CREALITY

Create reality, achieve dreams

K1 Max

K1 Max

3D Printer User Manual

V1.0

Dear Users

Thank you for choosing our products. For the best experience, please read this User Manual carefully and strictly follow the instructions to operate the printer. Our teams will always be ready to provide you with the best services. Please contact us via the phone number or e-mail address provided at the end of this User Manual when you encounter any problem with the printer. For a better experience in using our products, you can also learn how to use the printer in the following ways:Accompanied instructions: you can find the relevant instructions and videos in the USB flash disk.

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.
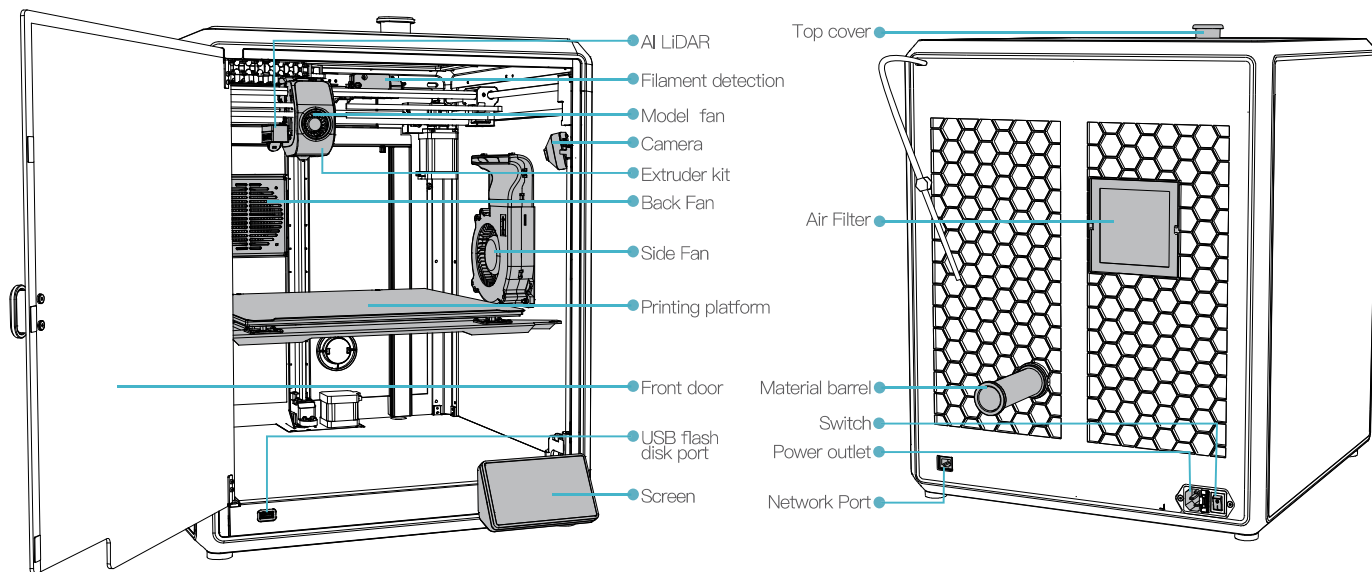
NOTES

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. About the Device

1.1 About the Printer

AI LiDAR

Filament detection

Model fan

Camera

Extruder kit

Back Fan

Side Fan

Printing platform

Front door

USB flash
disk port

Screen

Top cover

Air Filter

Material barrel

Switch

Power outlet

Network Port

1.2 Device Specifications

| Basic Parameters	
Product Model	K1 Max
Dimensions	435*462*526mm
Max. Build Dimensions	300*300*300mm
Print Technology	FDM
Rated Voltage	100-240V~，50/60Hz
Rated Power	1000W
Ambient temperature	10℃-30℃ / 50℉-86℉
Extruder	Sprite Direct Drive
Supported Filament	PLA/ABS/Carbon/PETG/PET/TPU95A
Max. Heated Bed Temperature	120℃
Max. Nozzle Temperature	300℃
Screen	4.3 inch touch screen
Printing Method	USB Flash Disk/LAN Printing/Creality Cloud Printing
Connection	USB flash disk/WIFI/Ethernet
Power Loss Recovery	Yes
Filament Detection	Yes
Auto leveling	Yes
Camera	Yes
AI LiDAR	Yes

1. About the Device

1.3 Packing List
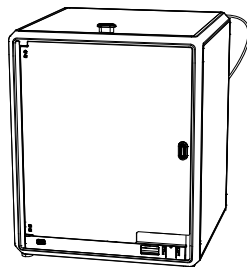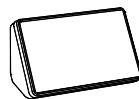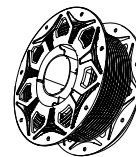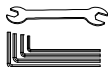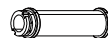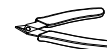

① Printer ② Screen ③ Filament

Tool Box List

④ Wrench and Screwdriver ×1

⑤ Blade ×1

⑥ Material barrel ×1

⑦ Cutting plier ×1

⑧ 1.2mm nozzle cleaner ×1

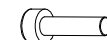⑨ USB flash disk ×1

⑩ Lubricating Grease ×1

⑪ Power Cable ×1

⑫ M6 socket spanner ×1

⑬ Glue Stick ×1

⑭ Damping Pads ×4

⑮ Belt tensioning screw M3x12 x2
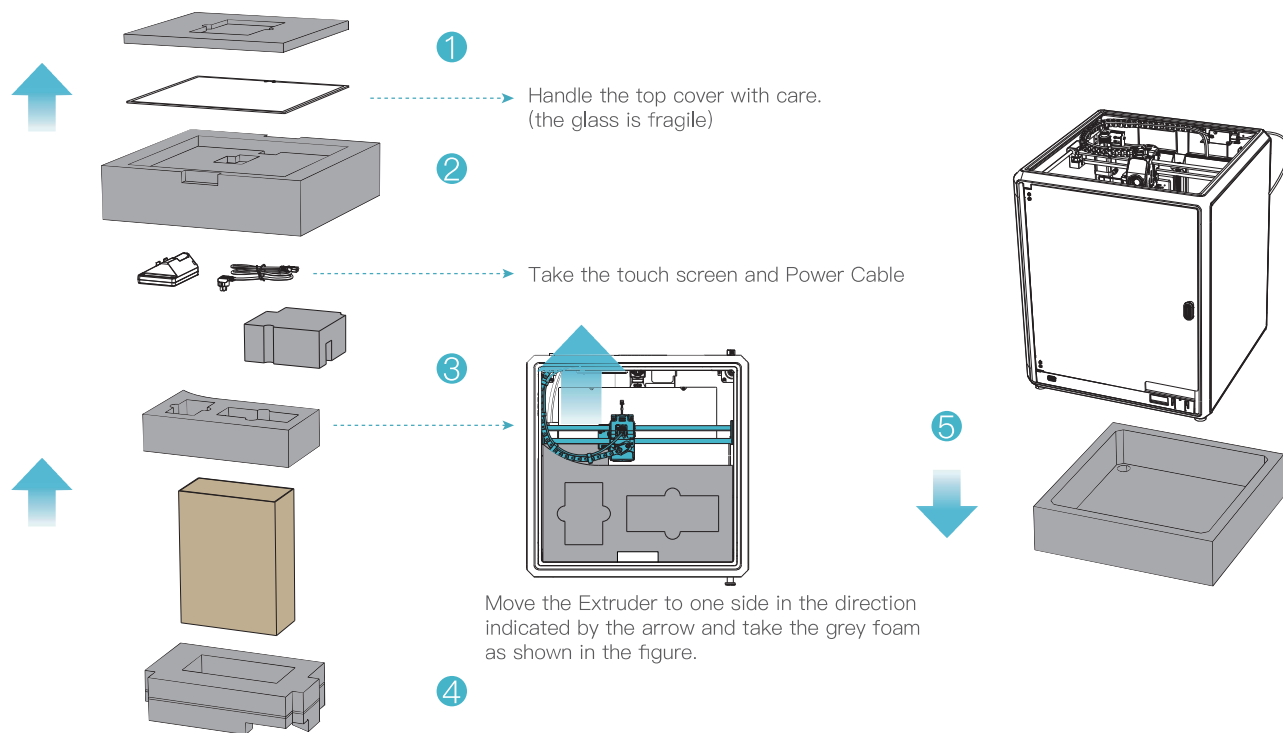
⑯ Quick Guide ×1

⑰ After-sales Services Card ×1

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

2. Unboxing

2.1 Unpacking Steps

Take the packing cotton and tools in the order as shown in figure.

① Handle the top cover with care. (the glass is fragile)

②

Take the touch screen and Power Cable

③

④ Move the Extruder to one side in the direction indicated by the arrow and take the grey foam as shown in the figure.

⑤

2.2 Install the Product

① connect the touch screen to the flat cable extended from the base according to Figure A. Then snap the touch screen into the slot in the baseplate, as shown in Figure B. (The direction is as shown in the figure; otherwise, the screen interface may be damaged.)
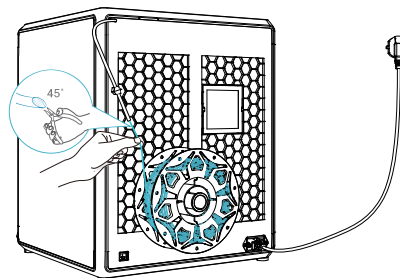
A   B

Push down
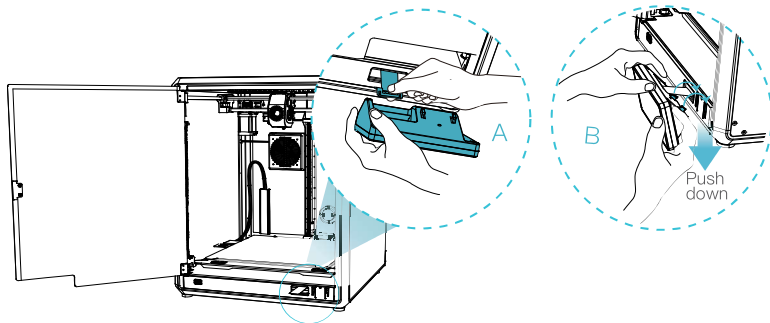
⚠ Caution:
● Do not power up the machine while you are connecting or disconnecting the touch screen.
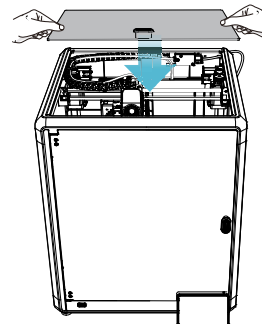● The flexible flat cable of the base is pulled lightly and broken carefully.

② A:Connection and power on.
   B:Install the material barrel.
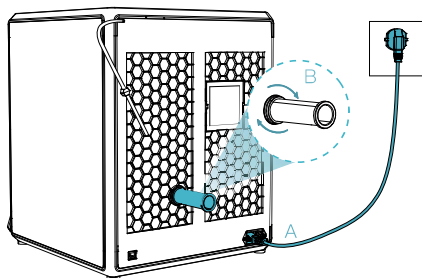
③ Load filaments.(Insert the filaments into the deepest part of Teflon tube until it cannot be moved.)

④ Install the top cover.(Put the top cover gently on the top of the machine.)
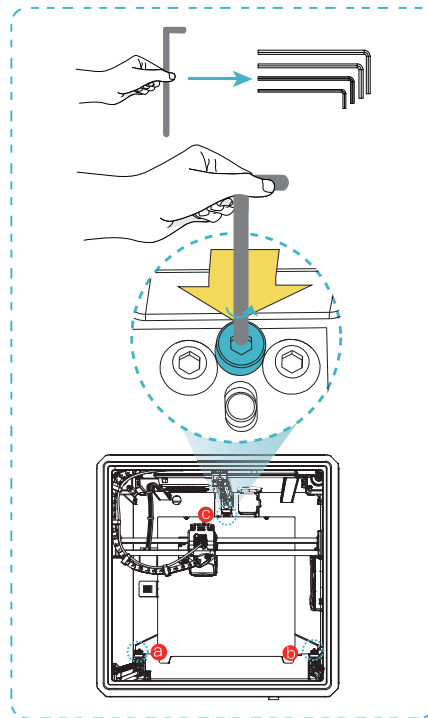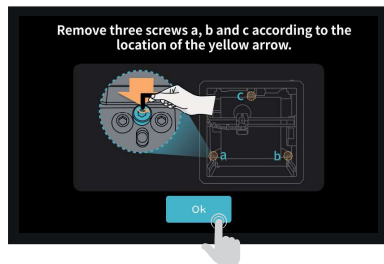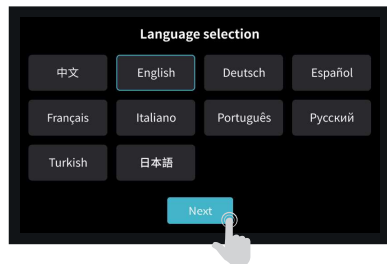
B

45°

A

⚠ Caution:

1. When printing low-temperature filaments such as PLA and flexible filaments, remove the clear top cover if the room temperature exceeds 30°C.

2. When printing high melting-point filaments such as non-PLA and non-flexible filaments, be sure to keep the forming chamber temperature with the clear top cover closed to avoid cracking of the mould.
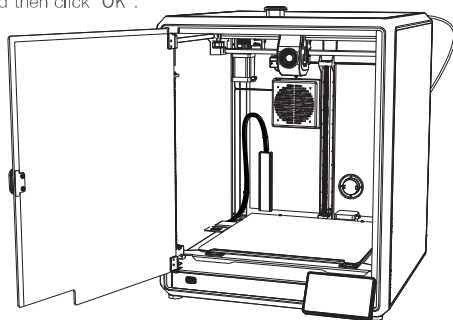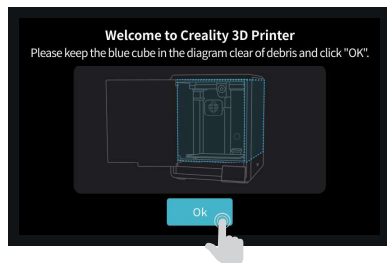
2. Unboxing

2.2 Install the Product

⑤ Select a language and click "Next", Remove three screws a, b and c according to position indicated by the yellow arrow. click "OK" on the screen.
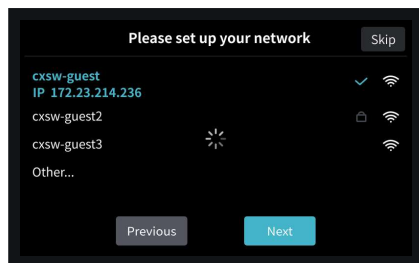
Language selection

中文	English	Deutsch	Español
Français	Italiano	Português	Русский
Turkish	日本語		

Next

Remove three screws a, b and c according to the location of the yellow arrow.

c

a   b

Ok

⑥ Keep the blue cube in the figure clean of debris and then click "OK".

Welcome to Creality 3D Printer
Please keep the blue cube in the diagram clear of debris and click "OK".

Ok

c

a   b

2.3 Power-on guide

Please set up your network | Skip

cxsw-guest
IP 172.23.214.236 ✓ 📶

cxsw-guest2 🔒 📶

cxsw-guest3 📶

Other...

Previous | Next

① Network Settings

Time Zone Settings ✓

● UTC-12（IDLW)
○ UTC-11（SST)
○ UTC-10（HST)
○ UTC-9:30（MIT)
○ UTC-9（AKST)
○ UTC-8（PST)

Previous | Next

② Time Zone Settings

Creality Cloud binding | Skip

Please scan the code to bind your device using the Creality Cloud

Previous | Next

③ Creality Cloud binding

Self-inspection

Welcome to the self-check process

1.Please place the printing platform;
2.The self-check process is expected
to take around 11 minutes.

Previous | Start checking

④ Self-inspection

Self-inspection

Nozzle heating ✓
Hotbed heating ✓
Heat break cooling fan　Detecting...
Mainboard cooling fan
Input Shaping
Auto Leveling

Do not touch the printer
during the self-check
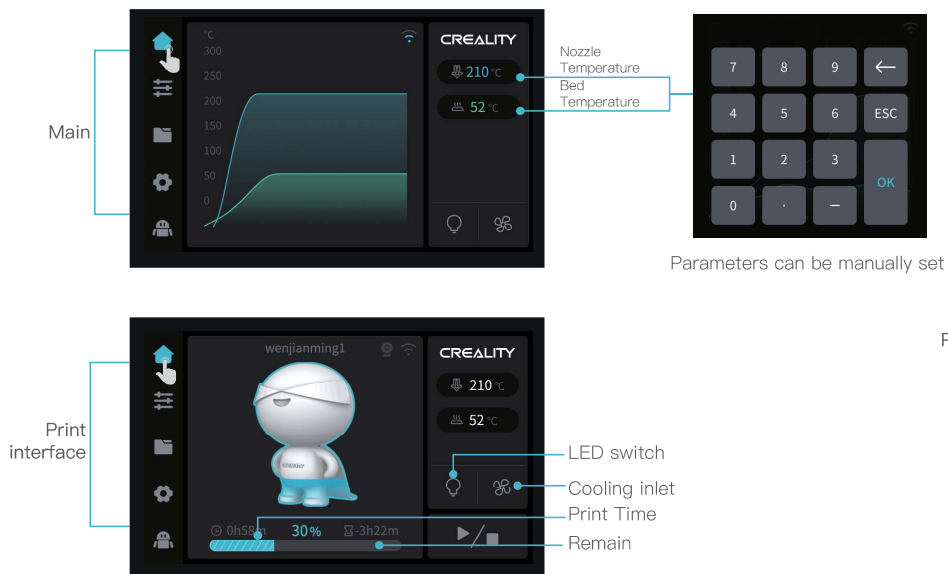
⑤ Self-testing

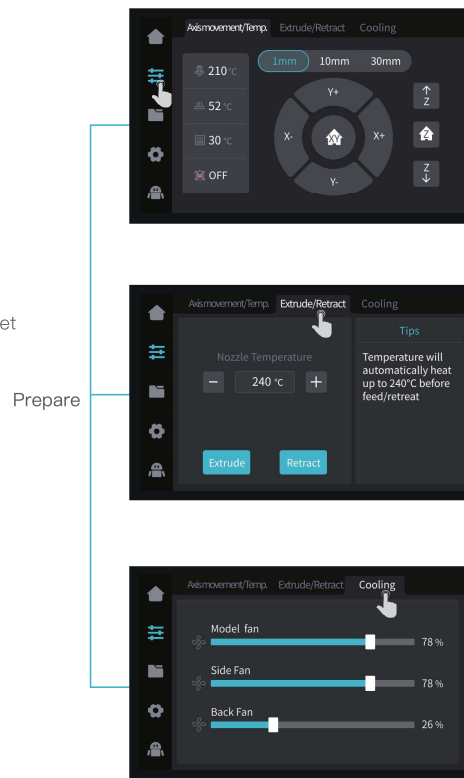Self-test completed

Ok

⑥ Self-test completed

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

3. About the User Interface

3.1 Tune、Prepare

Main

Nozzle Temperature
Bed Temperature

Parameters can be manually set

Print interface

LED switch
Cooling inlet
Print Time
Remain

Prepare

Note: The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest firmware UI published on the official website.
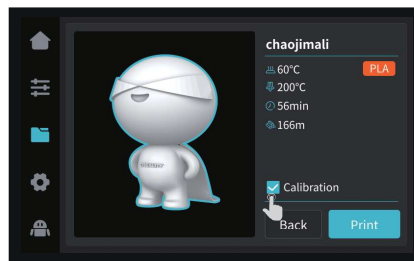
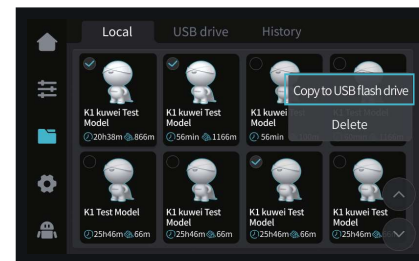# 3. About the User Interface

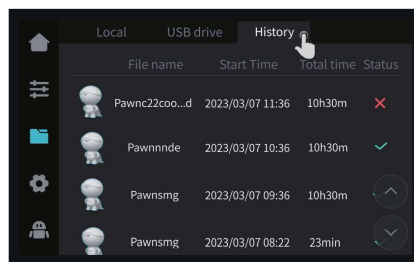## 3.2 Files

① Local model

② Printing

③ Press and hold on the model to multi-select and copy it to a USB flash drive
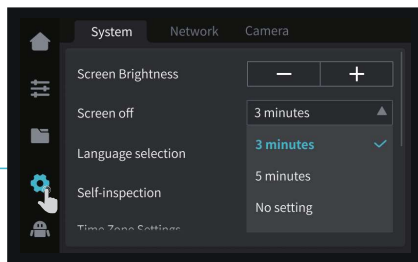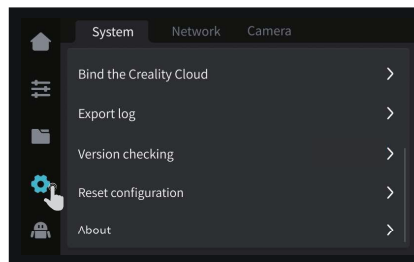

④ USB flash drive model

⑤ History

Note: The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest firmware UI published on the official website.
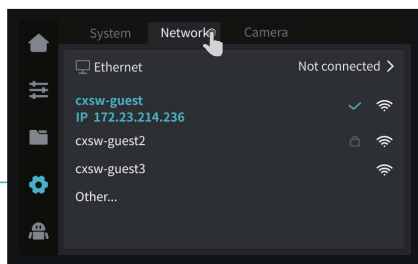
3.3 Tune、Support

System Network Camera

Screen Brightness   —   +

Screen off   3 minutes ▲

Language selection   **3 minutes** ✓

Self-inspection   5 minutes

Time Zone Settings   No setting

System

System Network Camera

Bind the Creality Cloud   ›

Export log   ›

Version checking   ›

Reset configuration   ›

About   ›

System

Help   Error history   Upload Log

FAQ   ›

Online Manual   ›

Help

Tune

System **Network** Camera

🖵 Ethernet   Not connected ›

cxsw-guest
IP 172.23.214.236   ✓ 📶

cxsw-guest2   🔒 📶

cxsw-guest3   📶

Other...

Network

Support

Help   **Error history**   Upload Log

Error Code	Time of Occurrence	Operate
3002	2023-02-06 11:52:08	Details
3001	2023-02-05 11:52:08	Details
3001	2023-02-04 11:50:08	Details
3001	2023-02-04 11:36:06	Details

Error history

Help   Error history   **Upload Log**

Please click the button below to upload your log
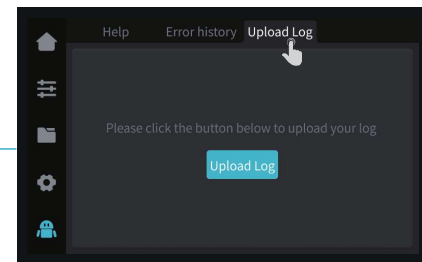
Upload Log

Upload Log

💡 Note: The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest firmware UI published on the official website.
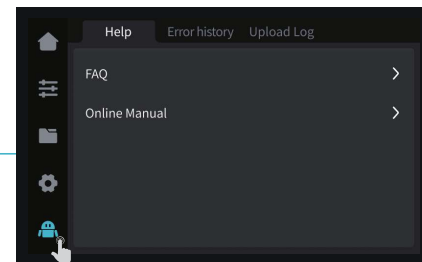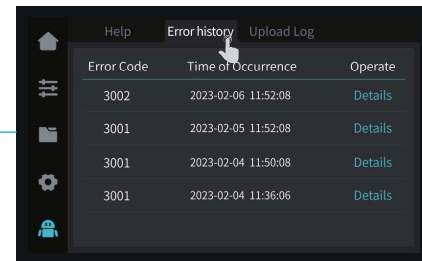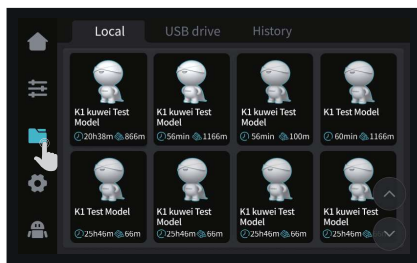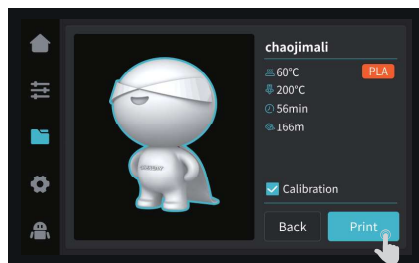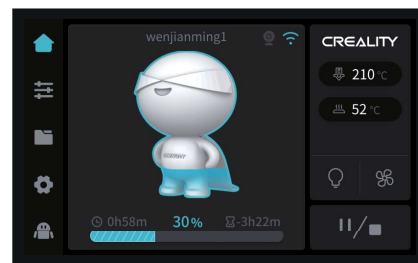
4.1 Local Printing

① Local model

② Select to print

③ Printing

Note: The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest firmware UI published on the official website.
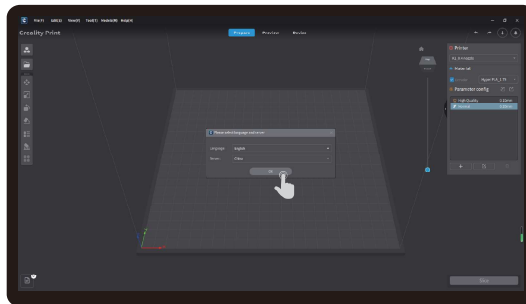
4.2 LAN Printing
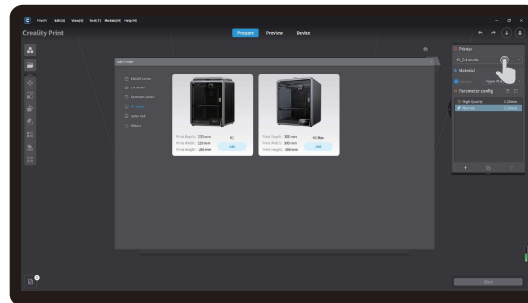
Creality Print

① Download at (www.crealitycloud.com) or find the software on a USB flash drive and install it.
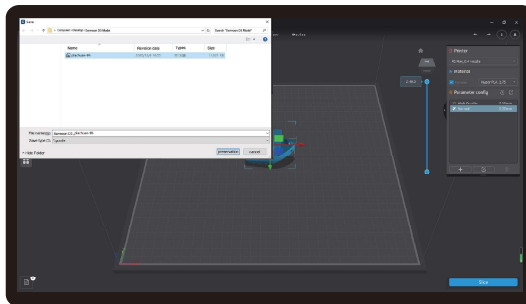
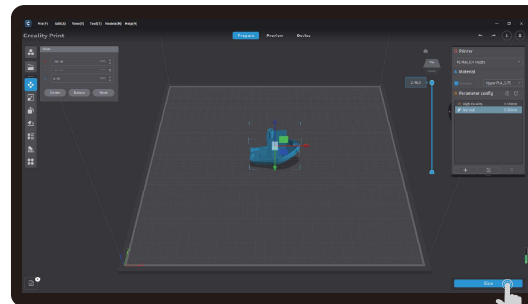Tips: the computer must be in the same local area network as the printer

② Choose a language and region

③ Choose a Printer
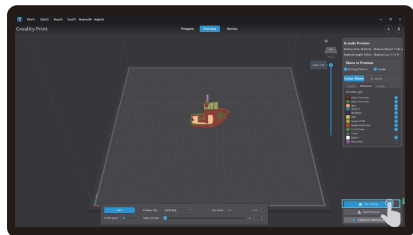
④ Click on "Import Model" and select the model file

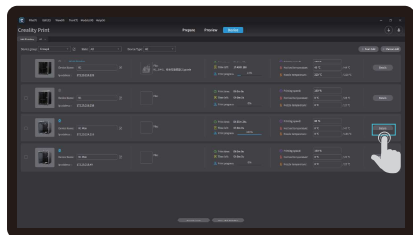⑤ Open the model and click on "Start Slicing"

Note: The current interface is for reference only. Due to the continuous upgrading of functions, it shall be subject to the latest firmware UI published on the official website.
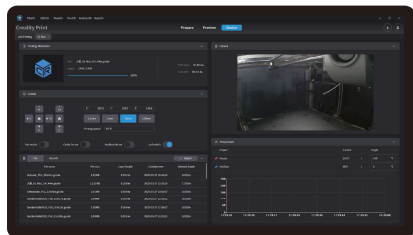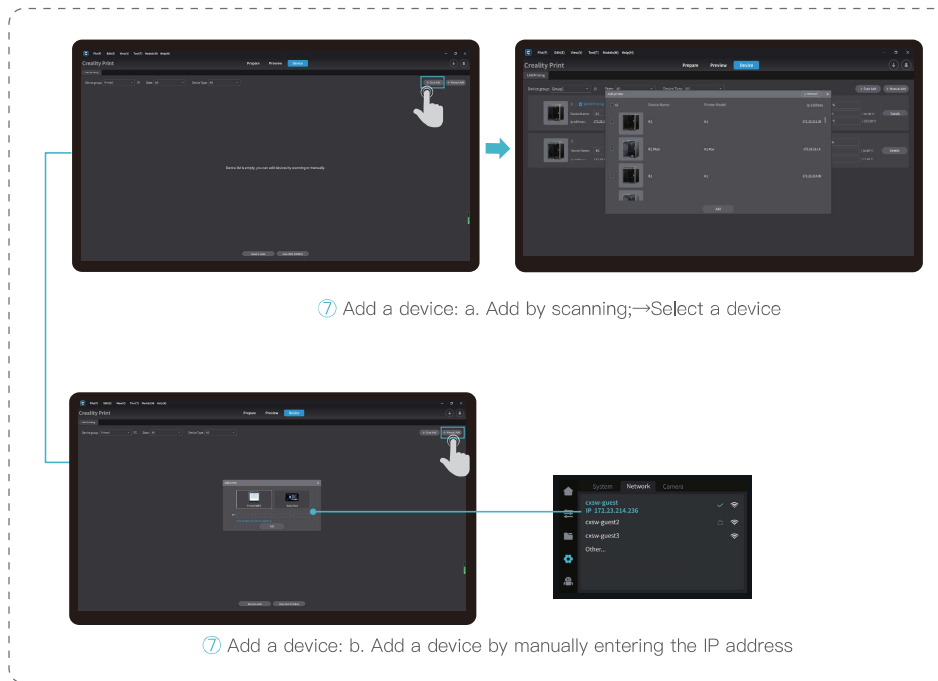
4. First Printing

4.2 LAN Printing

⑥ Selection of LAN printing

⑧ Device List

⑨ Device Details

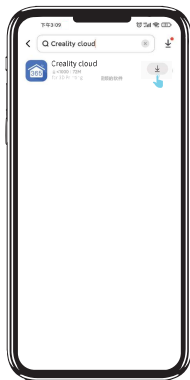⑦ Add a device: a. Add by scanning;→Select a device

⑦ Add a device: b. Add a device by manually entering the IP address

4.3 CrealityCloud printing

1. Scan the QR code and download the app

2. Download
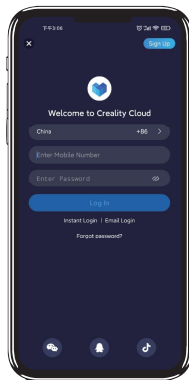
3. Sign up for an account
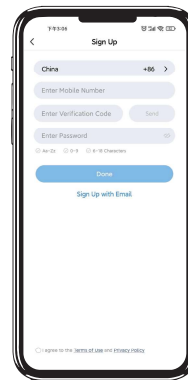
4. Log in

4.3 CrealityCloud printing

5. Add a new device

6. Add a device

① Select Settings → Bind the Creality Cloud

Bind the Creality Cloud
Please scan the code to bind your device using the Creality Cloud

② Scan the QR code
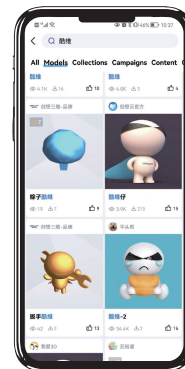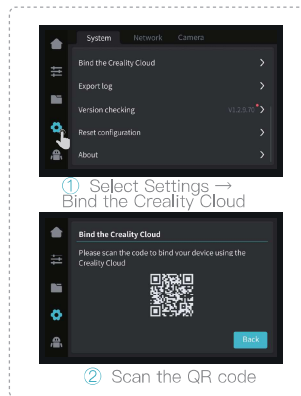
7. Select model on the homepage
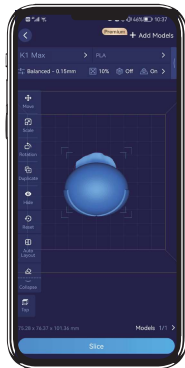
8. Slicing

9. Print

10. Select a device

11. Printing

5. Functional Specification

5.1 Extrude、Filament Retreat

Extrude
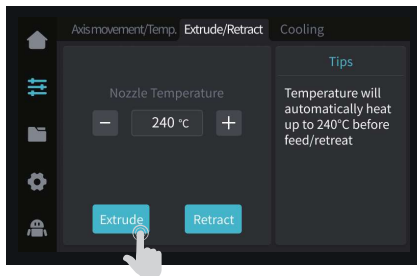
Filament Retreat

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

5.2 Calibration

Select calibration, the machine will be leveled before printing the model and use AI LiDAR for first-layer detection.

First-layer detection of printing:

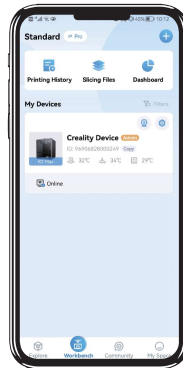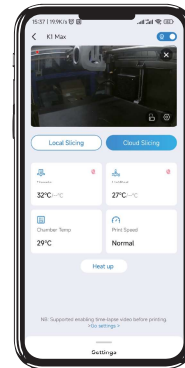Use AI Lidar and first-layer detection algorithm to check the first layer of the model to be printed, and report any first-layer quality problem found to the system, so as to prevent printing failure due to first-layer printing problems and to avoid wasting a lot of time and materials.

AI LiDAR：

① It's composed of laser and sensor. The laser is used to detect the surface of the measured object;

② The sensor is used to record the changes and generate point cloud data for the control system to call and process;

③ It's available to be applied to first-layer detection of printing.

5.3 AI function

① When AI detection is turned on, the chamber camera will monitor the process of printing. If any defect is found during the printing, a window will pop up to remind you.

② When you check the Push Pause Printing, the printing will pause if there is any printing defect.

AI function
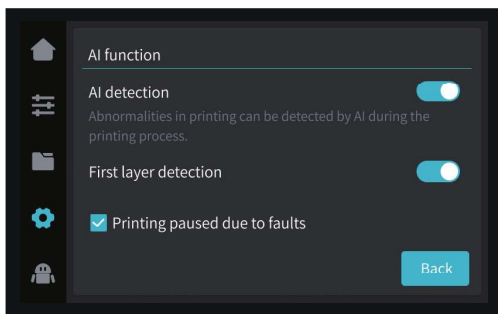
AI detection
Abnormalities in printing can be detected by AI during the printing process.

First layer detection
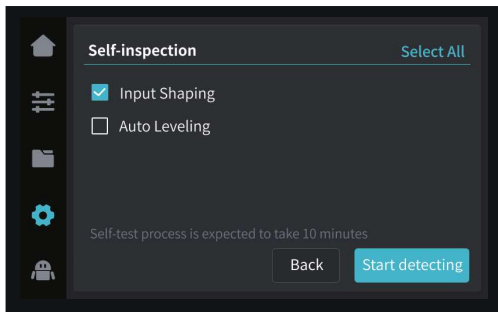
☑ Printing paused due to faults

Back

After printing starts, if there are foreign objects on the platform or the previous printed model is not removed, the printer will pause printing and give a reminder. (To avoiding damaging the extruder) After turning off the first—layer detection, the first—layer detection will not be performed during the calibration.

Note: Push pause printing if Any Fault is effective for both the AI detection and first—layer detection.

5.4 Self—inspection

Self-inspection   Select All

☑ Input Shaping

☐ Auto Leveling

Self-test process is expected to take 10 minutes

Back   Start detecting

Input Shaping：

Ringing refer to the corrugated unevenness on the surface of the model that may be caused by the resonance of the machine or the action of external forces during the printing process.
To solve this problem, the input shaping sensor is used to actively obtain the resonance frequency of the 3D printer, and algorithm is applied to correct this state to achieve the purpose of eliminating the model chatter marks. Using the input shaping can effectively suppress the machine vibration and improve the printing quality of the model to obtain a smooth model surface.
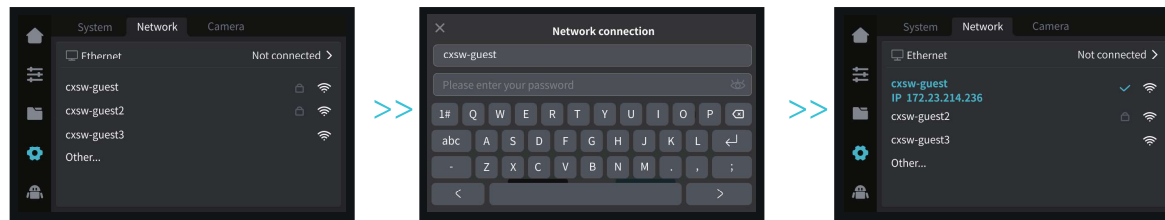
5.5 Network Settings

5.5.1 Wired connection

When the printer is connected to the network cable, you can click Settings → Local Network on the screen to check whether it is connected.
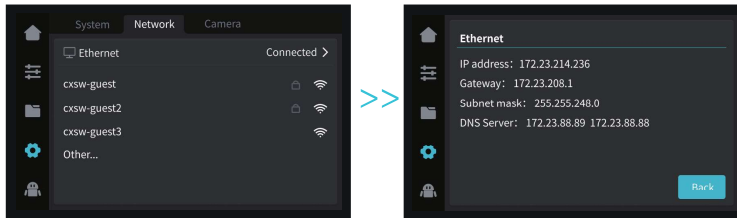
5.5.2 WIFI connection

Click Settings → Network → WIFI Connection on the screen, select the corresponding WIFI and enter the password to finish the WIFI connection. (only support 2.4 GHz).

6.1 Precautions for printing

6.1.1 Lubrication and maintenance

Y–axis optic axis 1
X–axis optic axis 1
X–axis optic axis 2
Y–axis optic axis 2
Screw rod 3
Z–axis optic axis 3
Z–axis optic axis 1
Screw rod 1
Screw rod 2
Z–axis optic axis 2
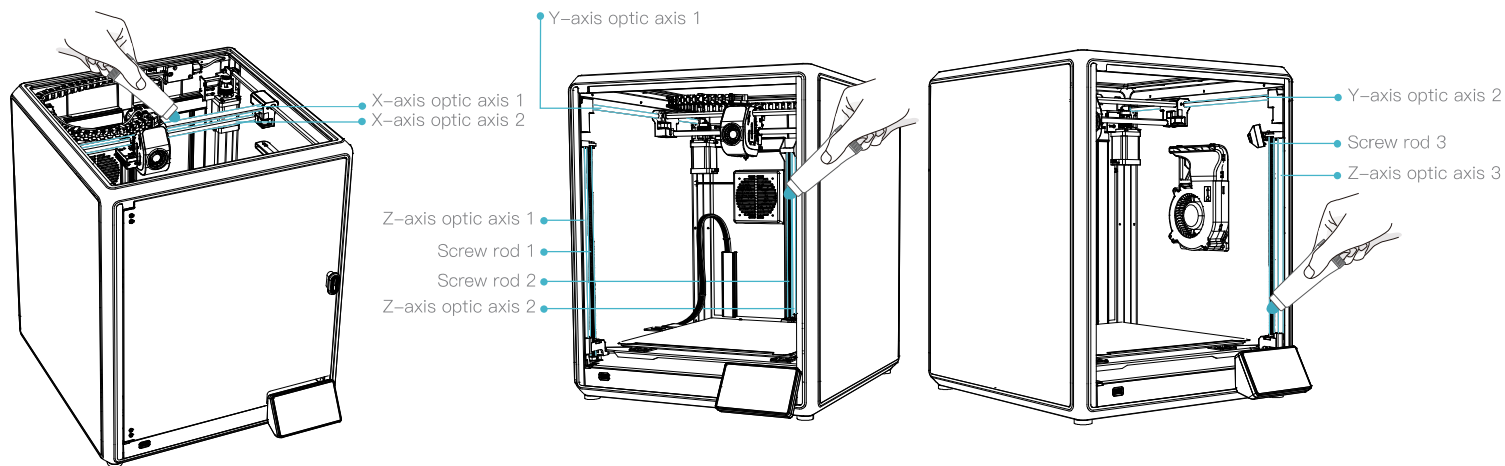
Regular maintenance for 300 hours: Please maintain the blue areas in Figure by greasing and lubricating them at regular intervals.
Grease should only be applied to the middle part by dispensing and then applied automatically and evenly by movement.

6.1 Precautions for printing

6.1.2 Use and maintenance of flexible platform

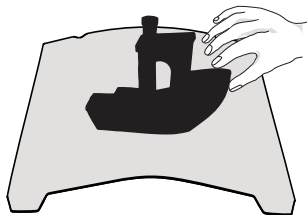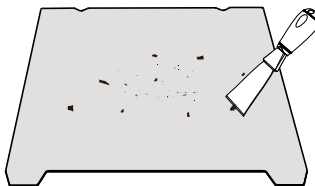① Together with the flexible platform after the printed model has been cooled down Remove from the device and partially bend the platform slightly to separate the model from the platform.(No excessive bending of the platform to prevent it from being deformed and unusable)
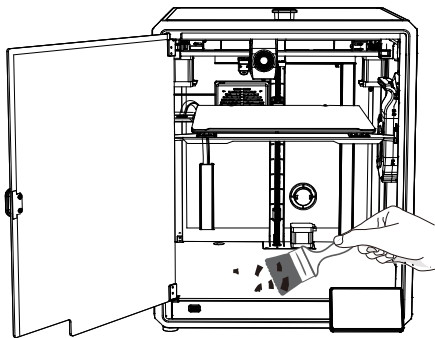
② The residue of the platform filaments can be scraped off with a blade. Be cautious of safety when using.
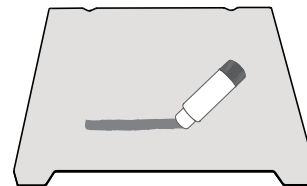
③ When the first layer of the model is not glued, it is recommended to apply glue stick evenly on the surface of the platform.
The residual solid glue left after the printing can be cleaned with clean water.

6.1.3 Cleaning of debris inside the chassis

Reminder: When the printing time of the device exceeds 300 hours, or if the printing platform or nozzles have been replaced, the distance between the platform and nozzles may change that caused the first layer of the model may not stick firmly, resulting in printing failure. Please calibrate the platform regularly.

Reminder: Since the printing platform is quick-wear, it is recommended to replace the printing platform regularly to ensure that the first layer of the model is adhered.

6. Tips and Routine Maintenance

In the event that any of the above problems arise and cannot be resolved:

① Please visit https://www.crealitycloud.com/product, click "Products" and select the right model,
and then click "Related" to view the tutorials on after-sales service;

② Or contact our after-sales service center at +86 755 3396 5666, or send e-mail to cs@creality.com.

6.2 Maintenance Items

	Maintenance instructions	
Machine cleanup	Clean the debris inside the machine to ensure that its operation is not affected.	Before each print
Hot end	Check if the wire output is normal, if not, please check if the extruder is blocked.	After each change of filaments
Printing platform	Check the surface of the platform for residual filaments and glue, if so, clean the surface of the platform.	Before each print
Motion mechanism	XYZ optic axis lubrication.	Cumulative print time per 500 hours
Air filtration	Replace the air filter cartridge.	Cumulative print time per 300 hours
Equipment self-test	Optimization of vibration veins.	Cumulative print time per 300 hours
	Auto Leveling.	
Filament replacement	Replacement of filaments of the same kind: follow the normal Retreat – Feed process.	/
	Replacement of different filaments: Preheat the nozzle to reach the target temperature of the current filament; then retreat it, replace with the target filament, and preheat the nozzle to the higher filament extrude temperature of the two filaments; feed for 30s until the filament has been completely extruded, and finally set the nozzle temperature to the temperature of current filament nozzle.	

6.3 Installation of Damping Pads

The Damping Pads can improve the stability of printer during the printing. The specific installation method is as shown in the figure below:
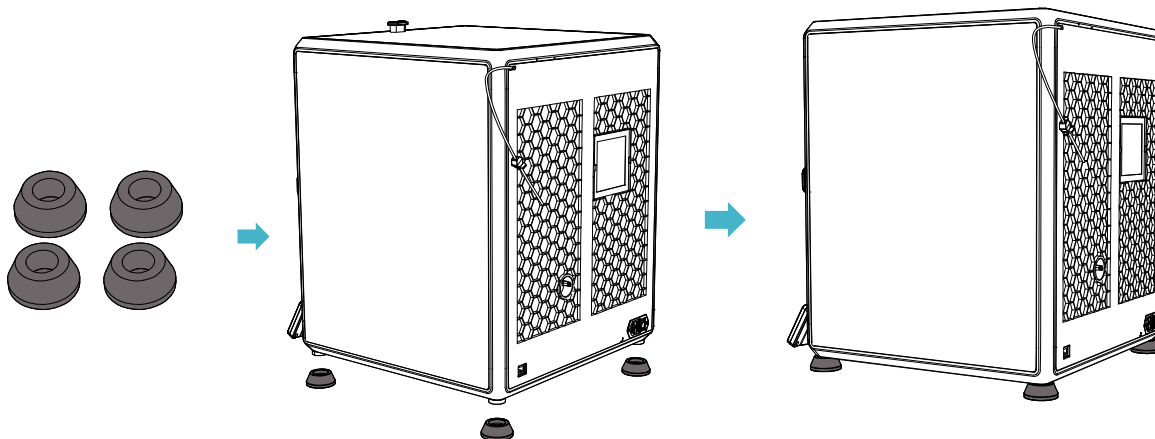
Since each model is different, the actual product may be different from the picture. Please refer to the actual product. The final interpretation right belongs to Shenzhen Creality 3D Technology Co., Ltd.

SHENZHEN CREALITY 3D TECHNOLOGY CO., LTD.
Add:18th Floor, JinXiuHongDu Building, Meilong Road, Xinniu Community,
Minzhi Street, Longhua District, Shenzhen City, China.
Official Website: www.creality.com
Tel：+86 755-8523 4565
E-mail: cs@creality.com