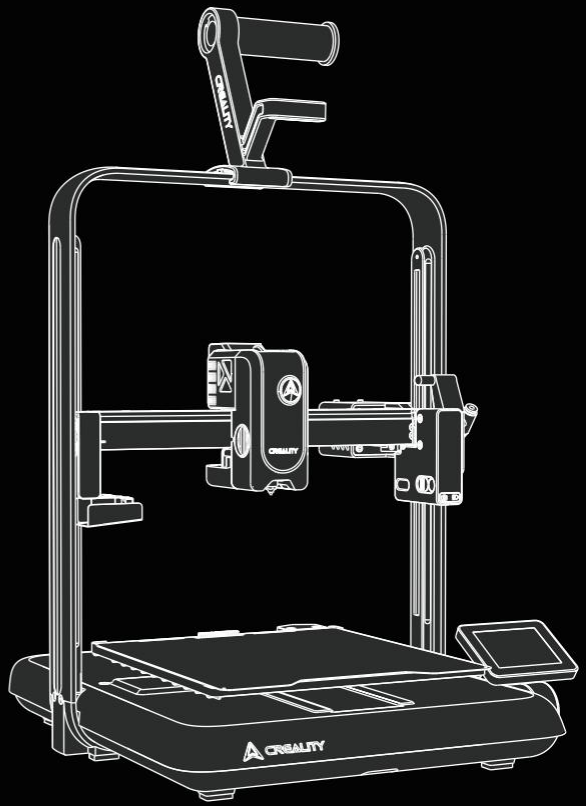
CREALITY



Ender V4

USER MANUAL

Ender V4 3D Printer

V 1.0_EN

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:
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

1. You can upgrade the firmware directly through the device screen;
2. You can upgrade the firmware via the Creality Cloud OTA;
3. Please visit the official website https://www.creality.com, click on “Support → Download Center ” , select the corresponding model to download the required firmware, (Or click on“Creality Cloud → Downloads → Firmware”) , after installation is complete, you can use it.

Product Operation and After-Sales Service Information

1. You can log in to the Creality Official Wiki (https://wiki.creality.com) to explore more detailed after-sales service tutorials.
2. Or contact our after-sales service center at +86 755 3396 5666, or send e-mail to cs@creality.com.

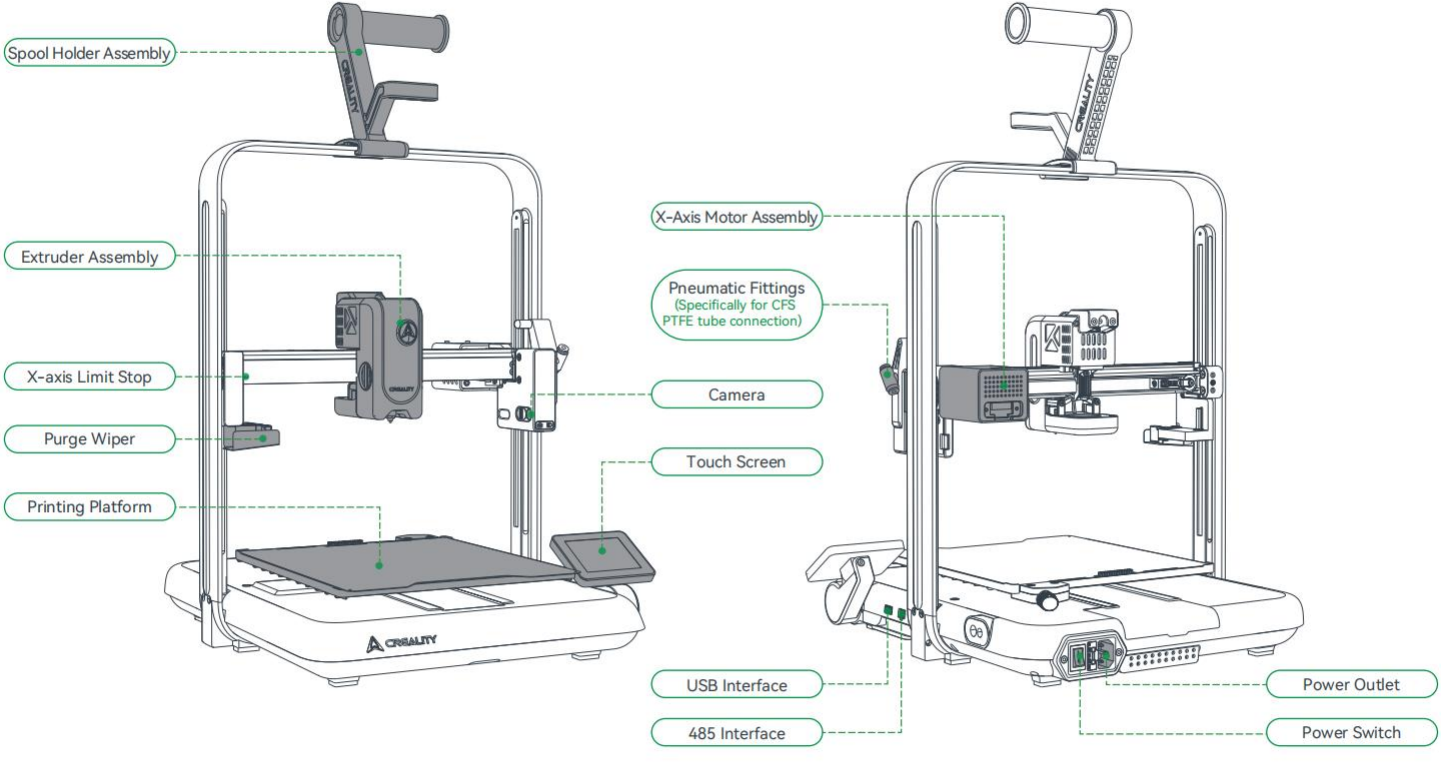
Creality Wiki

NOTES

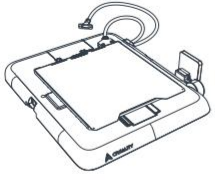
1. Do not use the printer in any way other than described herein in order to avoid personal injury or property damage;
2. Do not place the printer near any heat source or flammable or explosive objects. We suggest placing it in a well-ventilated, cool and dustless environment;
3. Do not expose the printer to a violent vibration or any other unstable environment, as this may cause poor print quality;
4. Please use recommended filaments to avoid clogging of the extrusion head and causing damage to the machine;
5. Do not use the power cable of other products during installation. Always use a grounded three-prong power outlet, which accompanies the printer;
6. Do not touch the nozzle and the heated bed during operation to avoid burns or personal injury;
7. Do not wear gloves or wraps while operating the machine to prevent entrapment of movable parts that could cause crushing and cutting injuries to bodily parts;
8. Use the provided tools to clean the filament from the extruder in time taking advantage of the residual temperature after printing. Do not touch the extruder directly when cleaning, otherwise it may cause burns;
9. Clean the printer frequently. Clean the printer body with a dry cloth regularly after powering off the printer, wipe away dust, bonded print filament and foreign objects on the guide rails;
10. Children under 10 years old should not use the printer without supervision, otherwise it may cause personal injury;
11. 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 circumstance;
12. Tip: Do not plug in or unplug wires on a charged basis.

Contents

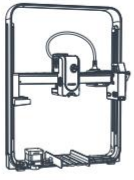
1. Printer Information



2. Parts List



1 Base Component



2 Gantry Frame

3 Spool Holder

4 Spool Barrel

5 Power Cable

Accessory Kit

1 M3*20 Hex Socket Cap Head Screws ×2

2 M3*8 Hex Socket Flat Head Self-tapping Screws ×2

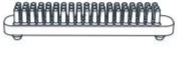
3 M4*10 Hex Socket Flat Head Screws ×6

4 Hexagonal Wrench

5 Filament

6 Nozzle Cleaner

7 Plastic Plugs ×2



8 Nozzle wiping strip

9 Cutting plier

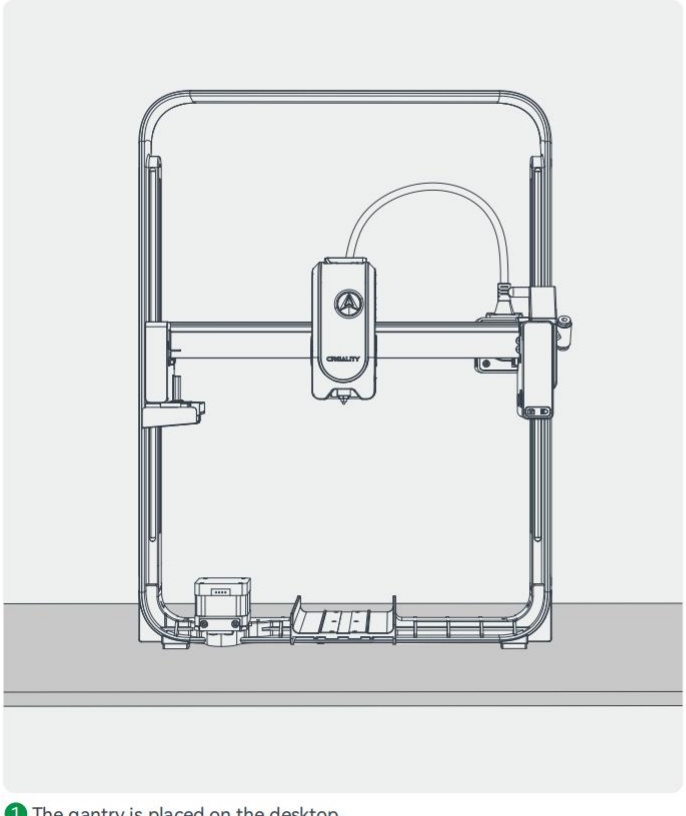
10 Quick Installation Guide

11 After-Sales Services Card

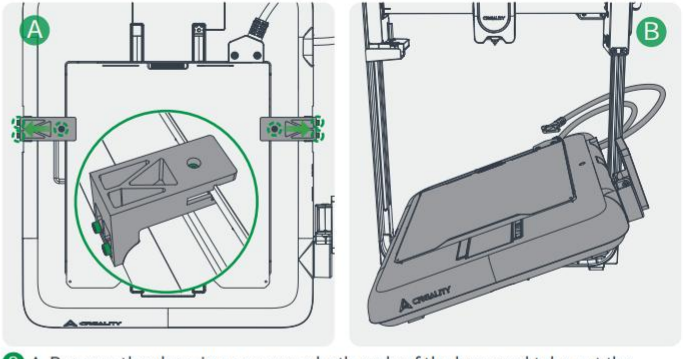
Tips: the above accessories are for reference only. Please refer to the physical accessories.

3. Assembly Procedure

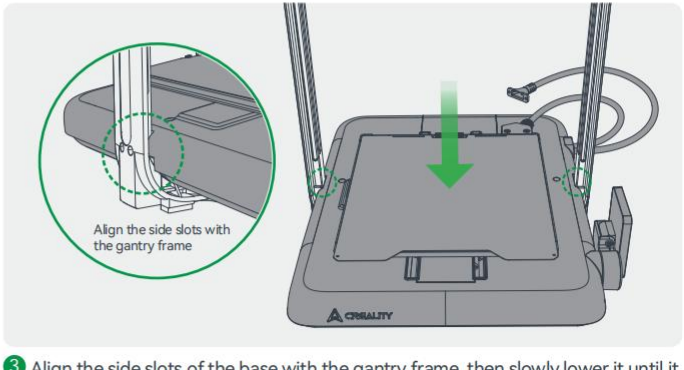
3.1 Gantry Frame Installation



1 The gantry is placed on the desktop.

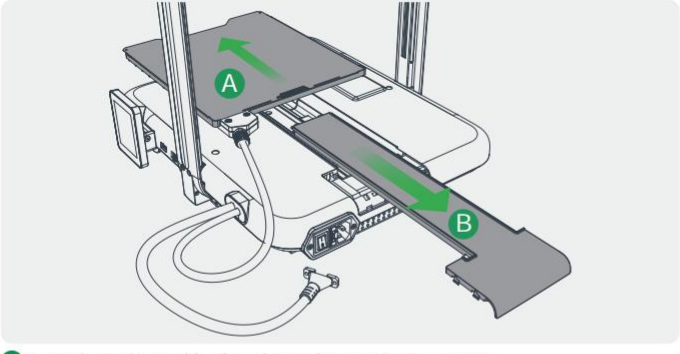


2 A. Remove the clamping screws on both ends of the base and take out the clamps. (Note: Keep the M3*20 screws on the sides after removal, they will be used in step ⑦)
B. Tilt the base approximately 45 degrees to pass through the gantry.

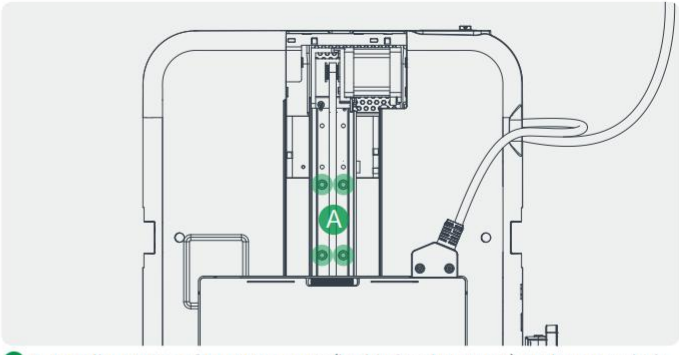


3 Align the side slots of the base with the gantry frame, then slowly lower it until it is flush with the gantry frame.

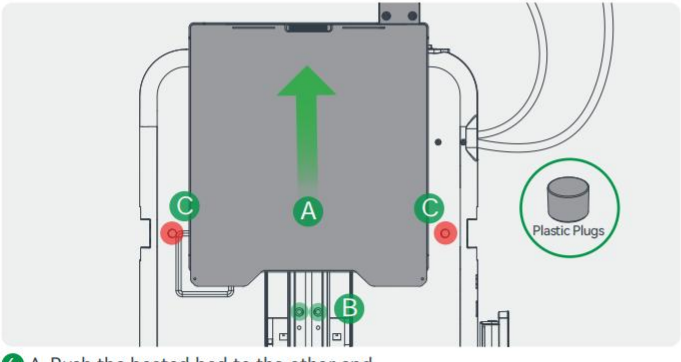
3. Assembly Procedure



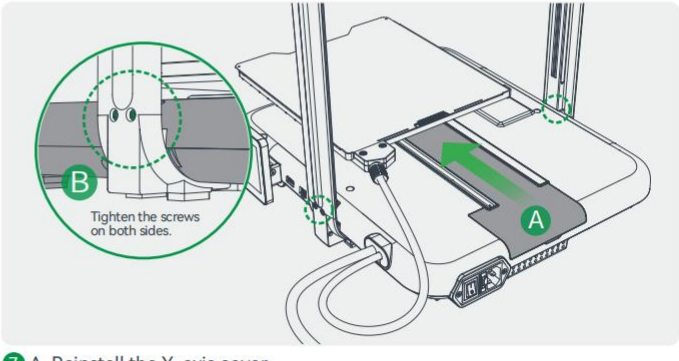
4 A. Push the heated bed to the end towards the screen.
B. Remove the Y-axis cover.



5 A. Install 4 pieces of **M4*10** screws (highlighted in green) at the screw hole positions on the Y-axis rail of the base.



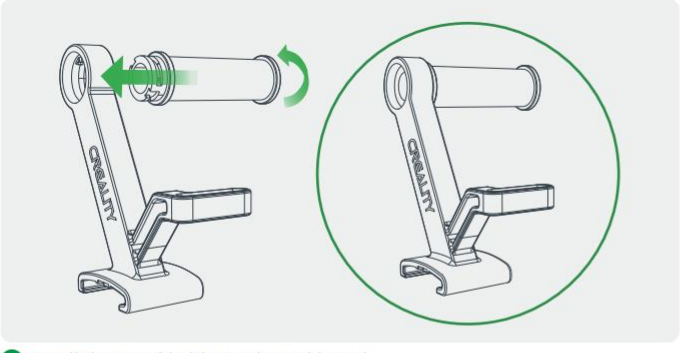
6 A. Push the heated bed to the other end.
B. Install 2 pieces of **M4*10** screws (highlighted in green) at the screw hole positions on the Y-axis rail of the base.
C. Install 2 pieces of **M3*20** screws (highlighted in red) at the screw hole positions on both left and right ends of the base and install the rubber plugs.



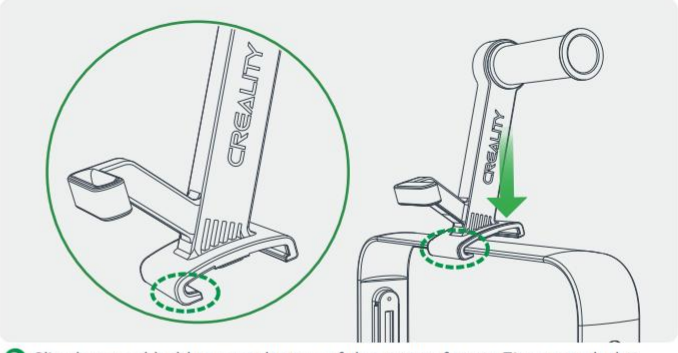
7 A. Reinstall the Y-axis cover.
B. Use the four **M3*20** screws removed in step ② to align and tighten the screw holes on the left and right sides of the gantry.

3. Assembly Procedure

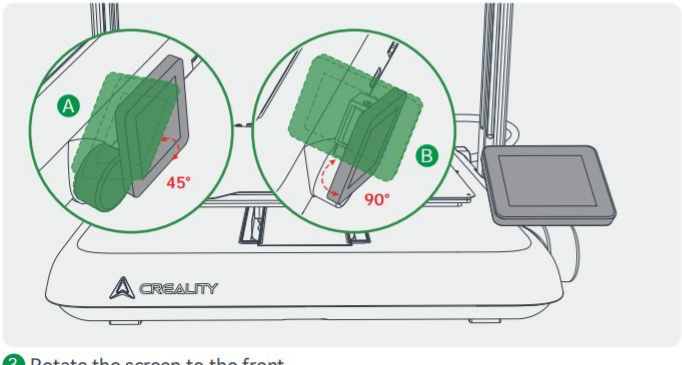
3.2 Install Spool Holder Assembly and Rotate Screen



1 Install the spool holder and spool barrel.



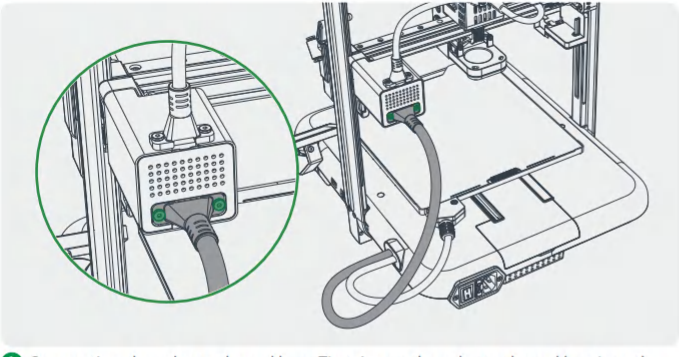
2 Clip the spool holder onto the top of the gantry frame: First, attach the longer side of the spool holder's base to the gantry frame, then press down to secure the other side (note the direction of the spool holder).



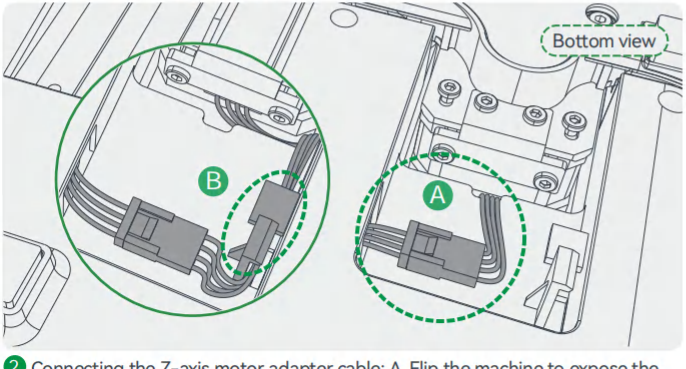
3 Rotate the screen to the front.

3. Assembly Procedure

3.3 Equipment Wiring

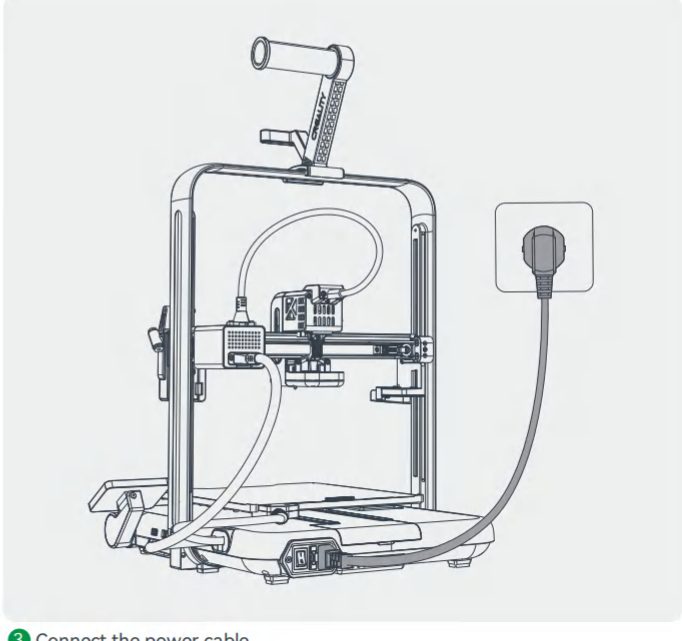


1 Connecting the adapter board bus: First, insert the adapter board bus into the corresponding slot (a click sound indicates it is securely connected), then use 2 M3*8 screws to tighten it (highlighted in green).



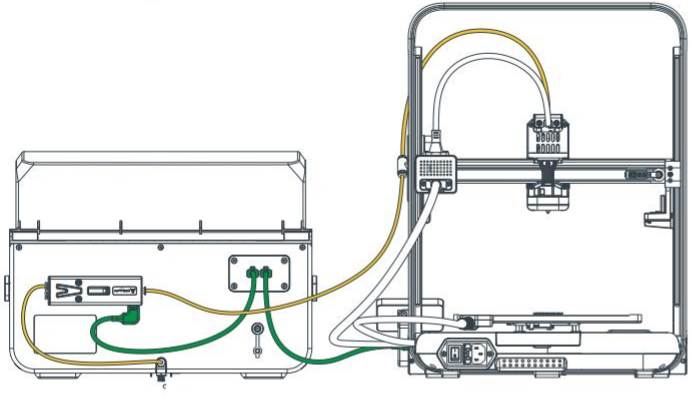
2 Connecting the Z-axis motor adapter cable: A. Flip the machine to expose the bottom, then connect the Z-axis adapter cable; B. As shown in the illustration, place the connected Z-axis motor adapter cable into the cable clip for fixing.

Please ensure the breakout board bus and heated bed cables are organized and not tangled or crossed.



3 Connect the power cable.

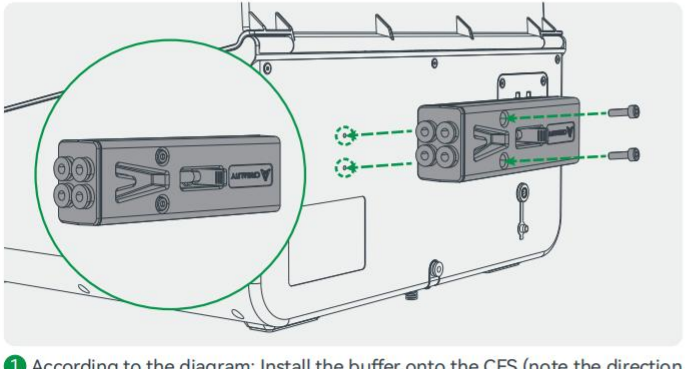
3.4 Connecting CFS



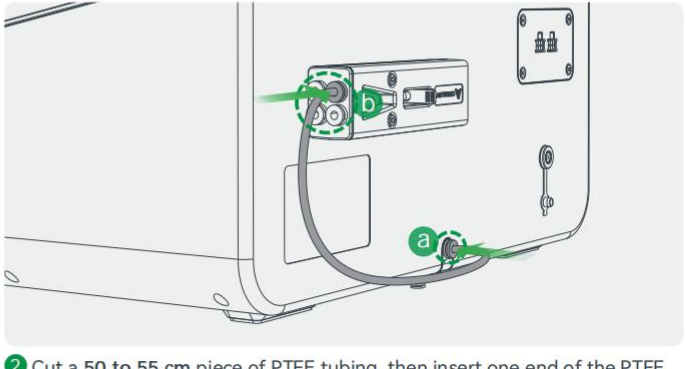
- Green is the 485 cable
- Yellow is the PTFE tube

Users who have not purchased CFS can skip this step.

(1) The following dimension for cutting the Teflon tube is calculated as the optimal size based on the required minimum distance of 15-20cm between the CFS and the 3D printer, and is provided for reference only;
(2) If the ends of the cut Teflon tube become deformed, they need to be manually restored to a round shape; otherwise, it can easily cause jamming.

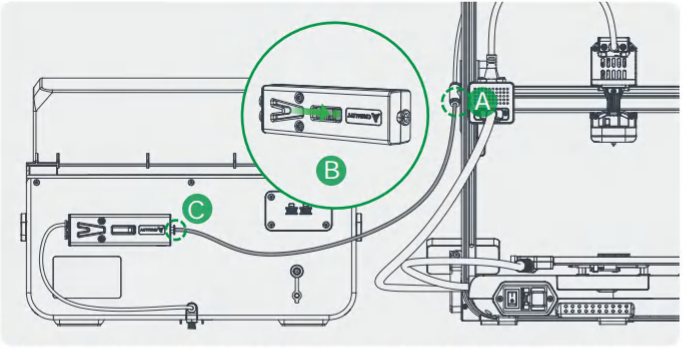


1 According to the diagram: Install the buffer onto the CFS (note the direction of the buffer) and secure it with screws.

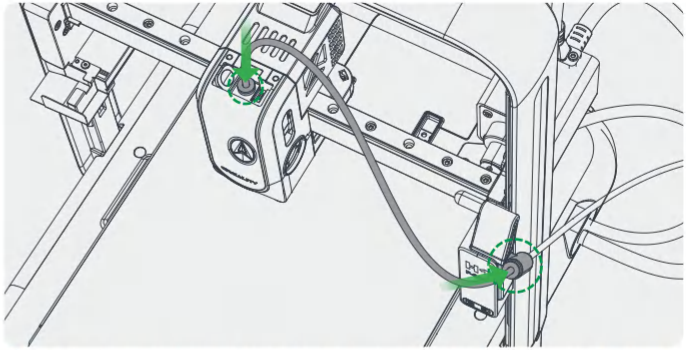


2 Cut a **50 to 55 cm** piece of PTFE tubing, then insert one end of the PTFE tubing into the CFS material outlet (position a); insert the other end into the buffer (position b, any one of the four holes will do).

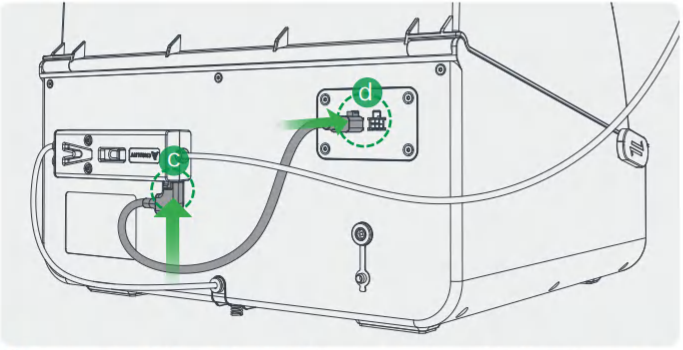
3. Assembly Procedure



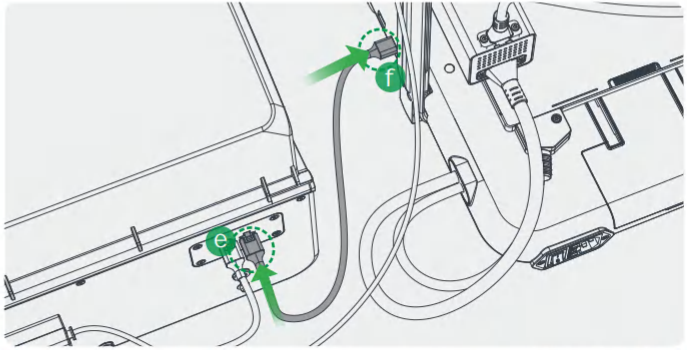
3 First, cut a PTFE tube to a length of **50-55cm**, and then follow steps A, B, and C to connect the buffer to the pneumatic connectors at the bottom of the printer.



4 Cut a **50~55cm** PTFE tube and connect it between the pneumatic fitting and the nozzle, as shown in the diagram.

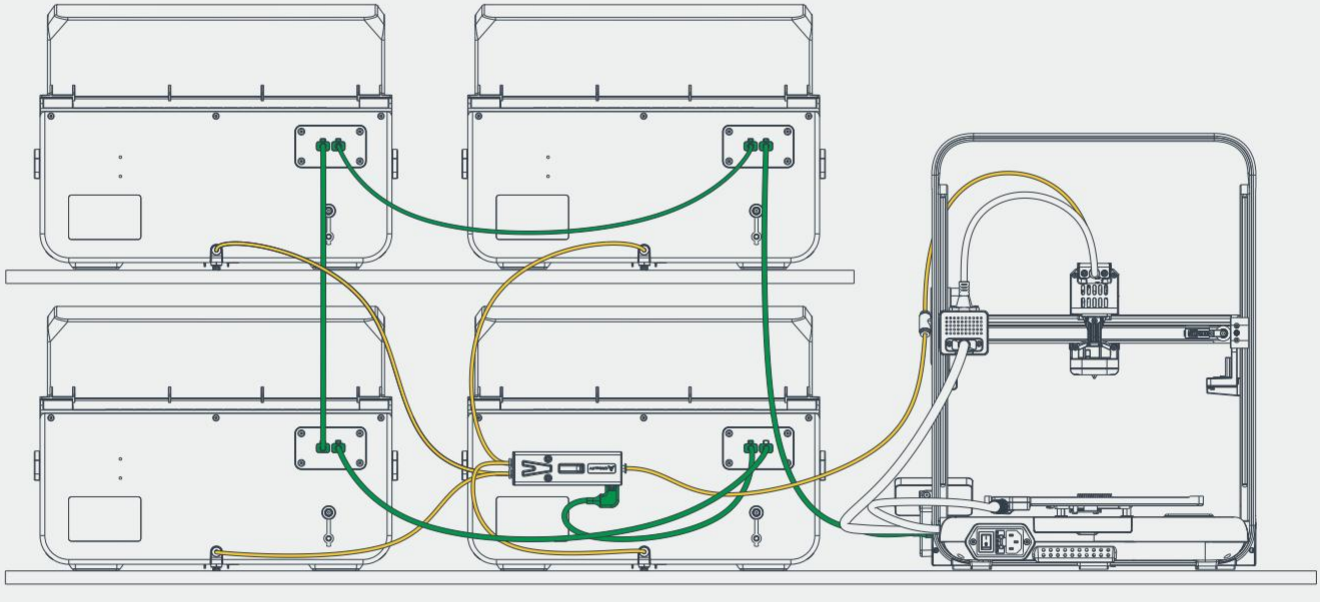


5 Connect the CFS to the buffer 485 communication cable: Note, insert the elbow into buffer position c, and the straight connector into CFS position d (any one of the two 485 sockets on CFS 6 can be used).



6 Connect the CFS to the 3D printer 485 communication cable: Both ends of this cable are 6-pin straight connectors, no distinction of front and back, insert one end into the CFS socket at position e, and the other end into the printer socket at position f.

3.4 Connecting Multiple CFSs

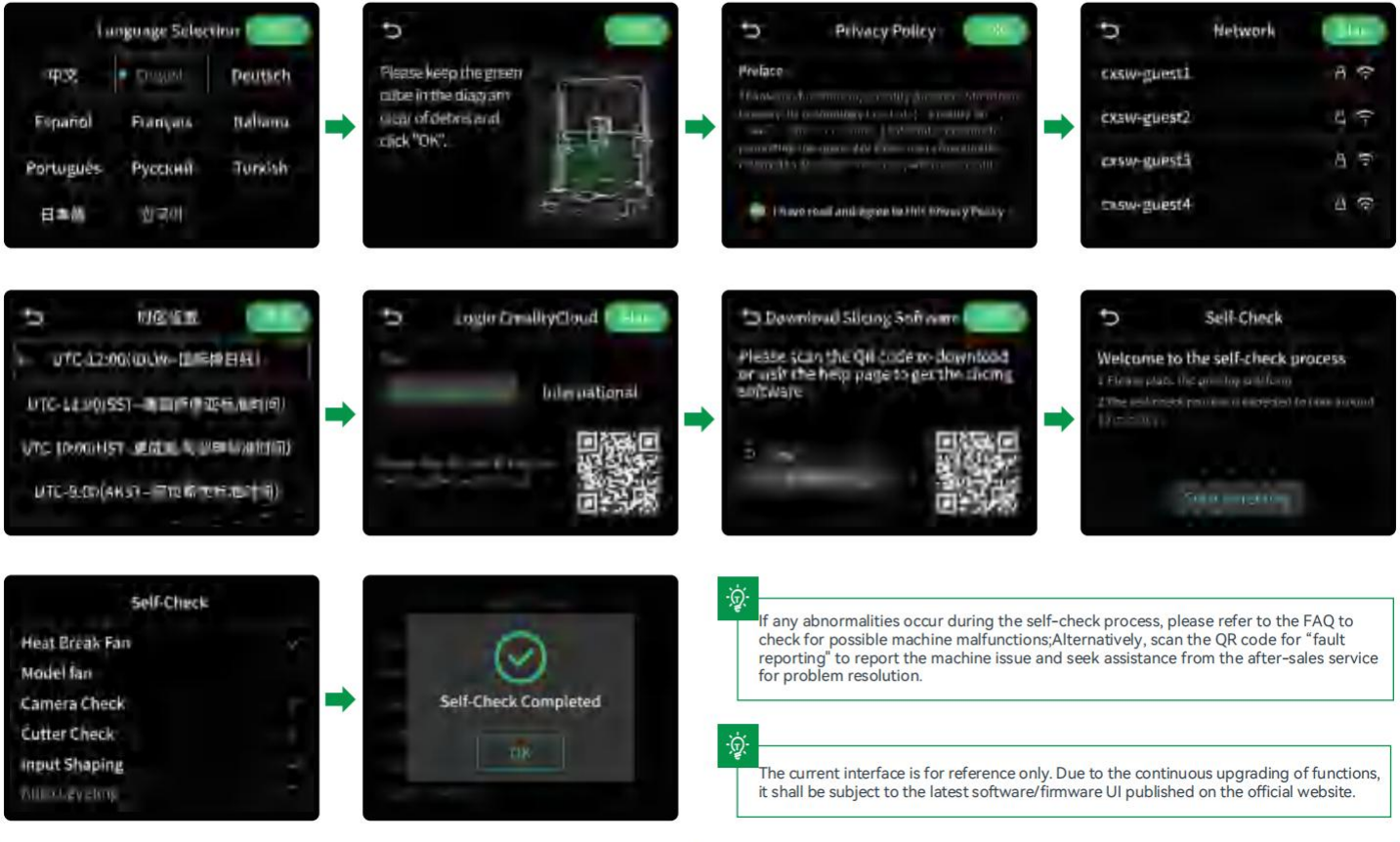


Users who have not purchased CFS can skip this step.

- Green is the 485 cable
- Yellow is the PTFE tube

4. About the Power-on Guide and User Interface

4.1 Power-on Guide

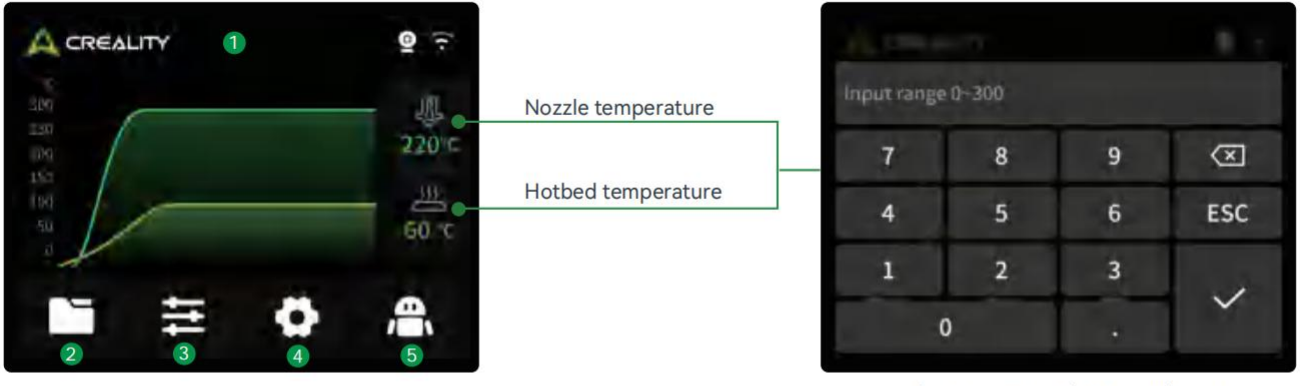


If any abnormalities occur during the self-check process, please refer to the FAQ to check for possible machine malfunctions;Alternatively, scan the QR code for "fault reporting" to report the machine issue and seek assistance from the after-sales service for problem resolution.

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.

4. About the Power-on Guide and User Interface

4.2 About the User Interface



Parameters can be manually set

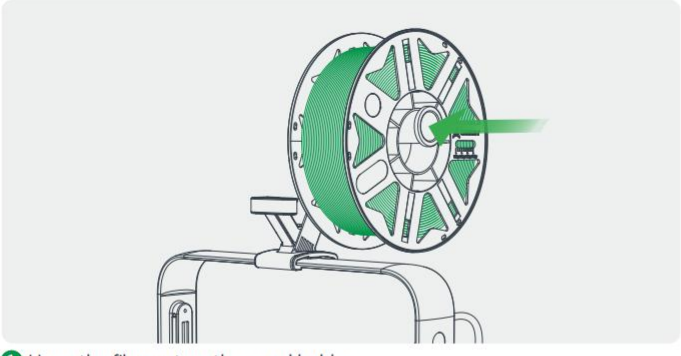
Bottom Navigation Bar:

1. Home: Check temperatures of various machine parts; monitor model printing progress during printing.
2. File Page: Select and print files on this page.
3. Control Page: Move the machine, load materials, and perform other operations.
4. Settings Page: Configure network, camera, and other functions, and view machine information.
5. Help Page: Download slicing software, export logs, and view machine wiki.

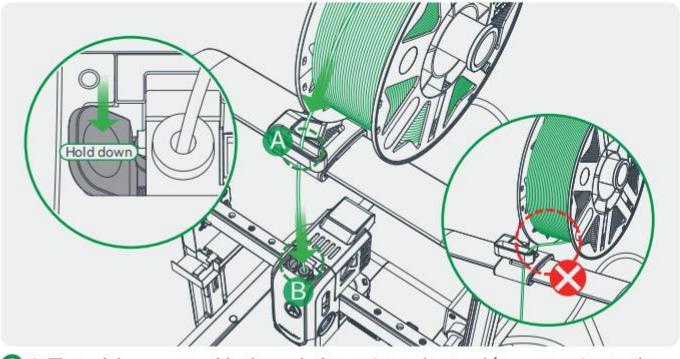
The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest software/firmware UI published on the official website.

5. First Print

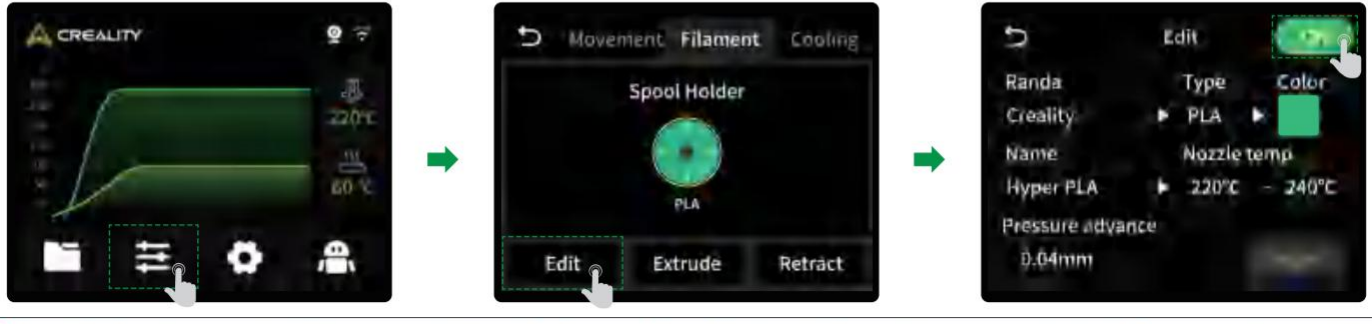
5.1 Spool Holder Filament Editing/Loading



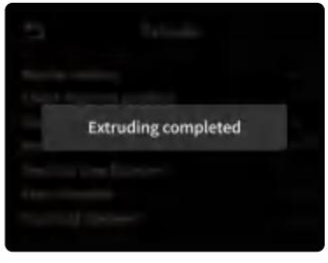
1 Hang the filament on the spool holder;

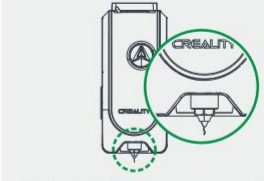


2 A. Thread the consumable through the anti-tangle stand (pay attention to the loading direction of the consumable).
B. Hold down the extruder lever and insert the filament into the deepest part of the PTFE tube until it cannot be pushed further, then release the lever.



3 Manually click on the screen to set the consumable information: Consumables → Edit, then set the brand, type, name, and color of the consumables separately, and finally click OK to save the settings.





During the feeding process, you can observe that consumables flowing out of the nozzle indicate successful feeding.

4 Click on "Extrude": Once the consumable information is set, clicking on "Extrude" will complete the automatic feeding process.

Before initiating feeding, you may slightly pull the filament outward. If you cannot pull out the filament, it indicates that the teeth have already gripped the filament; click the feed B button on the screen to initiate normal feeding. If you can pull out the filament, you need to repeat step ②.

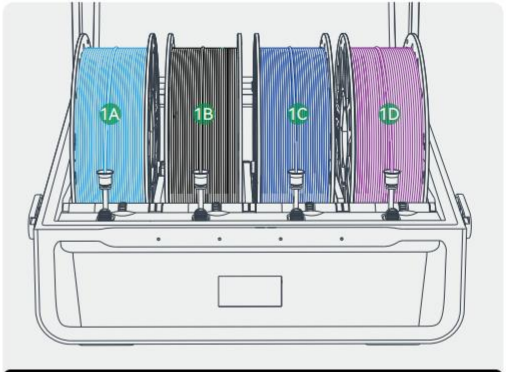
The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest software/firmware UI published on the official website.

5.2 CFS Filament Editing/Loading

1 Put in filament and wait for tightening (RFID filament does not need to be edited, in case of non-RFID filament, "?" will be displayed after reading, and filament needs to be edited manually);

Users who have not purchased CFS can skip this step.

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.



2 Check whether the filament information displayed on the screen corresponds to the filament in CFS.

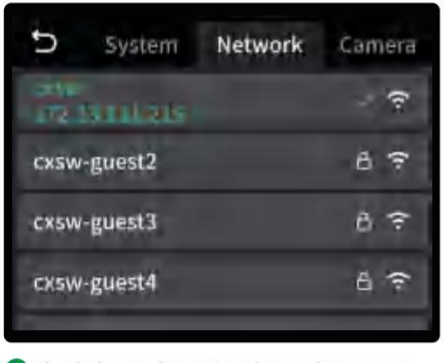
5.3 LAN Printing

5.3.1 Software Download and Installation

Creality Print

Log in to the Chuangxiangyun website to download the latest version of Creality Print slicing software:
https://www.crealitycloud.com/software-firmware/software/creality-print ;

5.3.2 Bind Machine to LAN



1 Check the machine IP on the machine screen: Settings → Network.

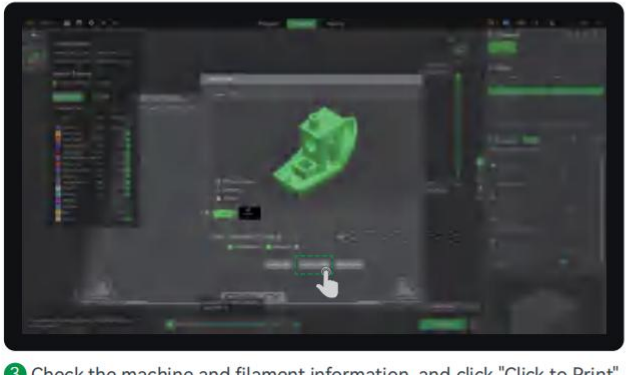
2 Enter the machine IP in the slicing software for binding: Manually add → Enter IP.

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.

5.3.3 Slice and Send to Print

1 Click "Slice Plate", and click "LAN Printing" after slicing is completed.

2 Select the bound printer.



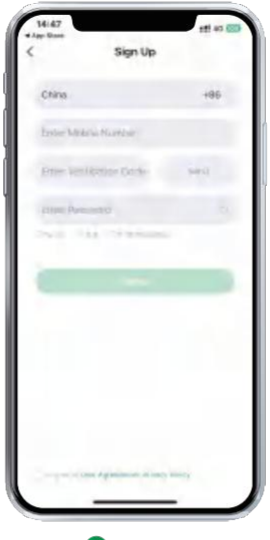
3 Check the machine and filament information, and click "Click to Print".

For more detailed slicing software usage tutorials, please log in to the Creality 3D official Wiki:
https://wiki.creality.com/en/software/update-released

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.

5.4 Creality Cloud Printing

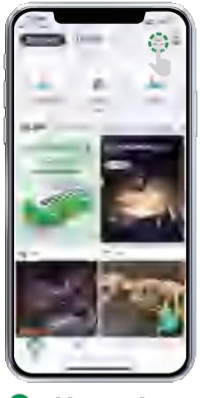
1 Search for “Creality Cloud”in the App Store, download and install it



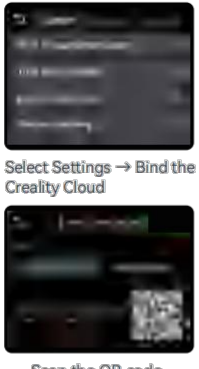
2 Sign up

3 Log in

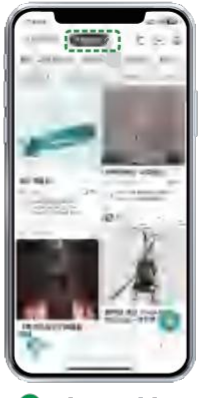
5. First Print



4 Add a new device



5 Added successfully



6 Select model on the homepage

7 Slice

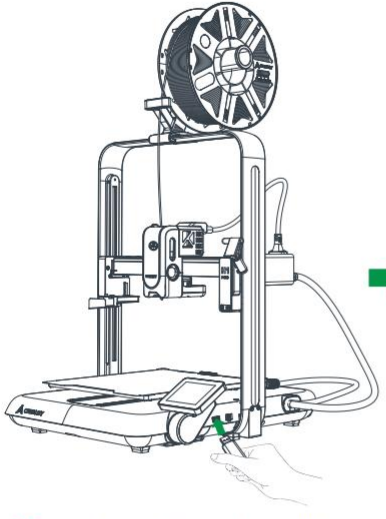
8 Print

9 Select a device

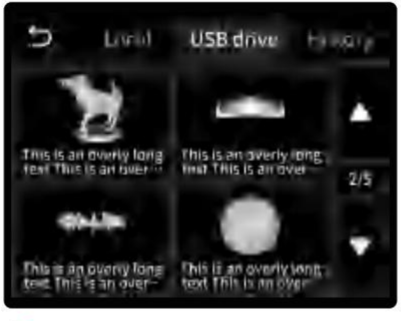
9 Printing...

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.

5.5 USB Flash Disk Printing



❶ Insert the USB flash disk into USB por



❷ Select the model from the USB flash disk

❸ Click on “Print"

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.

6. Functional Specification

6.1 CFS Filament Management/Loading/Unloading

a is the Refresh RFID button, which can be used to read filament. If the reading is successful, the remaining filament and filament color will be displayed. If the reading fails, the filament editing button will be displayed, and the filament will be displayed as "?".

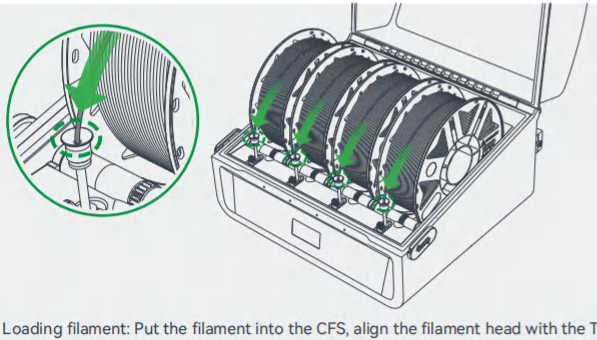
b is the empty slot state, displayed as "/", and editing is not supported;

c is the state where RFID is not read, the filament display "?". At this time, you need to click the edit button to manually edit the filament information;

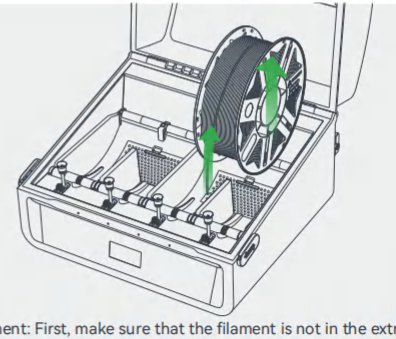
Users who have not purchased CFS can skip this step.

To avoid filament spool getting stuck, do not use cardboard spool with untreated edges or cardboard spool that are deformed as a whole;

1. Introduction to the filament management interface: The filament management page is divided into two parts: the spool holder [left] and the CFS [right]. The code above the filament in the CFS, such as 1A, indicates the slot number;



Loading filament: Put the filament into the CFS, align the filament head with the Teflon tube of corresponding silo, push it in gently, and let go after feeling the pulling force. The filament will be automatically loaded.



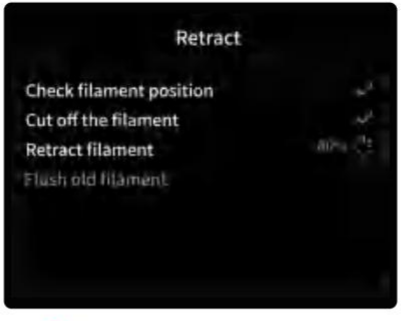
Unloading filament: First, make sure that the filament is not in the extruder, in this case,just pick up the filament and pull it out; if it is in the extruder, click the Retract button first,wait for the filament to return to the CFS, and then take out the filament.

2. Load/unload filament.

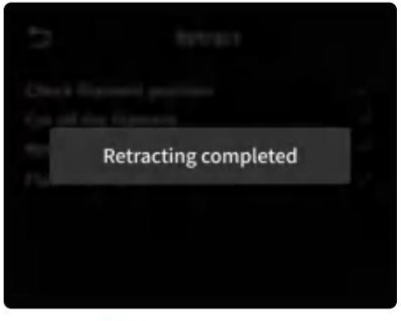
6. Functional Specification

6.2 Auto Retraction

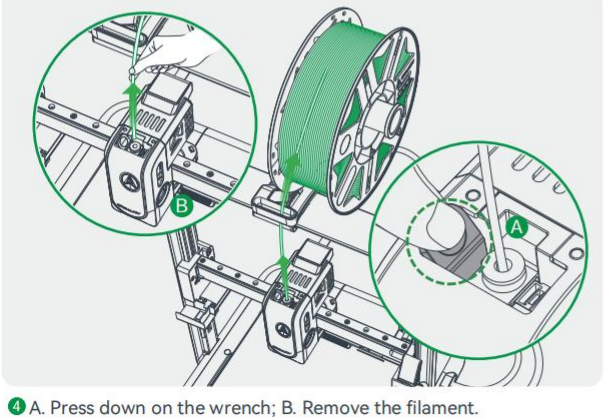
❶ Click on "Retract".



❷ Wait for the retraction to complete.



❸ Retraction completed.



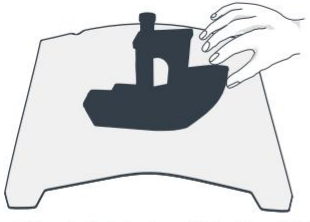
❹ A. Press down on the wrench; B. Remove the filament.

Do not manually retract the filament. Pulling out the filament manually may leave residue inside the extruder, and cause a blockage!

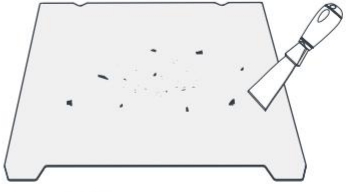
The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest software/firmware UI published on the official website.

7. Equipment Maintenance

7.1 Platform Plate Removal and Maintenance



❶ A. When printing is finished, wait for the platform plate to coolbefore removing the printing platform with the model attached;
B. Slightly bend the platform with both hands to separate the model from the platform.

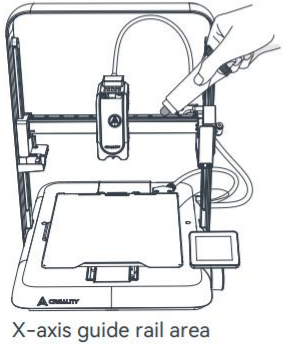


❷ If there are residual filaments on the platform plate, scrape them off lightly with a blade and print again.

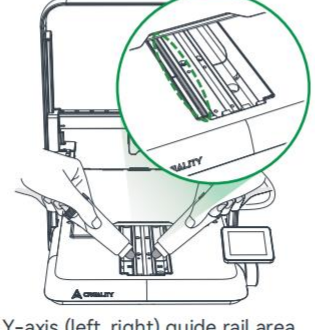
1. Don't bend too much for daily use to prevent deformation and unusability;
2. The printing platform is a perishable part, and it is recommended to replace it regularly to ensure that the first layer of the model sticks properly.

7.2 Guide Rail, Lead Screw Maintenance

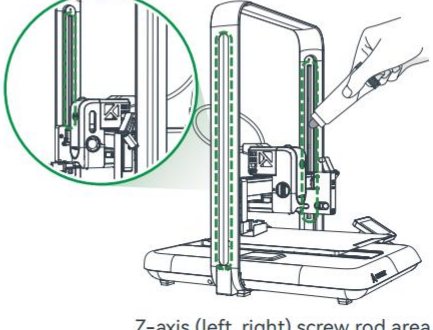
It is recommended to purchase grease and regularly perform lubrication maintenance on the guide rails and screw rods.
(The application of grease should be moderate to avoid excessive application, which may cause dust contamination).



X-axis guide rail area

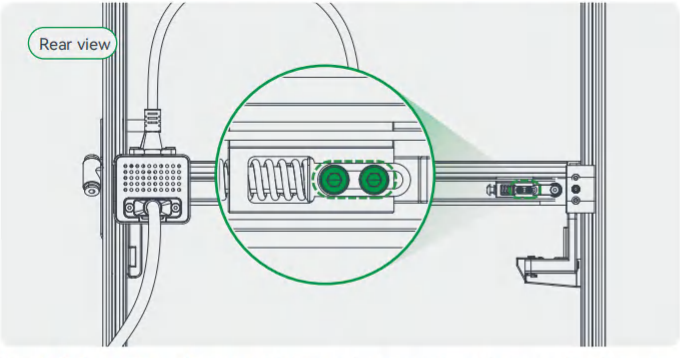


Y-axis (left, right) guide rail area

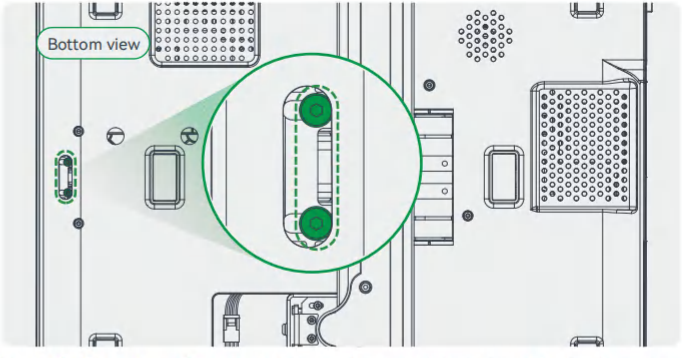


Z-axis (left, right) screw rod area

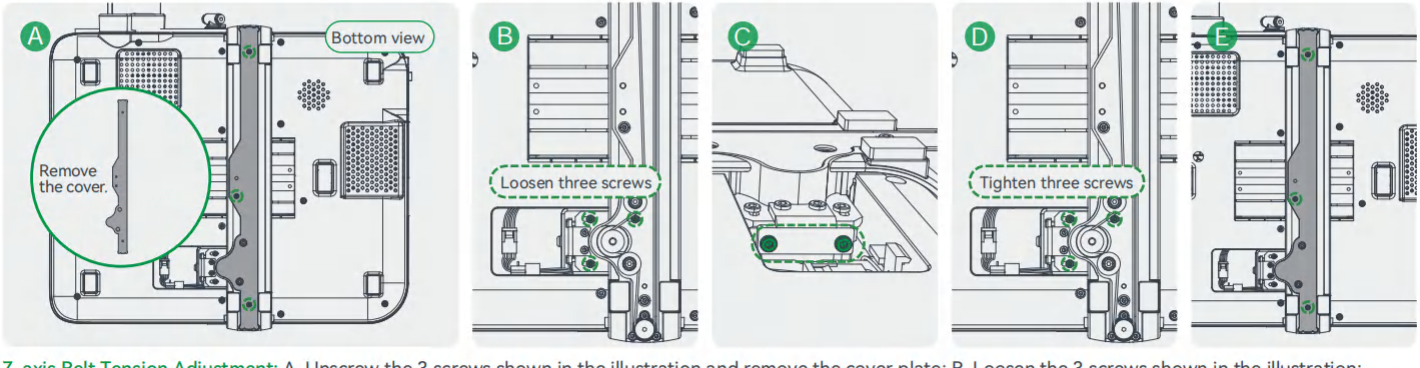
7.3 Adjustment of Belt Tension for X-Axis, Y-Axis, and Z-Axis



X-axis belt tension adjustment: Loosen the two screws shown in the diagram, the belt will automatically tension, then tighten the screws.



Y-axis belt tension adjustment: Loosen the two screws shown in the diagram, the belt will automatically tension, then tighten the screws.



Z-axis Belt Tension Adjustment: A. Unscrew the 3 screws shown in the illustration and remove the cover plate; B. Loosen the 3 screws shown in the illustration; C. Tighten the 2 screws shown in the illustration to tension the belt (conversely, loosen the 2 screws to loosen the belt); D. Retighten the 3 screws loosened in step B; E. Reinstall the cover plate removed in step A.

Self-check: Please click the screen for equipment self-check after completing the belt tension adjustment.

7.4 Teflon tube Replacement

During multi-color printing, a worn teflon tube can cause feeding issues. We recommend users check the condition of the teflon tube weekly. If any wear is found, please replace it promptly to avoid affecting normal printing.

https://wiki.creality.com/zh/ender-series/ender-v4

For more detailed maintenance and repair guidance,
please visit the Creality official wiki.

8. Equipment Specifications

Equipment Specifications	
Model	Ender V4
Modeling Dimensions	220*220*235mm
Leveling method	Auto Leveling
Number of extruder	1
Extruder diameter	0.4mm
Slice thickness	0.1-0.35mm
Precision	±0.2mm
Nozzle temperature	≤300℃
Hotbed temperature	≤100℃
Filament type	Hyper-PLA/PLA/PLA-CF/PA-CF/ASA/TPU/PETG/ABS
Rated power	900W
Rated voltage	100-240V~, 50/60Hz
Filament detection	Yes
Power loss recover	Yes
Printing Method	USB flash drive printing/LAN printing/Cloud printing Gcode
Print file format	Creality Print, Orca 2.0 or above, Cura 5 or above Windows/
Slicing software	Mac OS/linux
Operating system	

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit differentfrom that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC’s RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

IC warning

- English:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

- French:

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1) L'appareil ne doit pas produire de brouillage;

2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

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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