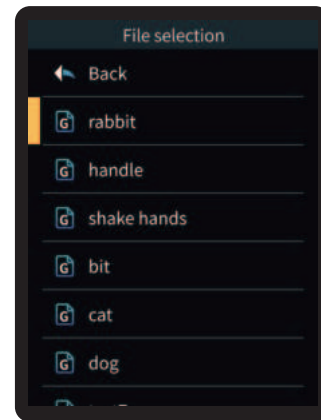
⑦ After the slicing is completed, gcode files are generated, then click "Export to Local" to save it to the storage card;

5. Operation and Use

5.5 Printing Files



② Select "Print";



③ Select the file to be printed;



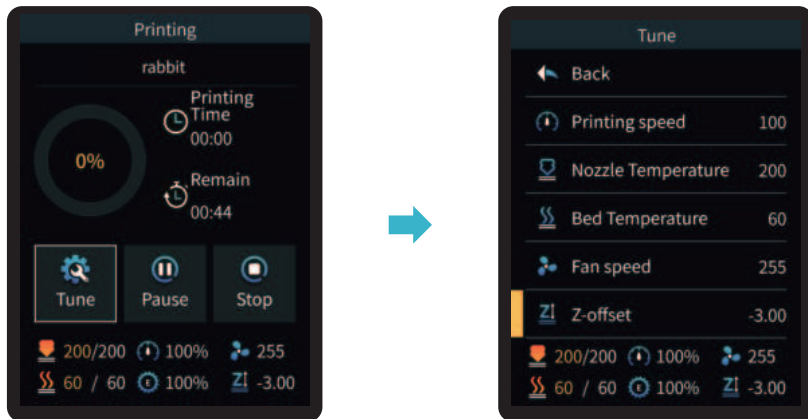
Note:

1. For details on using the software, please refer to the slicing software user manual on the memory card.
2. Saved files must be placed in the root directory (not a subdirectory) of the memory card.
3. The file name must be Latin letters or numbers, not Chinese characters or other special symbols, and no more than 20 characters.
4. Do not insert or remove the memory card during the printing process.

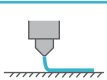


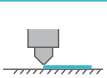


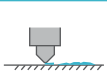


5. Operation and Use

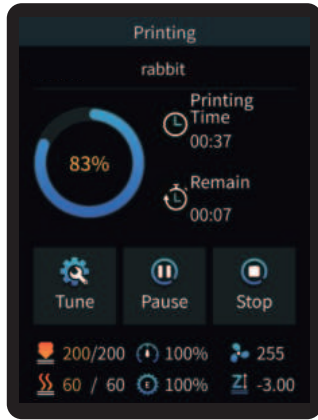


If the first layer of printing effect is overpressure or does not stick to the platform, you need to use the knob to select the setting, adjust the Z axis compensation, so that the printing platform and the nozzle fit as much as possible, and click OK to start printing.

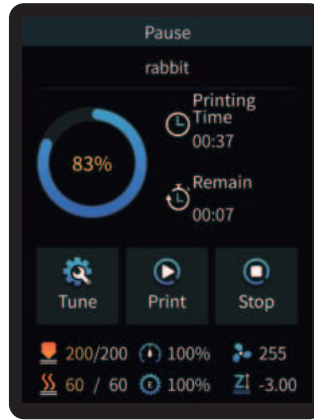


For levelling effect, please refer to the operation and try to maintain a distance of approximately 0.1 mm between the printing platform and the nozzle.

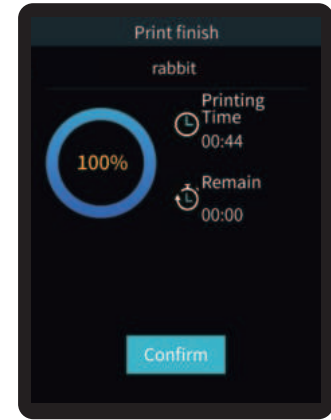
		 The nozzle is too far away from the platform, so the filaments can not adhere to the platform.
		 Filaments are extruded evenly, just sticking on the platform.
		 The nozzle is too close to the platform, leading to insufficient filament extrusion, even scraping the platform.



④ Printing...



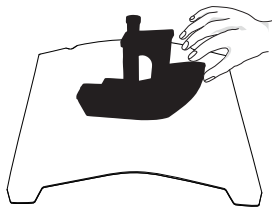
⑤ Printing can be paused in the event of an unexpected situation during printing;



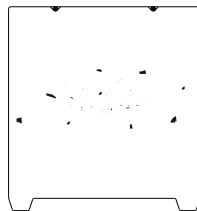
⑥ Click on "OK" when printing is done.

6. Equipment Maintenance

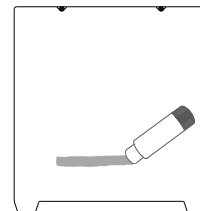
6.1 Platform plate removal and maintenance



- 1 a. When printing is finished, wait for the platform plate to cool before removing the printing platform with the model attached;
b. Slightly bend the platform with both hands to separate the model from the platform.



- 2 If there are residual filaments on the platform plate, scrape them off lightly with a blade and print again.



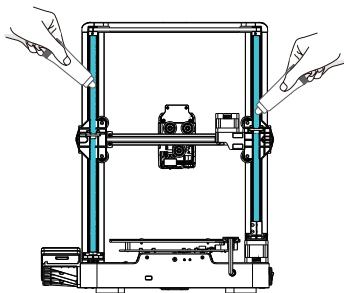
- 3 If the first layer of the model is not properly glued, it is recommended to apply solid adhesive evenly on the surface of the platform plate before preheating for printing.



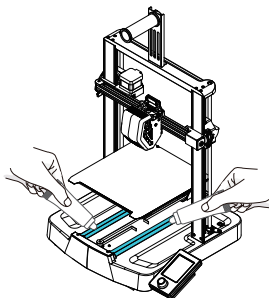
Tips: 1. The printing platform is not easy to bend too large in daily use, and it is impossible to prevent deformation from being unusable;
2. The printing platform is a perishable part, and it is recommended to replace it regularly to ensure that the first layer of the model sticks properly.

6.2 Screw and smooth shaft lubrication

It is recommended to purchase your own lubricant and regularly lubricate and maintain the screw and smooth shaft.

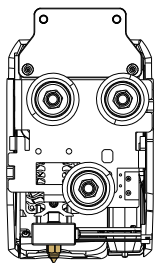


Lead screw lubrication

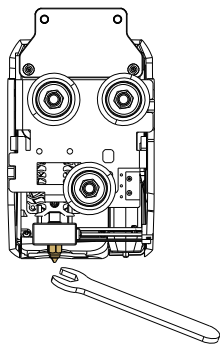


Smooth shaft lubrication

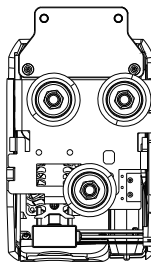
6.3 Nozzle Replacement



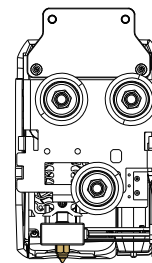
① Remove the silicone protective cover;



② Remove the old nozzle;



③ Mount a new nozzle;



④ Mount the silicone protective cover.



Warnings:

1. To replace the nozzle, you need to preheat the nozzle first;
2. Prevent scalding when replacing nozzles which are hot;
3. Use a tool to hold the heating block in place when removing the nozzle to avoid damage to the components.

6. Equipment Maintenance

6.4 Troubleshooting

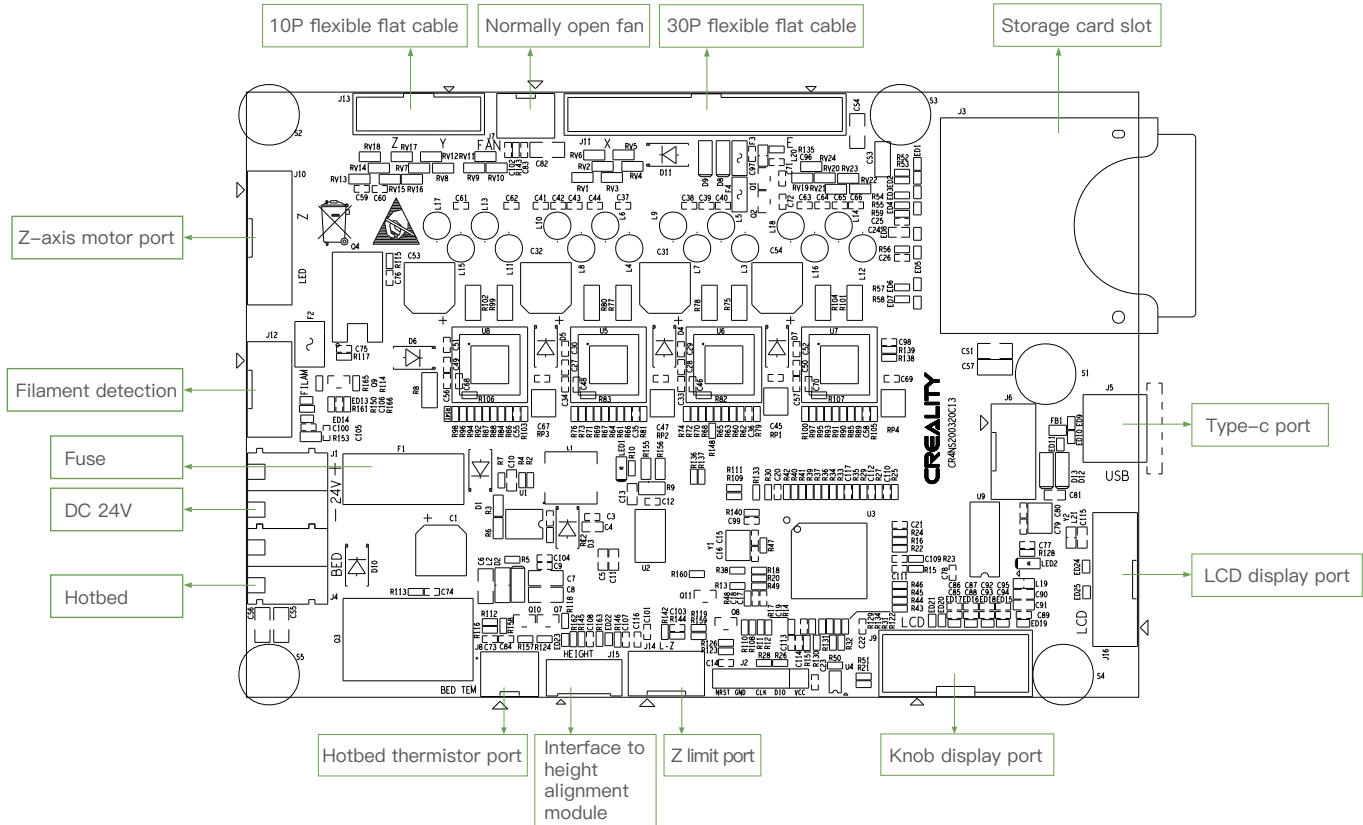
No.	Description of the problem	Possible causes
1	No extrusion of filaments as printing begins	<ol style="list-style-type: none"> 1) Filaments not loaded in place 2) Extruder planning 3) Filament jamming
2	Insufficient extrusion	<ol style="list-style-type: none"> 1) Incorrect diameter of filaments; 2) Flow rate is too low, please readjust slicing parameters.
3	Holes or gaps in the top	<ol style="list-style-type: none"> 1) Inadequate number of solid layers at the top; 2) Too low infill density; 3) Insufficient extrusion.
4	Wire drawing or draping	<ol style="list-style-type: none"> 1) Too little drawback distance; 2) Slow drawback speed; 3) Extruder temperature too high; 4) Too long idle running distance.
5	Why does warping occur?	<ol style="list-style-type: none"> 1) Hotbed temperature is too low; 2) Model cooling fan disabled, cooling fan needs to be restarted; 3) Base area of the model is too small, it is required to increase the edges and base.
6	Why does the hotbed not heat up?	<ol style="list-style-type: none"> 1) Check the hotbed heating cable for broken or loose connections and re-enforce or replace with new wiring; 2) Contact after-sales staff to resolve.
7	What can I do if there is no response when the memory card is inserted into the machine?	<ol style="list-style-type: none"> 1) Corrupt print file, re-slice it; 2) The print file is too long, it is better to keep it to 8 letters or less; 3) If the file name is not English/numeric, insert the card into the machine and restart it; 4) Format the storage card; 5) TF card / mainboard card slot is damaged, contact after-sales service to assist in testing.
8	What can I do about loose X-axis and Y-axis belts?	Tighten the X-axis and Y-axis adjustment screws with a tool and keep the belt with a certain amount of spring back and then start printing again.
9	How to deal with abnormal nozzle temperatures (too low/too high)?	<ol style="list-style-type: none"> 1) Check nozzle NTC wire for open circuit (too low temperature) / short circuit (too high temperature). 2) Check the nozzle heating block for abnormalities. 3) Replace the nozzle thermistor.
10	How to deal with abnormal hotbed temperatures (too low/too high)?	<ol style="list-style-type: none"> 1) Check hotbed NTC wire for open circuit (too low temperature) / short circuit (too high temperature). 2) Check the hotbed heating system for abnormalities. 3) Replace the hotbed thermistor.

7. Equipment Parameters



Equipment Parameters	
Model	Ender-3 V3 SE
Modeling Technolog	FDM
Modeling Dimensions	220*220*250mm
Leveling Method	Auto-leveling with CR-Touch
Number of Nozzles	1pcs
Extruder Diameter	0.4 mm (standard)
Slice Thickness	0.1-0.35mm
Precision	±0.1mm
typical printing speed	180mm/s
Maximum printing speed	250mm/s
Acceleration	2500mm/s ²
Nozzle Temperature	≤ 260°C
Hotbed Temperature	≤ 100°C
Ambient Temperature	5°C~35°C
Filaments	PLA/TPU(95A)/PETG
Rated Power	350W
Input voltage	100-120V~, 200-240V~, 50/60Hz
Power Loss Recovery	Yes
Printing Method	Storage card printing
File Format	STL/OBJ/3MF/AMF
Slicing Software	Creality print/Cura 5 and later/Simplify3D
Operating Systems	Windows/Mac OS/Linux
Language	中文/ English/ Español/ Deutsche/ Français/ Русский/ Português/ Italiano/ Türk/ 日本語

8. Circuit Wiring



Due to the differences between different machine models, the actual objects and the images can differ. Please refer to the actual machine. The final explanation rights shall be reserved by Shenzhen Creality 3D Technology Co., Ltd.

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