QIDI TECH
Xmax3 Large 3D Printer

QIDI Xmax3 Large 3D Printer User Guide

Contents

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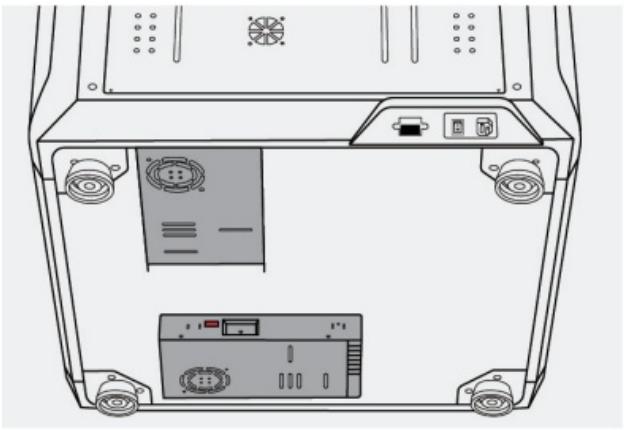
(All images are for illustrative purposes only, actual product may vary due to product optimization)

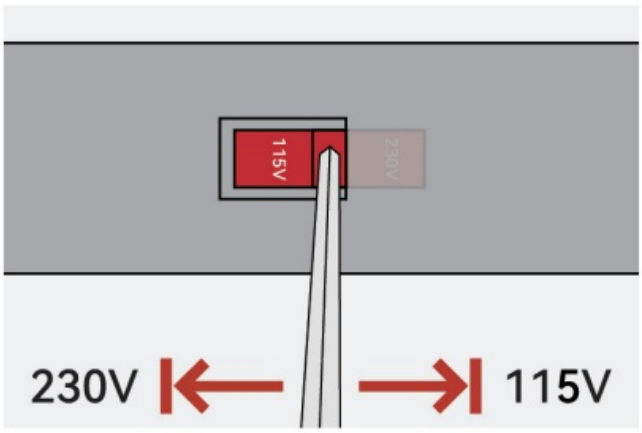
Usage Notice

- Do not place the machine in flammable and explosive materials or near high heat sources, please place the machine in a ventilated, cool, and dust-free environment.
- Ensure the machine is powered off(unplug the power cord) before performing maintenance or modifications.
- Before connecting the power, please follow the power setup instructions to ensure that the voltage is correct.
- Never reach inside the QIDI printer while they are in operation.
- Children should be under constant supervision when using QIDI products.
- The printer contains high-speed moving parts, so be careful of hand pinching.
- There is a potential risk of burns: the print heads of the QIDI printers can reach temperatures above 300 ° C, while the hot bed can reach temperatures above 100 ° C. Do not touch either of these parts with your bare hands.
- Do not place the printer in a vibrating or other unstable environment. Otherwise, the shaking of the machine will affect the printing quality.
- After printing, use the residual temperature of the print head to clean the filament around the nozzle with the dedicated tools in time. Do not touch either of these parts with your bare hands.
- Regularly do product maintenance, clean the printer body with a dry cloth when the power is off, and wipe off dust, bonded printing materials, and foreign objects on the optical axis.
- If the machine is in standby mode for a long time, please unplug the power of the QIDI products.
- If the machine has not been used for a long time, please pay attention to protecting the printer from dust and dampness.
- There are manuals, slicer software, and other related information on the USB flash drive. (The information in the USB flash drive may not be the latest. You can obtain the latest information by contacting the After-sales Service marked at the end.

Power Settings

When products are manufactured, we have switched the voltage values according to the sale countries/ regions, but please ensure that you need to switch it to the voltage values of your region/ country. (The one marked “230V” is suitable for 220V, and the one marked “115V” is suitable for 11 OV; if in doubt, please contact our after-sales technical support.)



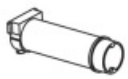


Mismatching voltage input will result in products breakdown.

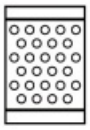
Accessory List


Dryer Box


500g Filament


Filament Spool Holder


Holder Cover


Desiccant


Power Cord


Ethernet Cable

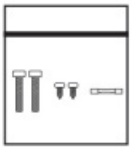

Scraper


Allen Key H1.5
Allen Key H2
Allen Key H2.5


7mm Spanner


Flat Head Screwdriver

0.4mm Nozzle Cleaning Tool

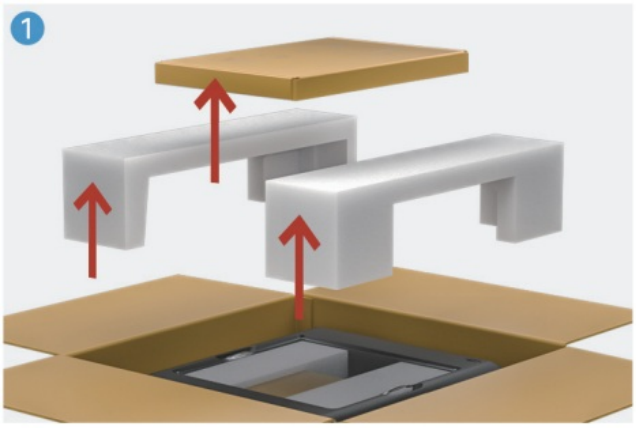

Spare Parts Kit


Rubber Feet

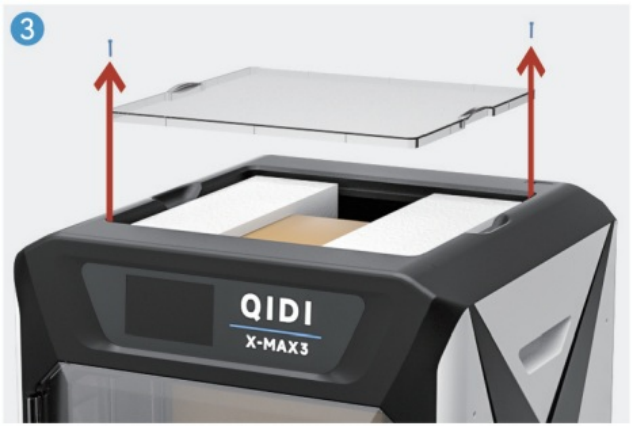

Glue Stick


USB 2.0 Flash Drive

Starting Up



Remove the top foam and accessory box 1, then extract the printer.



- Remove the screws fixing the upper cover and open it. Take out the all foam and accessory box 2.

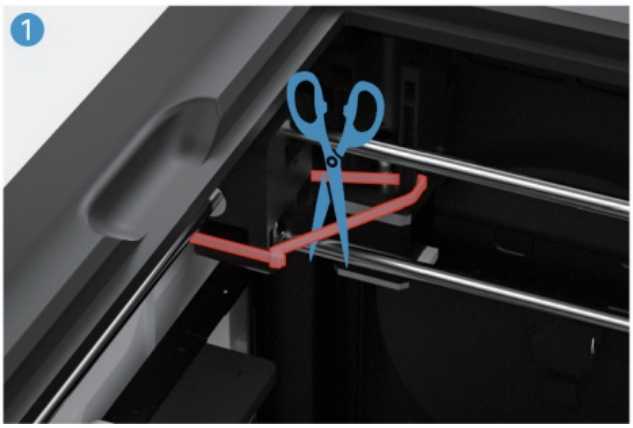
Note: The drying box in the accessory box is placed on the back of the foam, so the drying box can only be taken out after removing the foam.

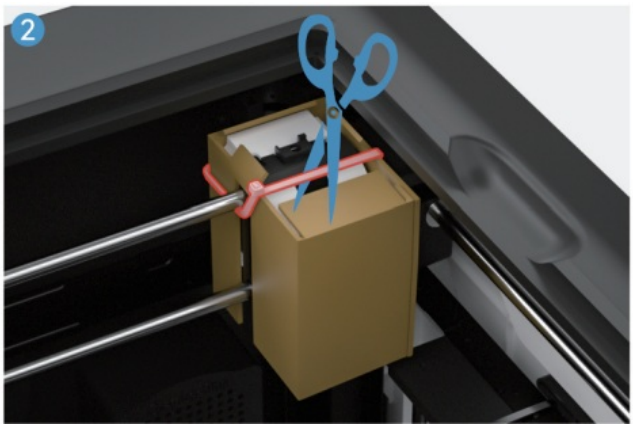
- Take out the power cord from accessory box 2 and plug it into the printer. Turn on the printer, and complete the unpacking and calibration process according to the instructions on the screen.
    - **Note:** Before turning on the power, please confirm whether the voltage setting of the power supply matches the voltage value of your region/country.

Language

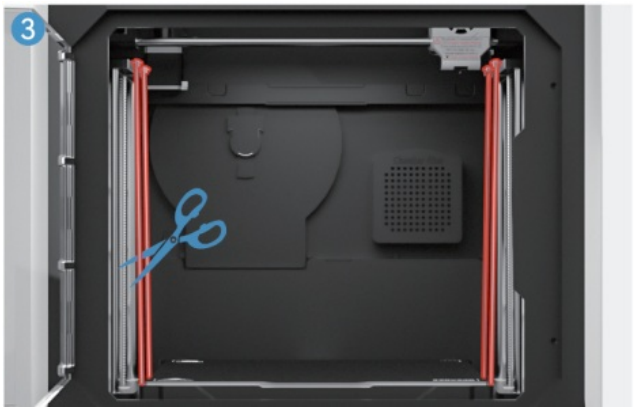
- Please select your preferred language and click on the next step.

Unboxing

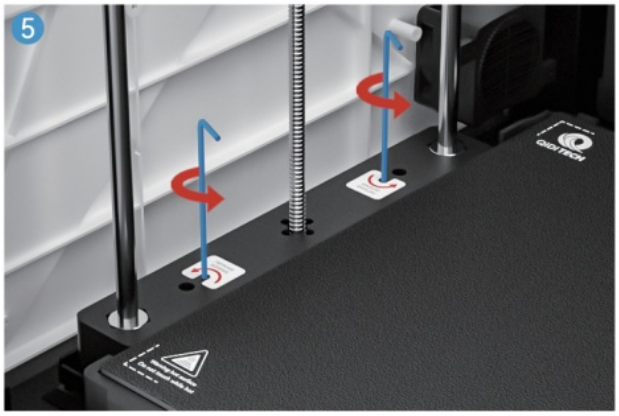


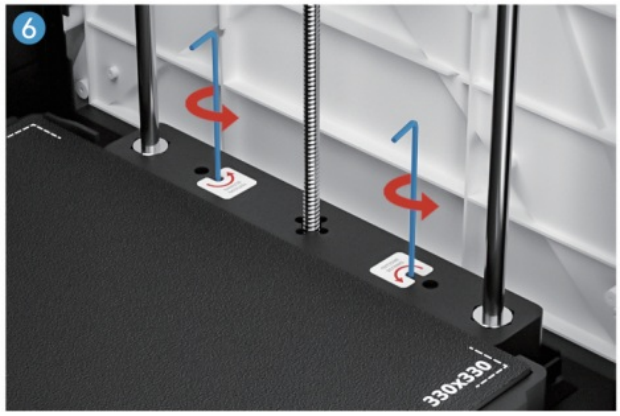


- Follow the on-screen instructions to remove the ties that fasten the extruder and X-axis, and discard the cardboard.

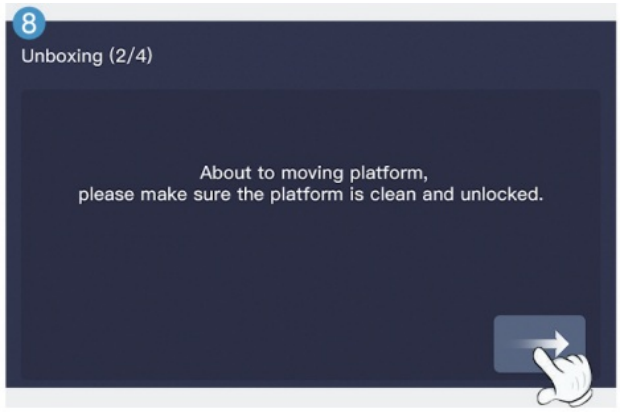


- Remove the four ties that secure the platform and proceed to the next step.





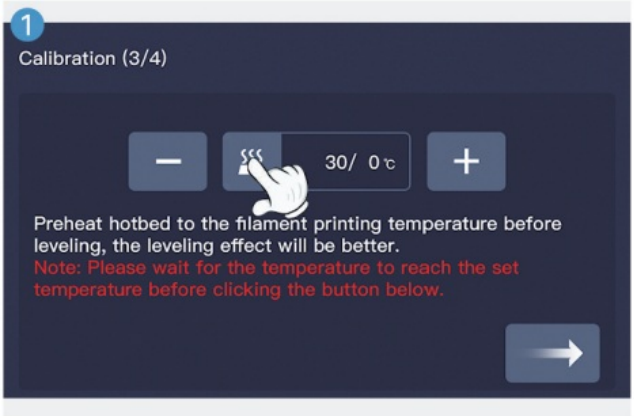
- Follow the on-screen instructions to remove the four screws securing the printing platform in place.



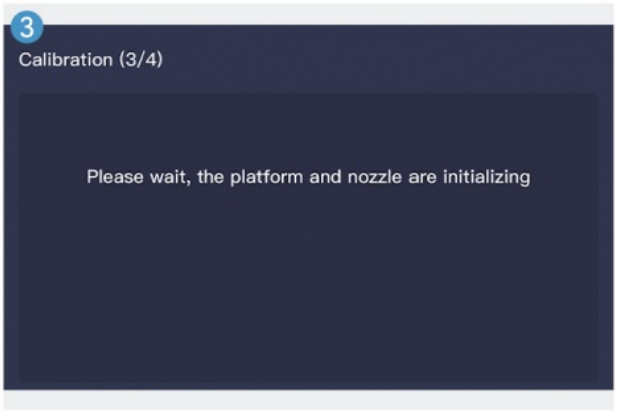
- Click “Next”. Make sure the print bed is unlocked and clear of any debris before proceeding .

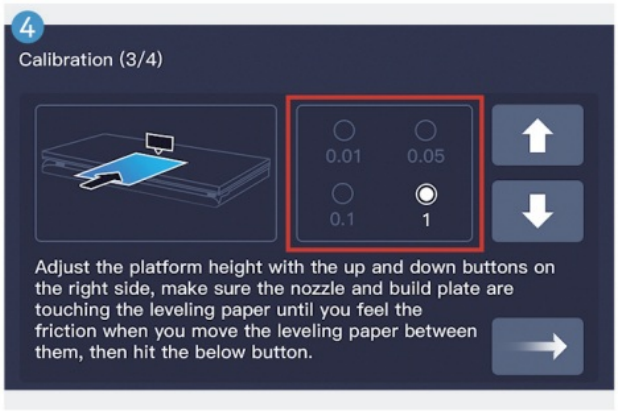
- Follow the instructions on the screen to remove the foam from under the printing platform and click next.

Calibration

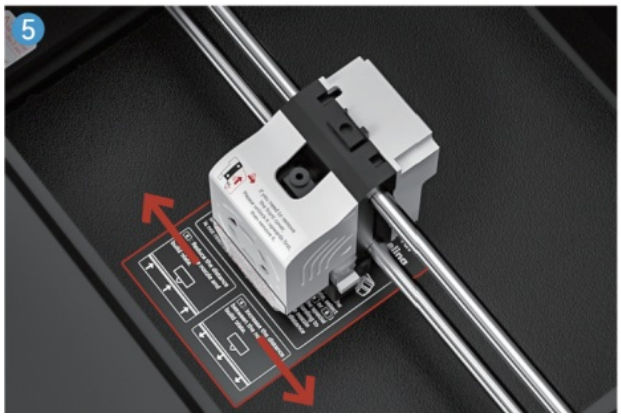


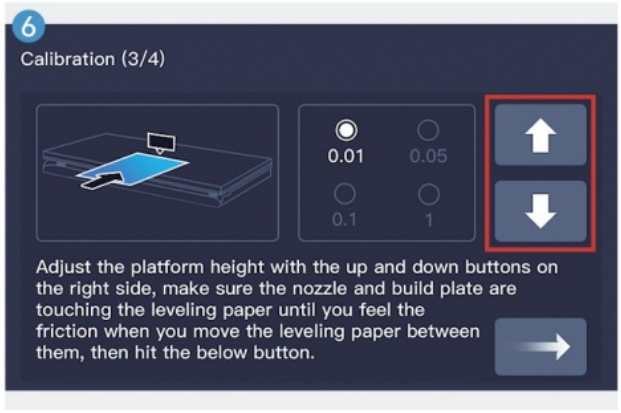
- Click the button to initiate the hot bed heating process and set the temperature according to your print filament. Allow the temperature to reach the value and proceed to the next step.



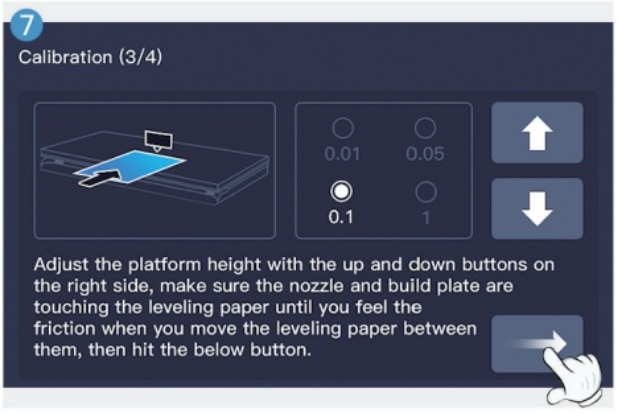


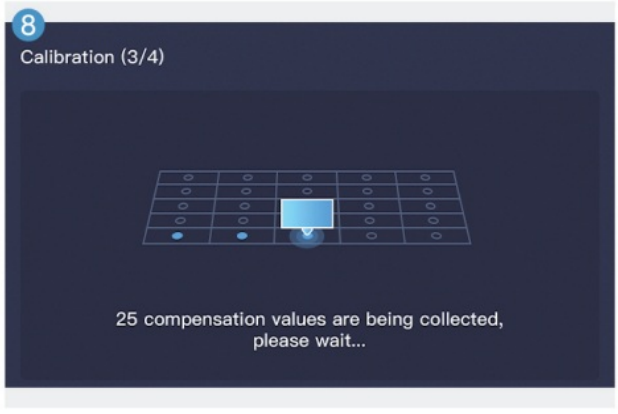
- After waiting for the platform and printhead positions to initialize, select the appropriate number to adjust the height of the platform.



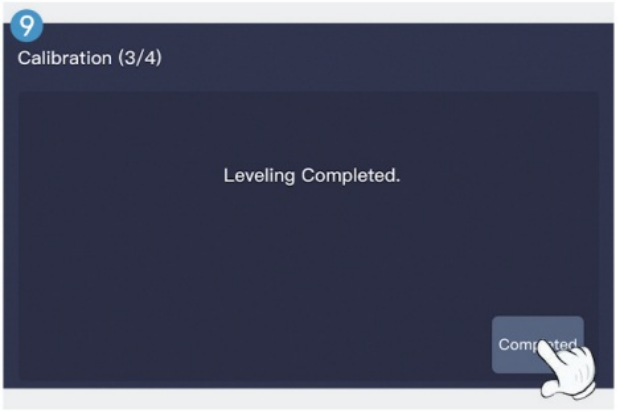


- Place the leveling card between the nozzle and the build plate. Gently slide the leveling card back and forth while using the up and down buttons to adjust the nozzle's height until you feel a slight resistance on the card. Please exercise caution around the heated build plate to avoid any potential burns. Remember to adjust the step size accordingly if the nozzle and build plate are in danger of colliding or if the desired distance has not yet been achieved after multiple adjustments.



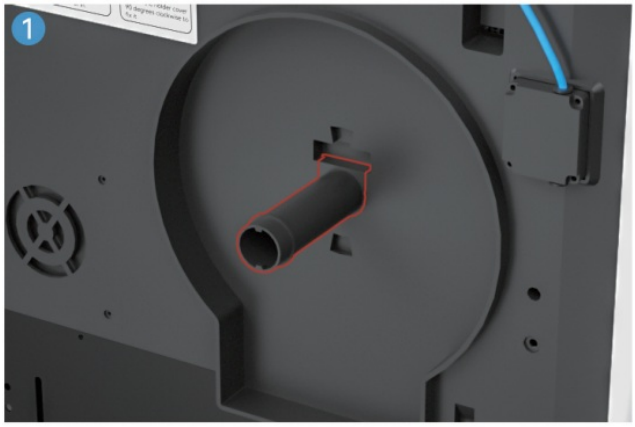


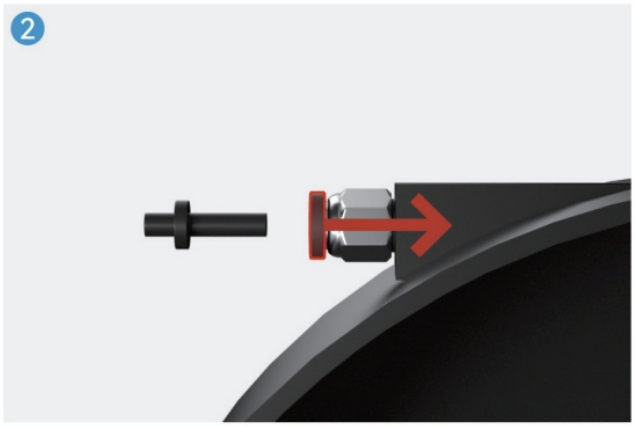
- After identifying the accurate distance, proceed to the next stage and enable the machine to automatically perceive the distances at each point.



- Press the button to finish the leveling process. Afterward, please wait for the machine to complete the resonance compensation.

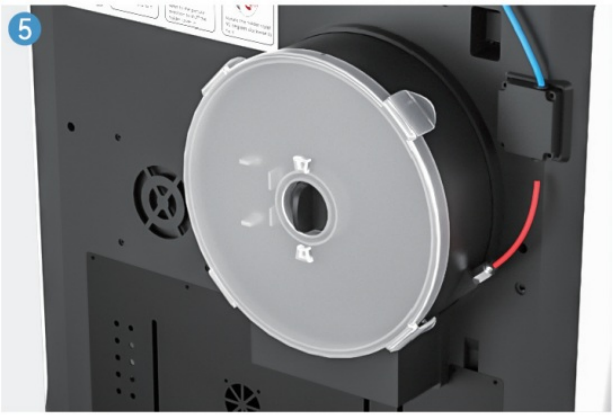
Load Filament

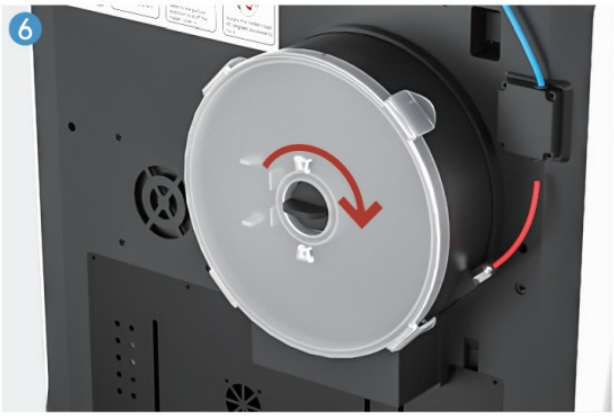




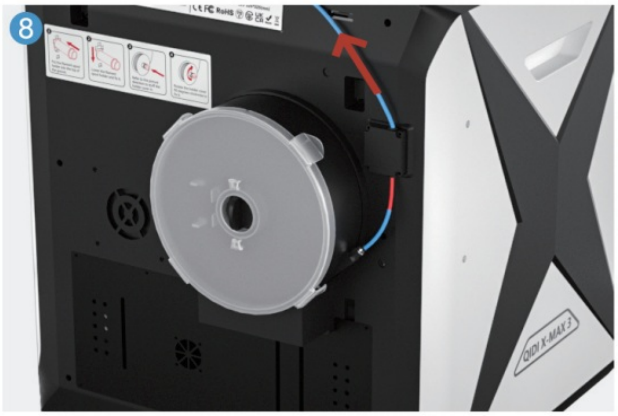
- Take out the filament support bar and support cover from the accessory box 2, and install the support bar on the machine according to the sticker on the back of the machine. Extract the dry box from the foam of accessory box 2, press the plastic interface on the connector first, and then pull out the plug.

- Place the desiccant in the drying box, then place the filament, and close the lid.
  Note: Before placing the filament, first thread one end of the filament through the connector on the drying box.

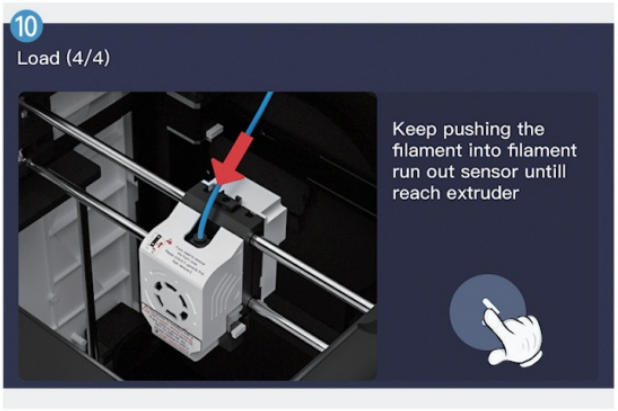




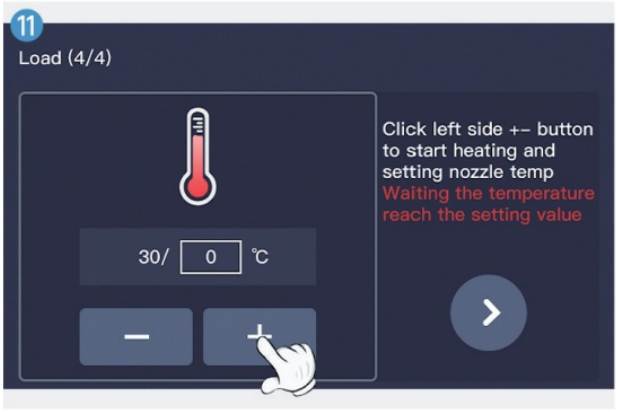
- Place the dry box on the filament support rod. Fit the lid and rotate it into place.



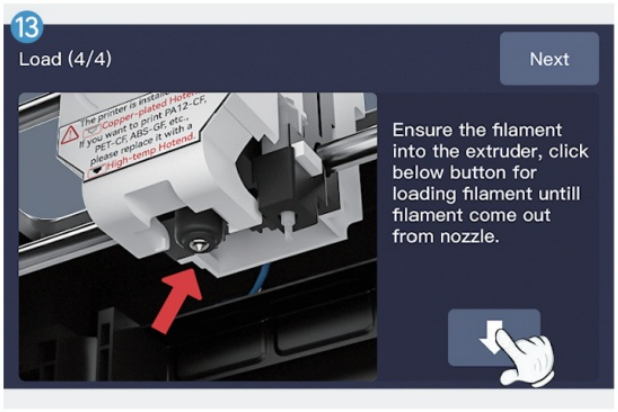
- Install the PTFE tube on the connector of the drying box. According to the screen prompts, thread the filament from the filament detection to the extruder.

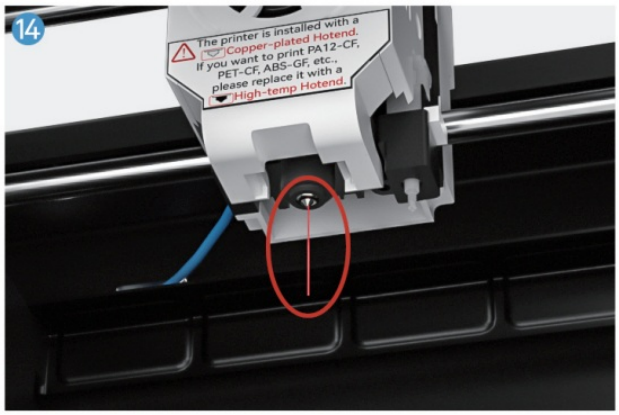


- Make sure that the filament are inserted into the extruder, and then install the PTFE tube on the drying box to the filament detection. Click Next.



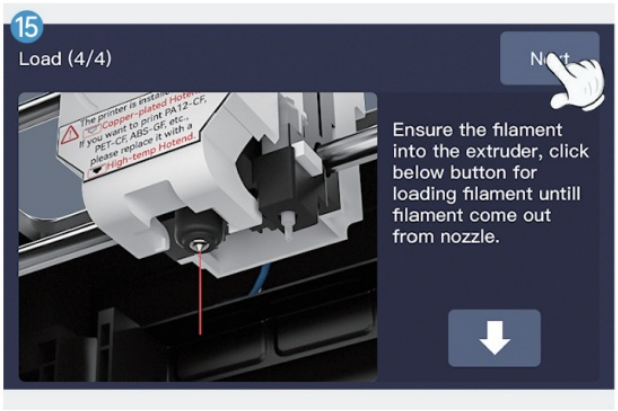
- Enter the print temperature for the filament and press the Heat button. Allow the temperature to reach the preset value and then proceed to the next step.





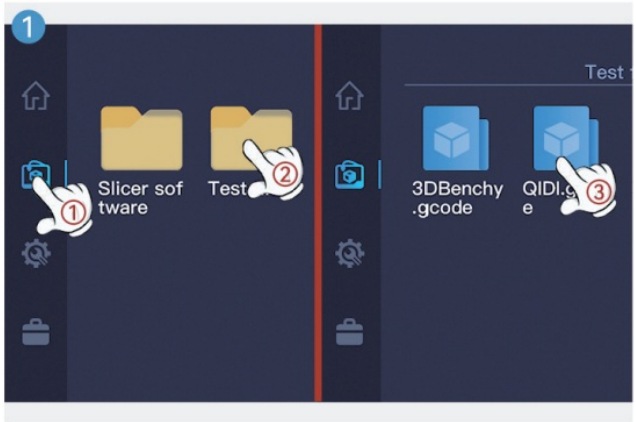
- Click the downwards button and allow the filament to emerge from the nozzle.

  Notice: If there is no filament flow, even after multiple attempts, check that the filament is properly entering the printhead.



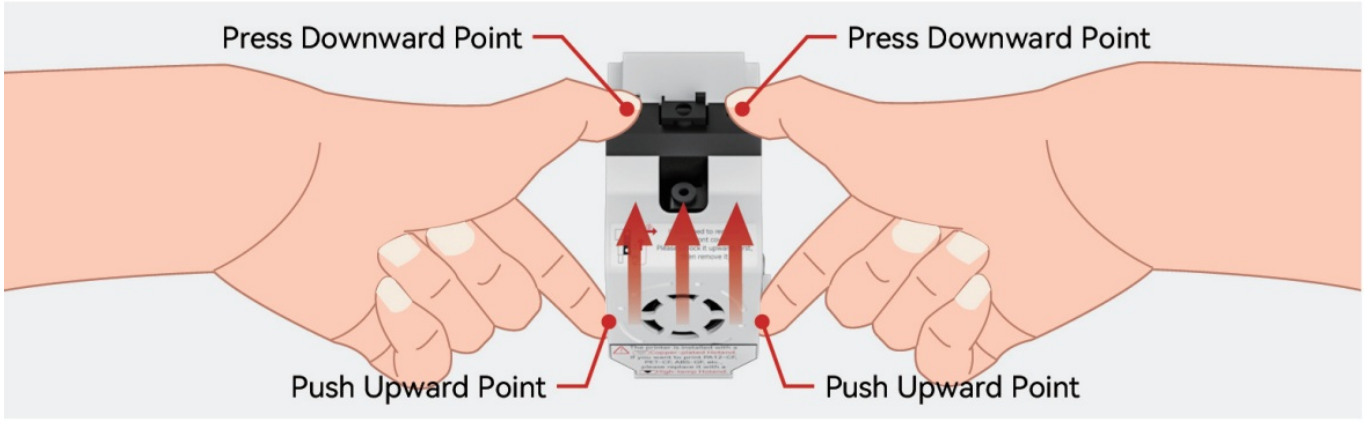
- Click “Next” and finish the start guide.

First Printing



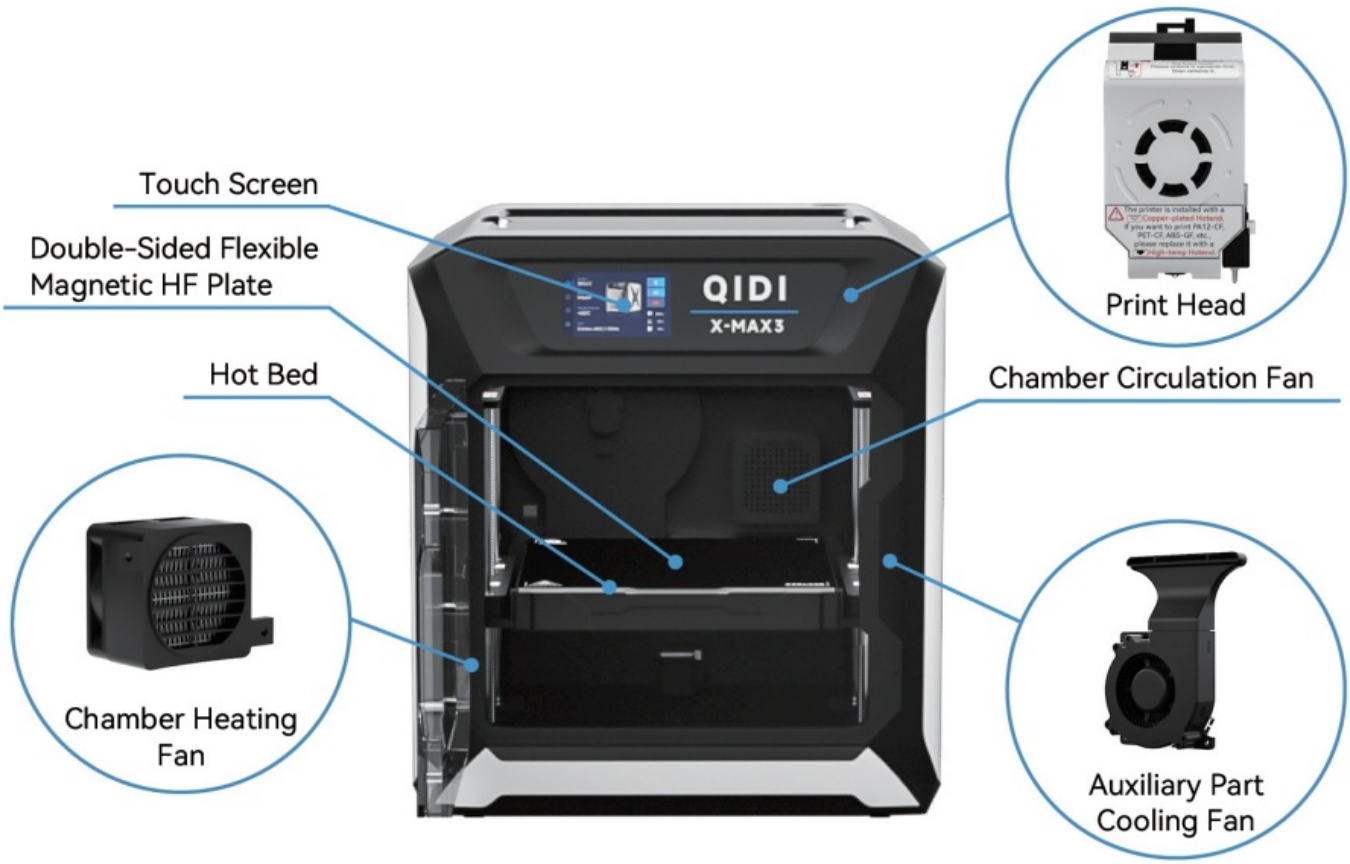
- Insert the USB flash drive and select the model inside the test folder for first printing. Note: The models from test folder is for the PLA Rapido filament that come with printer.

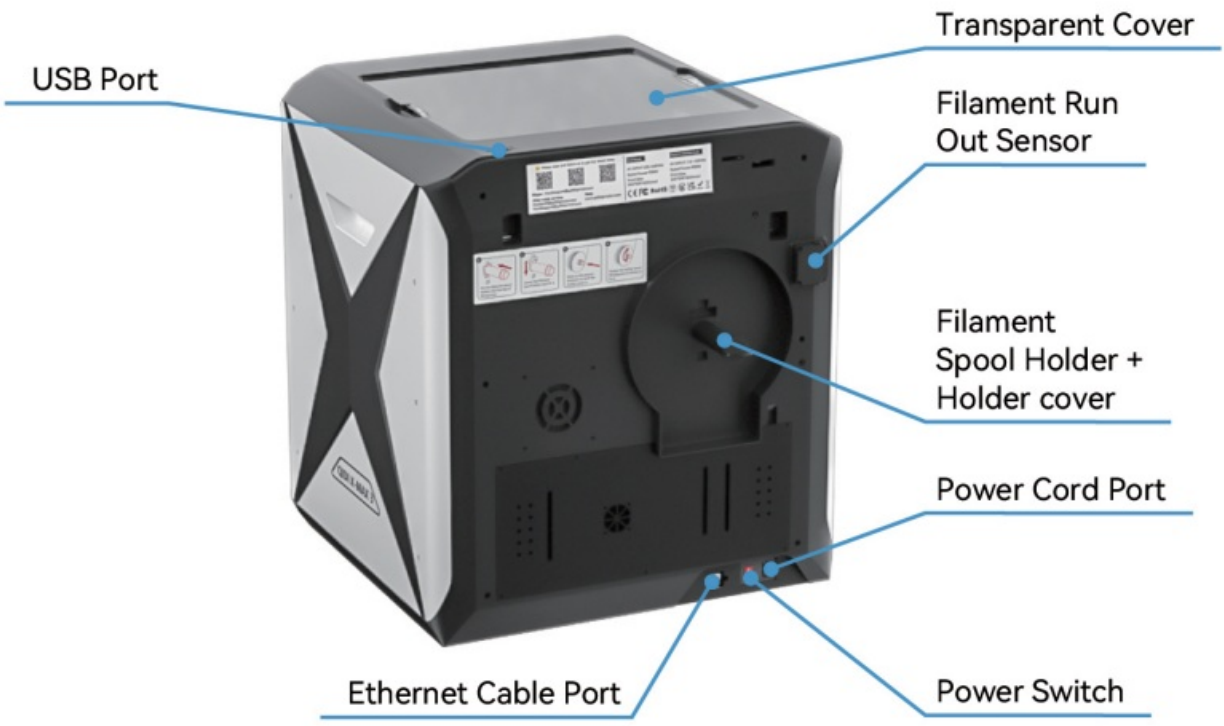
How To Remove The Print Head Front Cover



- Carefully push upward to unlock the front cover,then remove it.

Printer Introduction





Filament Guide For Beginners

QIDI Filament 1		ABS Rapido	PLA Rapido	PETG-Tough	UltraPA
Preparation	Necessity Of Drying	✗	✗	✗	✓
	How To Dry	/	/	/	100-120℃ 4-6h
	Nozzle Material	Copper-Plated /Brass Nozzle	Copper-Plated /Brass Nozzle	Copper-Plated /Brass Nozzle	Hardened Steel Nozzle
	Nozzle Size	All Size	All Size	All Size	0.4/0.6/0.8 mm
	Dry Box	✗	✗	✗	Need to maintain humidity ≤ 15%
	Print With Enclosure	✓	✗	✗	✓
Slicer Parameter	Print Speed	260 mm/s	260 mm/s	180 mm/s	80 mm/s
	Chamber Temperature	50 ℃	/	/	/
	Nozzle Tempertature	250-280 ℃	200-230 ℃	240-270 ℃	280-300 ℃
	Build Plate Temperature	100 ℃	60 ℃	80 ℃	80 ℃
	Cooling Fan	30%	100%	60%	20%
Post-processing	Annealing Needs	80-90 ℃ 6-8 hours	✗	✗	70-90℃ 6-8 hours

QIDI Filament 2		ABS-GF25	PA12-CF	PAHT-CF	PET-CF
Preparation	Necessity Of Drying	✓	✓	✓	✓
	How To Dry	100℃ 4-6h	100-120℃ 4-6h	100-120℃ 4-6h	100℃ 4-6h
	Nozzle Material	Hardened Steel Nozzle	Hardened Steel Nozzle	Hardened Steel Nozzle	Hardened Steel Nozzle
	Nozzle Size	0.4/0.6/0.8 mm	0.4/0.6/0.8 mm	0.4/0.6/0.8 mm	0.4/0.6/0.8 mm
	Dry Box	Need to maintain humidity ≤ 15%	Need to maintain humidity ≤ 15%	Need to maintain humidity ≤ 15%	Need to maintain humidity ≤ 15%
	Print With Enclosure	✓	✓	✓	✓
Slicer Parameter	Print Speed	200 mm/s	200 mm/s	200 mm/s	200 mm/s
	Chamber Temperature	45 ℃	/	/	/
	Nozzle Tempertature	250-270 ℃	280-300 ℃	280-320 ℃	280-320 ℃
	Build Plate Temperature	100 ℃	80 ℃	80 ℃	80 ℃
	Cooling Fan	20%	15%	15%	10%
Post-processing	Annealing Needs	80-90 ℃ 6-8 hours	80-100 ℃ 6-8 hours	90-130 ℃ 6-8 hours	90-130℃ 6-8 hours

Generic Filament		ABS	PETG	PLA	TPU 95A
Preparation	Necessity Of Drying	✗	✗	✗	✗
	How To Dry	/	/	/	/
	Nozzle Material	Copper-Plated /Brass Nozzle	Copper-Plated /Brass Nozzle	Copper-Plated /Brass Nozzle	Copper-Plated /Brass Nozzle
	Nozzle Size	All Size	All Size	All Size	0.4/0.6/0.8 mm
	Dry Box	✗	✗	✗	✗
	Print With Enclosure	✓	✗	✗	✗
Slicer Parameter	Print Speed	220 mm/s	120 mm/s	200 mm/s	60 mm/s
	Chamber Temperature	45 ℃	/	/	/
	Nozzle Tempertature	240-280 ℃	240-270 ℃	200-230 ℃	220-260 ℃
	Build Plate Temperature	100 ℃	80 ℃	60 ℃	60 ℃
	Cooling Fan	30%	60%	100%	100%
Post-processing	Annealing Needs	80-90 ℃ 6-8 hours	✗	✗	✗

Specifications

Machine Name		X-MAX 3
Body	Print Size (W*D*H)	325*325*325 mm
	Dimensions	553*553*601 mm
	XY Structure	CoreXY
	X Axis	Linear Shafts
	Z Axis	Double Z Axis
	Shell	Plastic
	Chassis	Steel
	Motor	42-48 High Temperature High Speed Motor
Print Head	Print Head Temperature	≤ 350℃
	Extruder Gear	Hardened Steel Gears
	Transmission Ratio	9.5: 1
	Hot End	Circular Ceramic Heating Hot End Only need 40S Heating From 20℃ to 220℃
	Temperature Measurement Unit	Thermocouple
	Nozzle	Copper Alloy Nozzle + Hardened Steel Nozzle
	Nozzle Diameter	0.4mm
	Filament Diameter	1.75mm

Hot Bed	Printing Platform	Integral Aluminum Plate
	Printing Plate	Double-Sided Flexible Magnetic HF Plate
	Hot Bed Temperature	≤ 120℃
Speed	Printing Speed	250-500mm/s
	Maximum Printing Acceleration	20000mm/s^2
Cool Down	Hot End Cooling Fan	Closed-Loop Control
	Model Cooling Fan	Closed-Loop Control
	Auxiliary Part Cooling Fan	Closed-Loop Control
	Motherboard Fan	Open Loop Control
	Chamber Circulation Fan	Closed Loop Control + Activated Carbon
	Chamber Temperature	65° C Independent Chamber Heating
Filament	Recommended Filament	PLA
	Compatible Filament	PLA, ABS, ASA, PETG, TPU, PET-CF, PA12-CF, PC, UltraPA, Nylon, etc.
	Seal Print	Dryer Box + Desiccant
Sensor	Broken Filament Detection	Support
	Automatic Leveling	Support
	Resonance Compensation	Support
Power Supply	Voltage	100-240 VAC, 50/60Hz
	Rated Power	900W
Electronics	Display Screen	5.0 Inch 800*480 Touch Screen
	Storage	8G EMMC and USB2.0 Flash Drive
	Motion Controller	Dual-Core Cortex-M4
	Application Processor	Quad-Core 1.5GHz Cortex-A53
	Extruder Independent Processor	Dual-Core Cortex-M0+
WIFI	Wifi Frequency Bands	2.4 GHz
	Transmitter Power (EIRP)	18 dBm (MAX)
	Protocol	IEEE 802.11b/g/n
Software	Slicer	QIDI Slicer and other third-party software, such as Ultimaker Cura, Simplify3D, PrusaSlicer, etc.
	Operating System	Windows、MacOS、Linux

Scan QR to receive our latest product updates and latest news.

Official Website: www.qidi3d.com
If you need support, please feel free to contact us:

- E-mail address: Max3AMS@qd3Dprinter.com
- Max3support@qd3Dprinter.com
- Skype ID: Max3support@qd3Dprinter.com

Facebook Reddit YouTube Twitter

If you have any suggestions or complaints, please contact this E-mail address: Audrey@qd3dprinter.com

- TEL: 0086-577-66881077

Documents / Resources

	QIDI Xmax3 Large 3D Printer [pdf] User Guide Xmax3, Xmax3 Large 3D Printer, Xmax3, Large 3D Printer, 3D Printer, Printer

References

- GitHub - Arksine/moonraker: Web API Server for Klipper
- GitHub - billkenney/update_max3_plus3
- GitHub - whb0514/QIDI_Max3_Bookworm
- GitHub - Donkie/Spoolman: Keep track of your inventory of 3D-printer filament spools.
- GitHub - fluidd-core/fluidd: Fluidd, the klipper UI.
- GitHub - Frix-x/klippain-shaketune: Klipper streamlined input shaper workflow and calibration tools
- GitHub - Klipper3d/klipper: Klipper is a 3d-printer firmware
- GitHub - kyleisah/Klipper-Adaptive-Meshing-Purging: A unique leveling solution for Klipper-enabled 3D printers!
- GitHub - mainsail-crew/crowsnest: Webcam Service for multiple Cams
- GitHub - mainsail-crew/moonraker-timelapse: Timelapse Plugin for moonraker
- User Manual