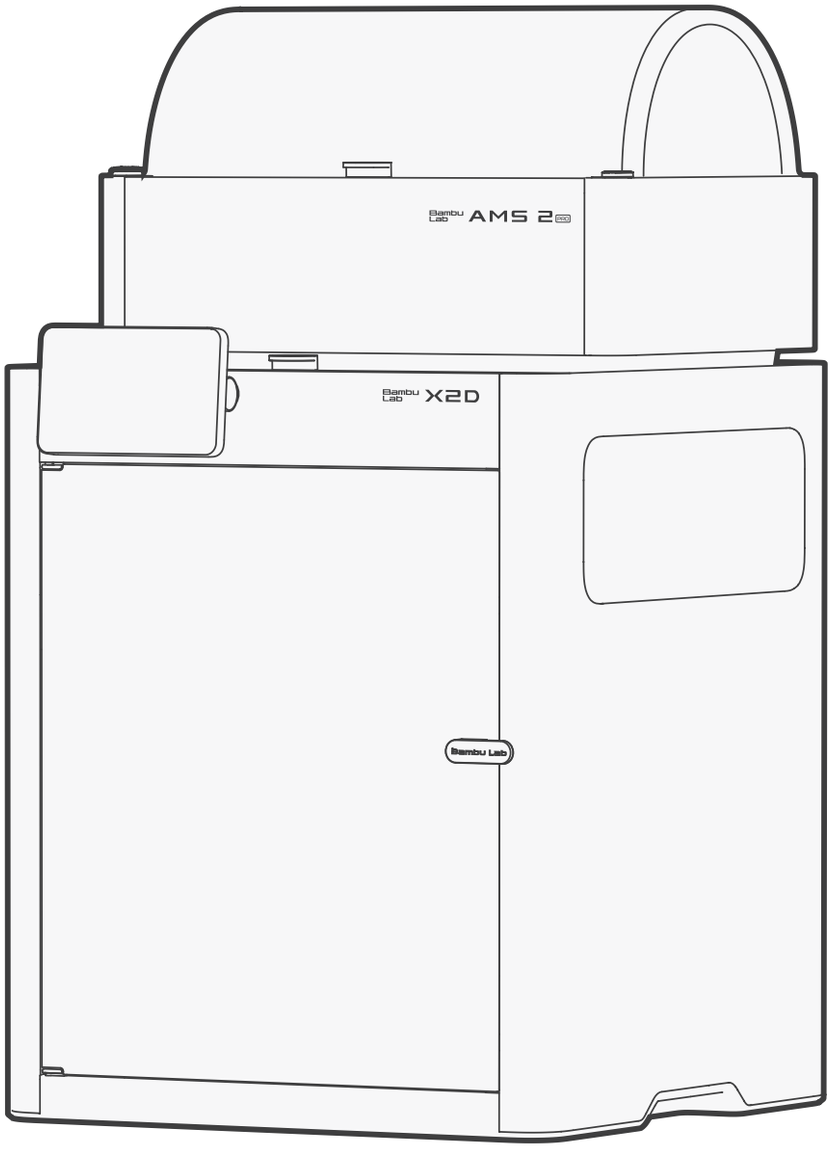
Bambu Lab X2D AMS Combo

Quick Start Guide

Please review the entire guide before using the product.

Safety notice: Do not connect to power until the assembly is complete.



PF004-P | SA007

Video Guide
Watch a step-by-step video and get started quickly.
bambulab.com/x2d-combo-quick-start

Download Bambu Handy and Bambu Studio
Remotely control your printer and monitor your prints in real time on both your phone and computer.
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1. Read Before Use

To ensure safety and optimal performance, please follow these guidelines:

- Verify that the printer's operating voltage matches the specified requirements to avoid damage or safety hazards. This can be checked on the label next to the power socket. Refer to the "Printer Specifications" section for details.
- Regular maintenance is essential to keep the printer's complex mechanisms running smoothly. For guidance, see the "Regular Maintenance" section.
- For best results, we recommend using Bambu filaments, which have been rigorously tested for compatibility, safety, and stability with the product.
- To prevent nozzle clogging and achieve optimal results, please use the main hotend to print TPU.
- When printing with the auxiliary hotend, only use the supported filament types. Using unsupported filament may lead to nozzle clogs and other malfunctions. Refer to the "Printer Specifications" section for details.
- To prevent the filament from getting stuck, do not use flexible filaments such as TPU with a hardness level of 95A or lower, or damp PVA and BVOH, in the AMS 2 Pro.
- The AMS 2 Pro supports a spool width between 50 mm and 68 mm and a diameter between 197 mm and 202 mm. We recommend using plastic spools.
- You can use the drying function of the AMS 2 Pro using only a 6-pin cable to connect it to the printer. If you need to dry filaments in multiple AMS 2 Pro units, you need to purchase official Bambu Lab power adapters to power the drying function of the other AMS 2 Pro units.
- During filament drying, the AMS 2 Pro removes moisture through external air circulation via

the air inlets. Please ensure the air intake and vent are not blocked to ensure optimum drying efficiency.

2. Printer Component Introduction

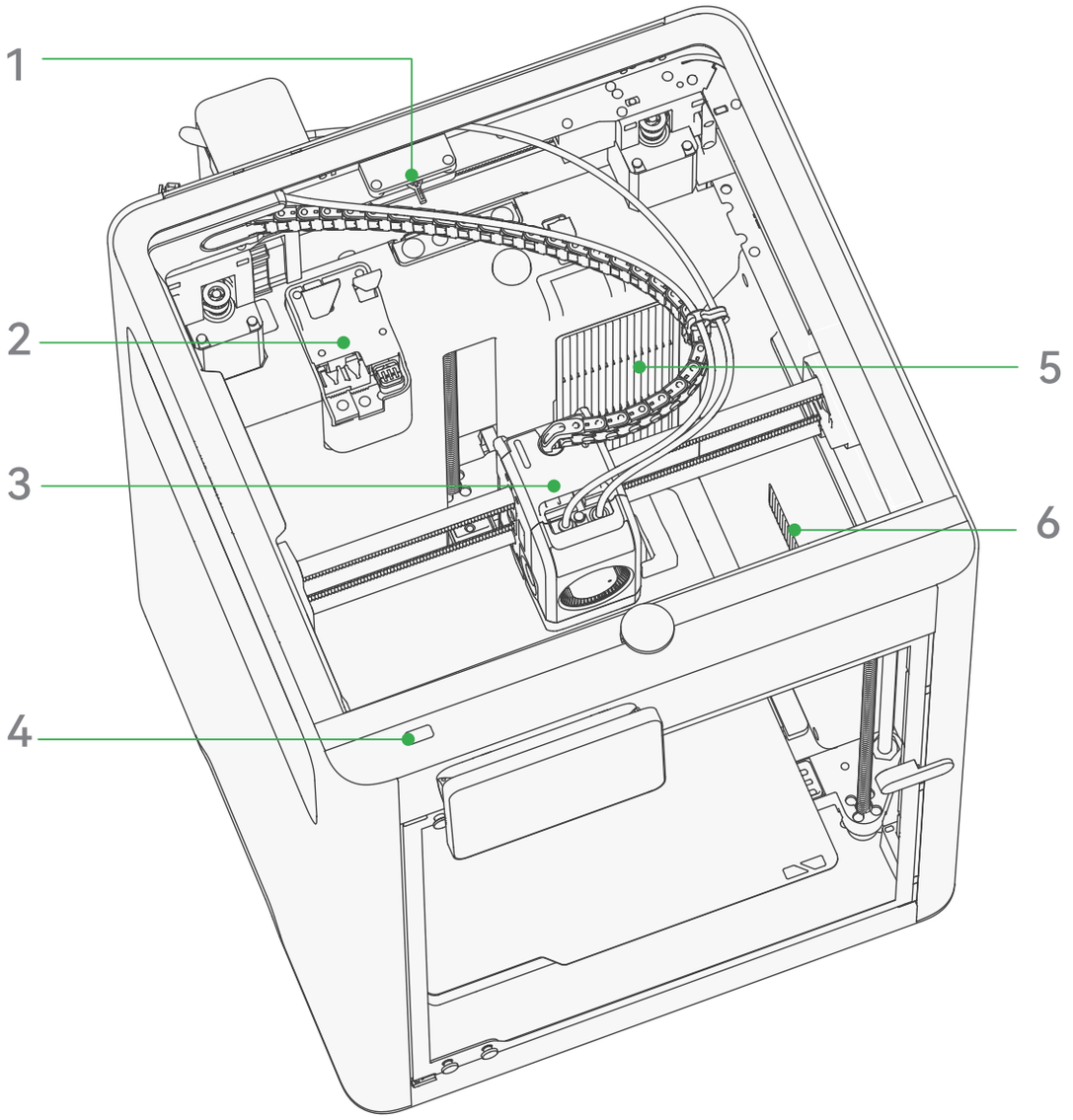


Figure 1

1) Filament Cutter Stopper
2) Purge Wiper
3) Toolhead
4) USB Port
5) Air Filter
6) Adaptive Airflow Switching Unit

2. Printer Component Introduction

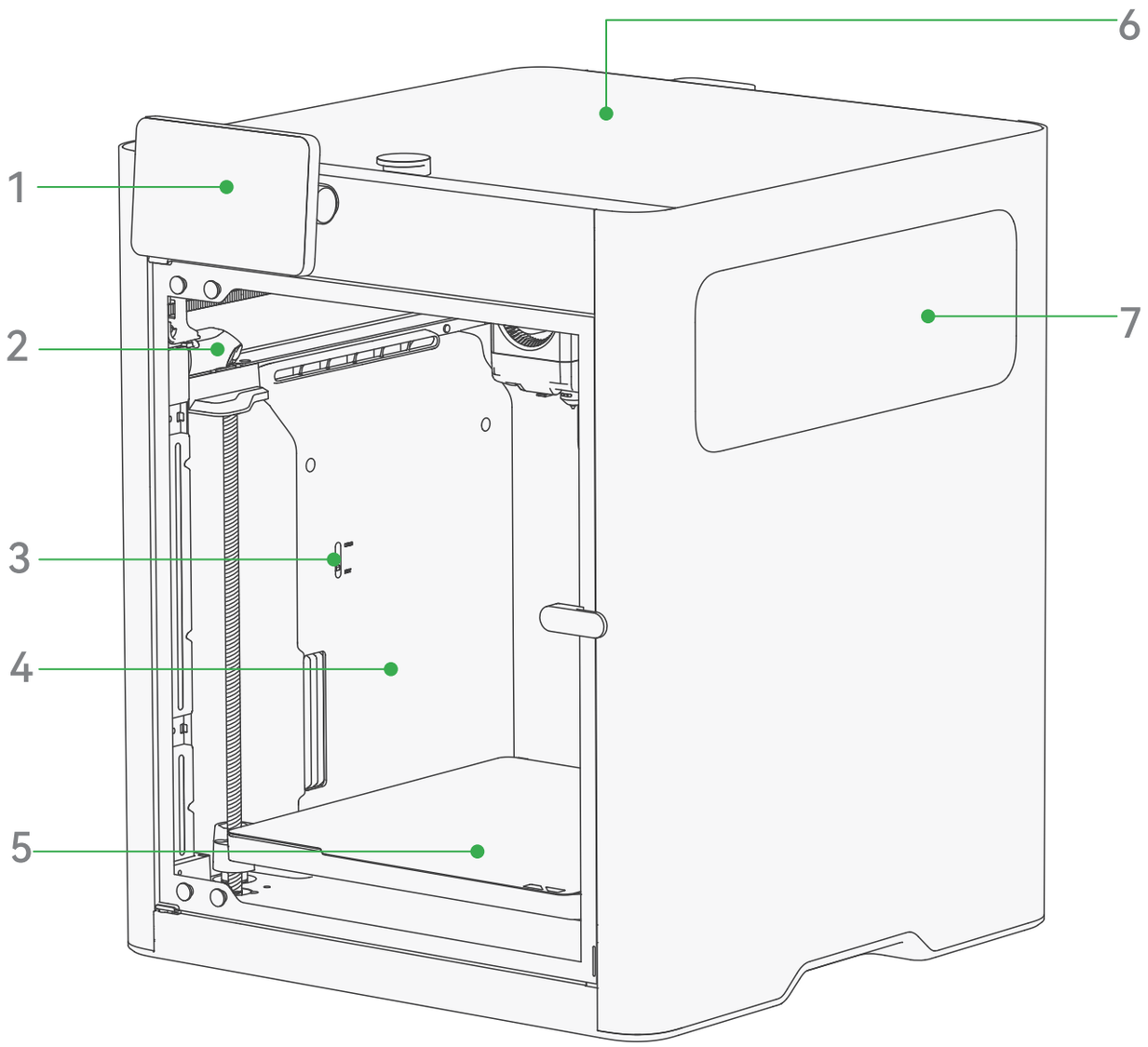


Figure 2

1) Touchscreen
2) Live View Camera
3) Circulation Mode Indicator*
4) Chamber Heat Circulation Fan
5) Heatbed
6) Top Glass Cover
7) Side Window

* Automatically switches, no manual adjustment needed.

2. Printer Component Introduction

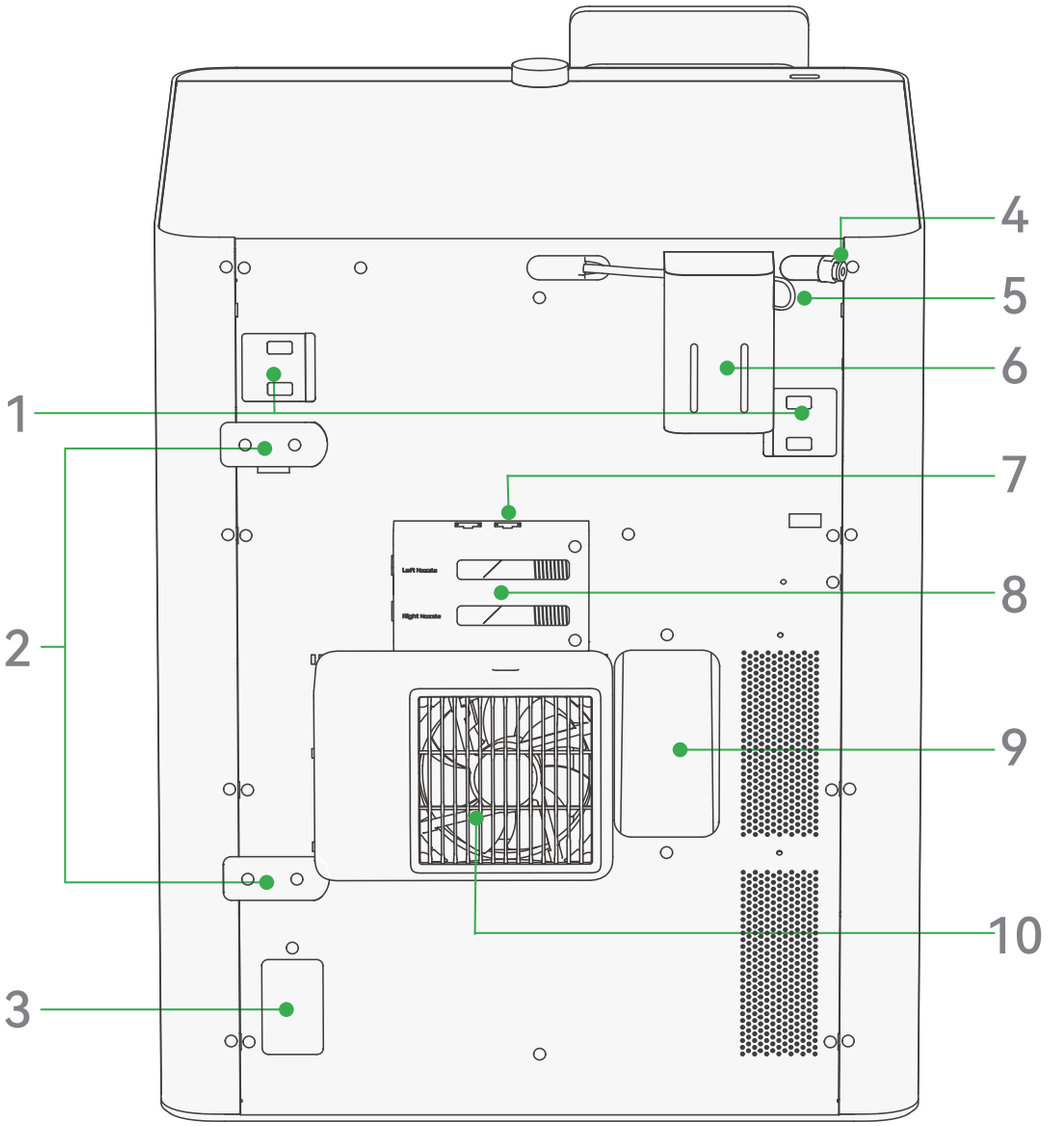
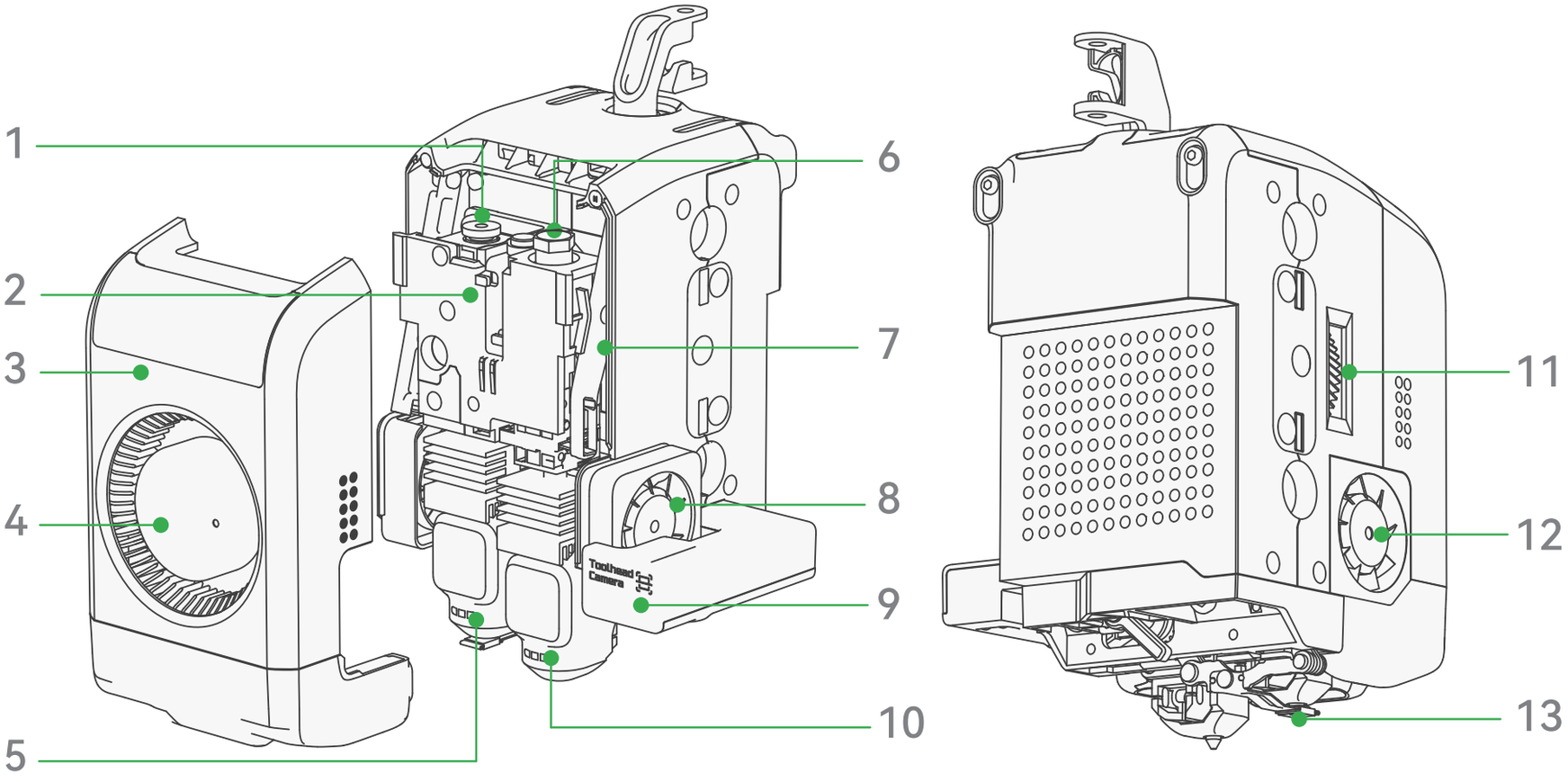


Figure 3

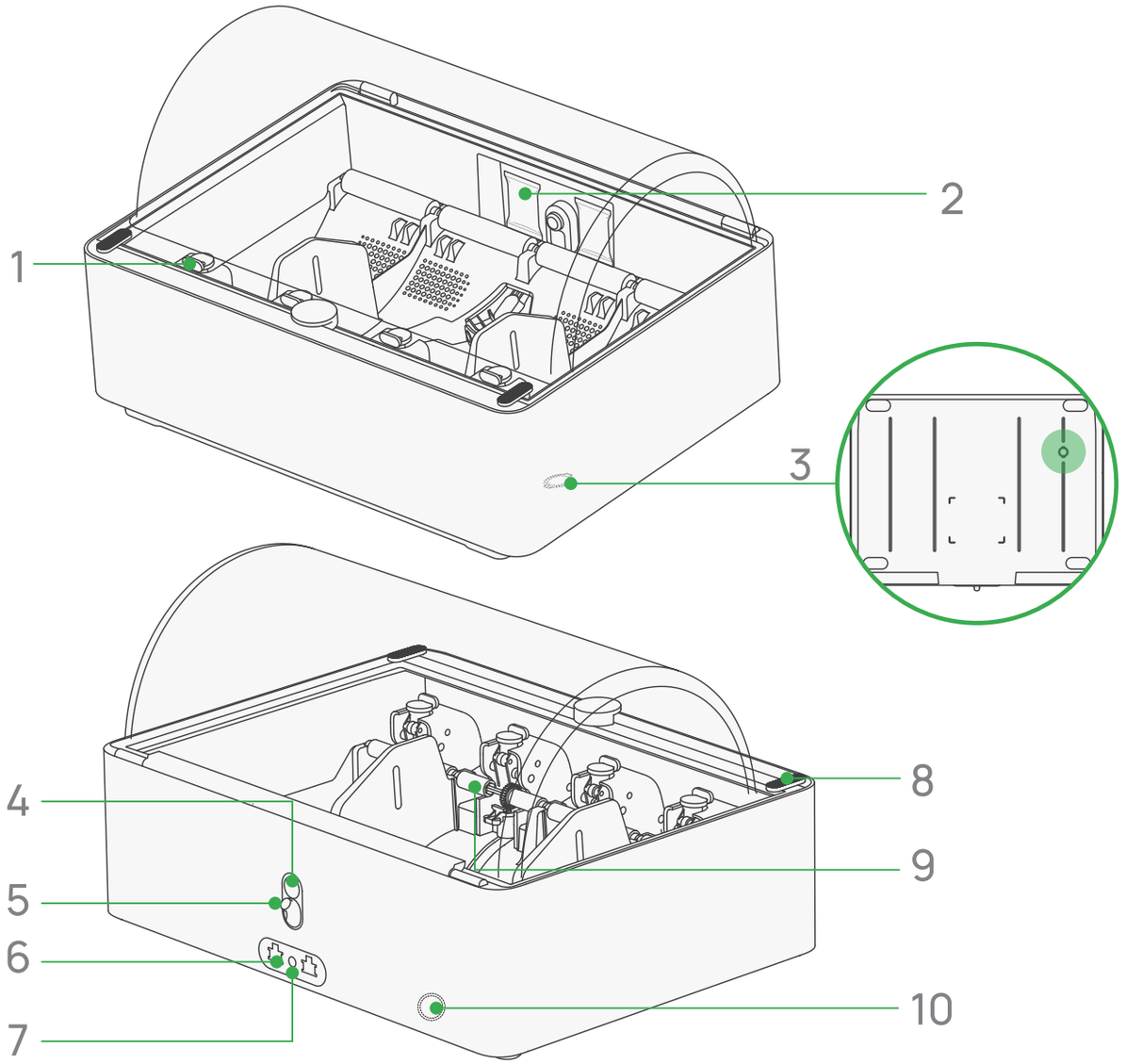
1) Belt Tensioners
2) Spool Holder Base
3) Power Socket
4) PTFE Tube Bracket - Main Extruder
5) PTFE Tube Bracket- Auxiliary Extruder
6) Auxiliary Extruder
7) Bambu Bus Port 6-pin
8) Filament Buffer
9) Purge Chute
10) External Exhaust Fan

3. Toolhead Component Introduction



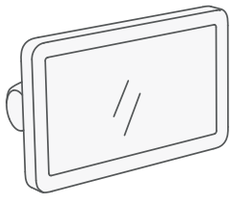
1) Toolhead Filament Inlet - Main Hotend
2) Main Extruder
3) Toolhead Front Cover
4) Part Cooling Fan
5) Main Hotend
6) Toolhead Filament Inlet - Auxiliary Hotend
7) Filament Cutter Lever
8) Auxiliary Hotend Cooling Fan
9) Toolhead Camera
10) Auxiliary Hotend
11) Main Extruder Gear
12) Main Hotend Cooling Fan
13) Flow Blocker

4. AMS 2 Pro Component Introduction

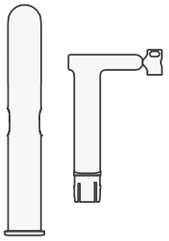


1) Filament Inlet
2) Desiccant
3) Air Intake
4) PTFE Tube Release Button
5) Filament Outlet
6) Bambu Bus Port 6-pin
7) Power Connector
8) Locking Tab
9) Active Support Shaft
10) Air Vent

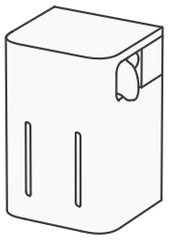
5. Included Accessories



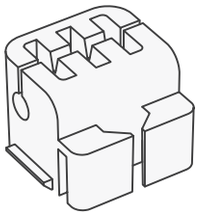
1) Touchscreen



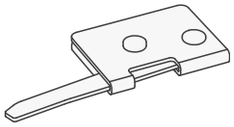
2) Spool Holder



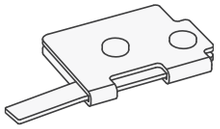
3) Auxiliary Extruder



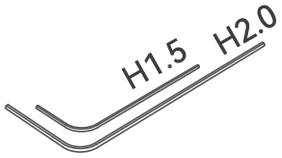
4) Nozzle Wiping Pad



5) Filament Cutter - Left

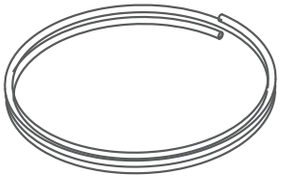


6) Filament Cutter - Right

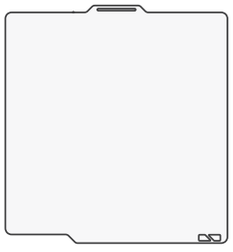


7) Allen Key H1.5
Allen Key H2.0

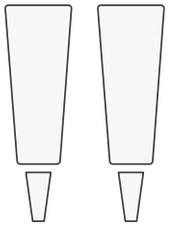
8) Unclogging Pin



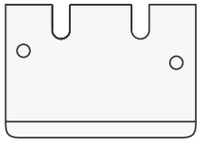
9) PTFE Tube



10) Build Plate
(Pre-installed
on heatbed)

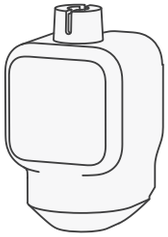


11) Lubricant Grease
& Lubricant Oil

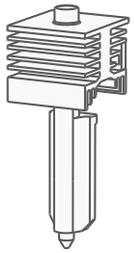


12) Scraper Blade

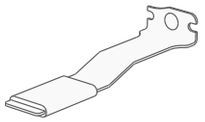
5. Included Accessories



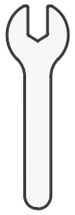
13) Hotend Silicone Sock



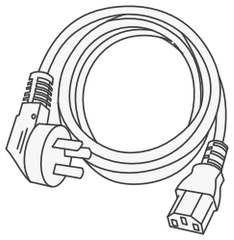
14) Spare Hotend



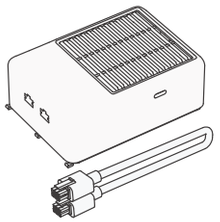
15) Flow Blocker



16) Open-end Wrench

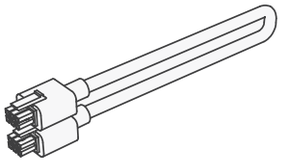


17) Power Cord

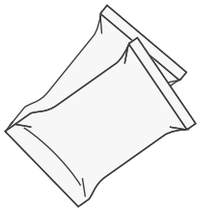


18) External Exhaust Fan Bundle

19) PTFE Tube Locking Nut



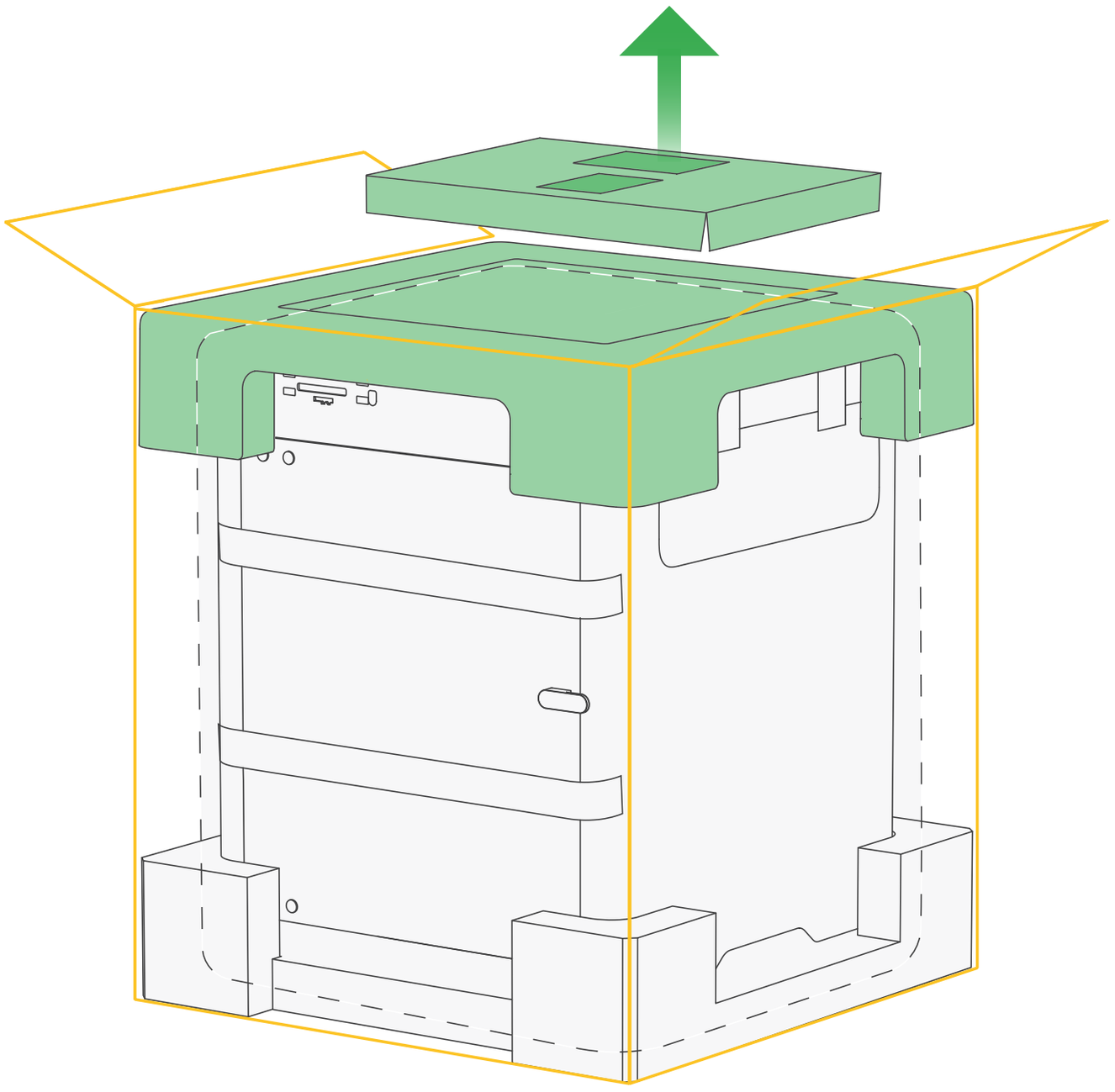
20) Bambu Bus Cable 6-pin



21) Desiccant

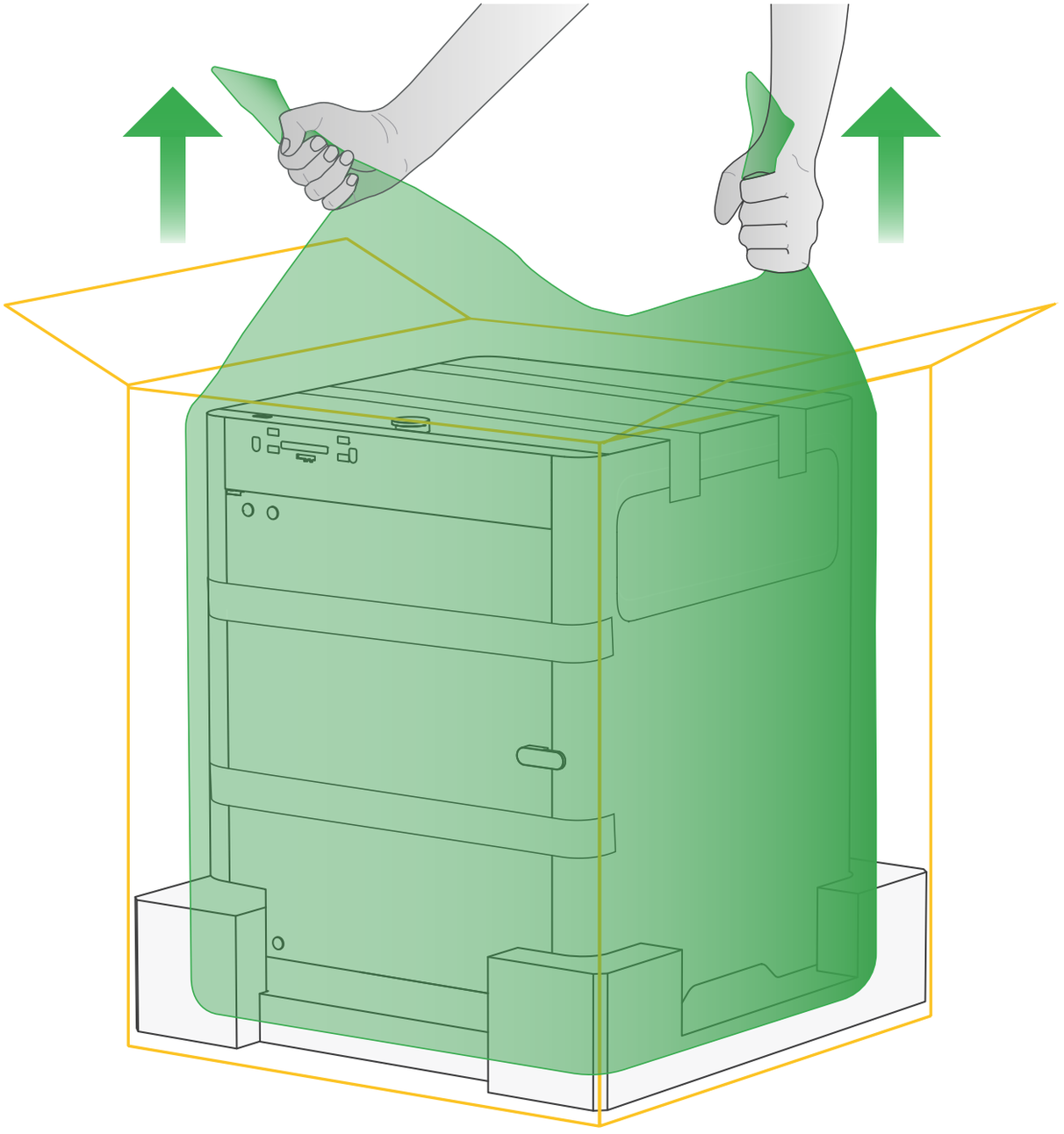
6. Remove the Package

Keep packaging materials and screws for shipping.



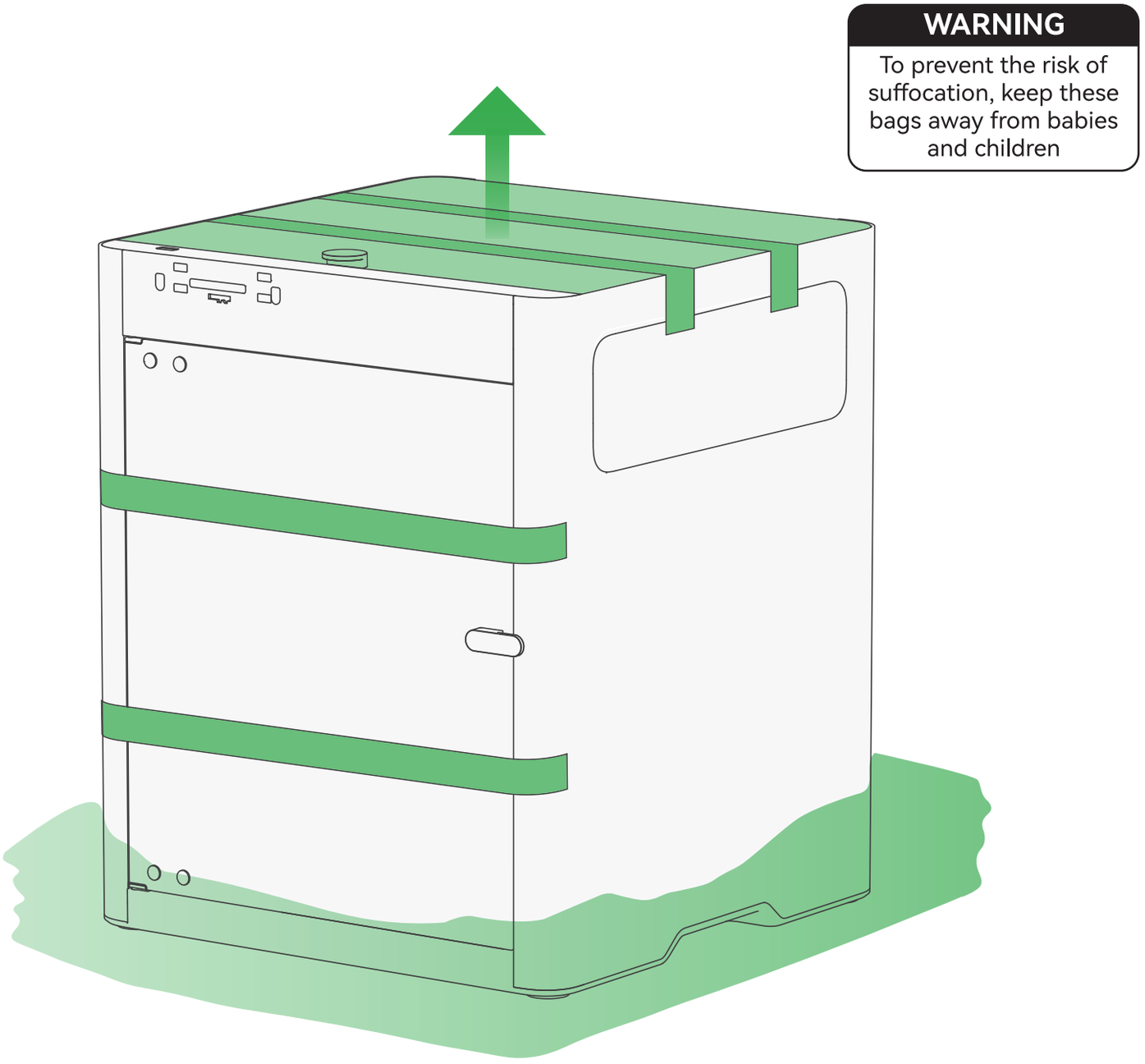
1) Open the packaging box, take out the toolbox and quick start guide, and remove the cardboard and top foam.

6. Remove the Package



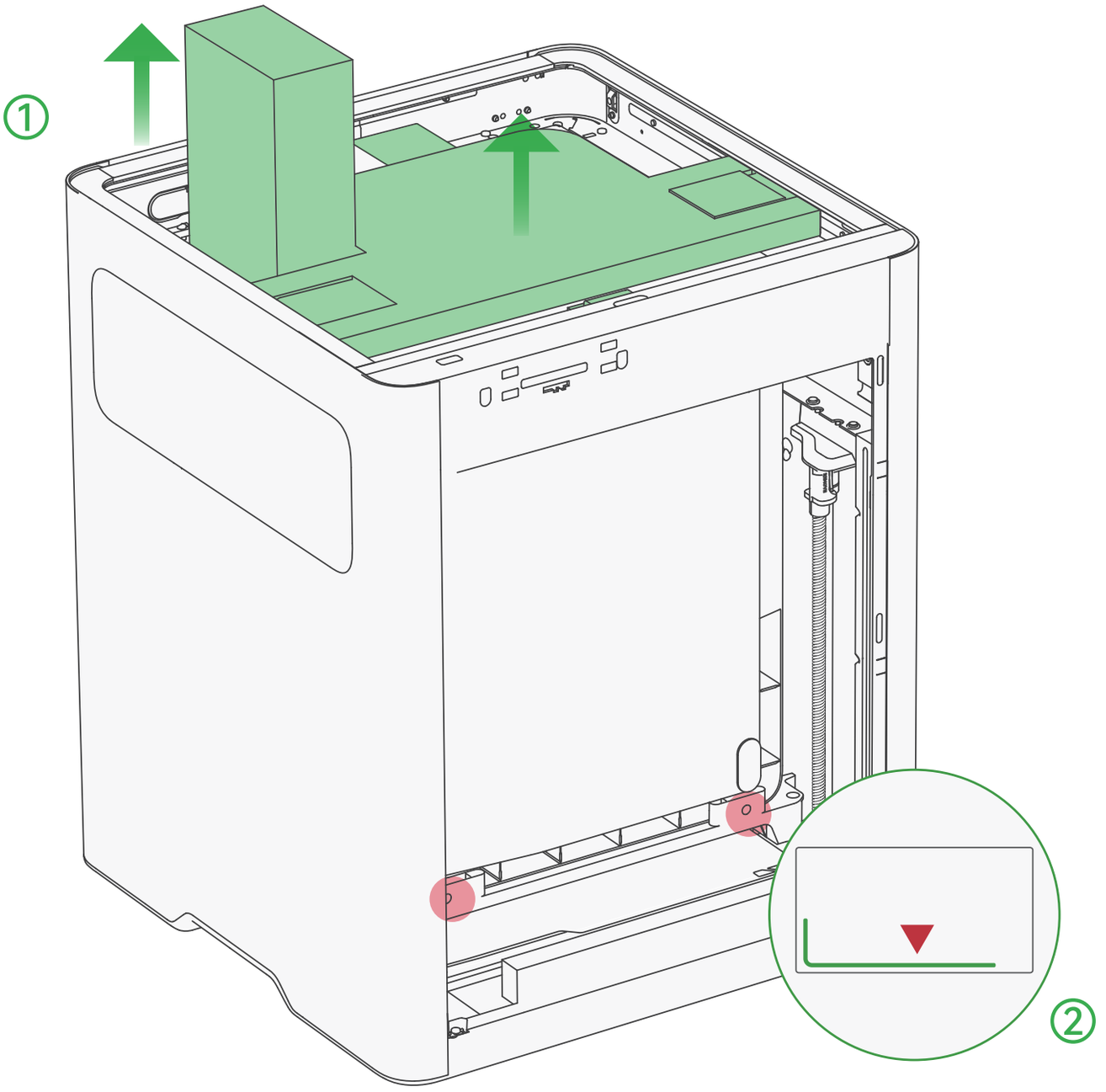
2) Grip the top corners of the moisture-proof bag and lift the printer, placing it on a stable surface.

6. Remove the Package



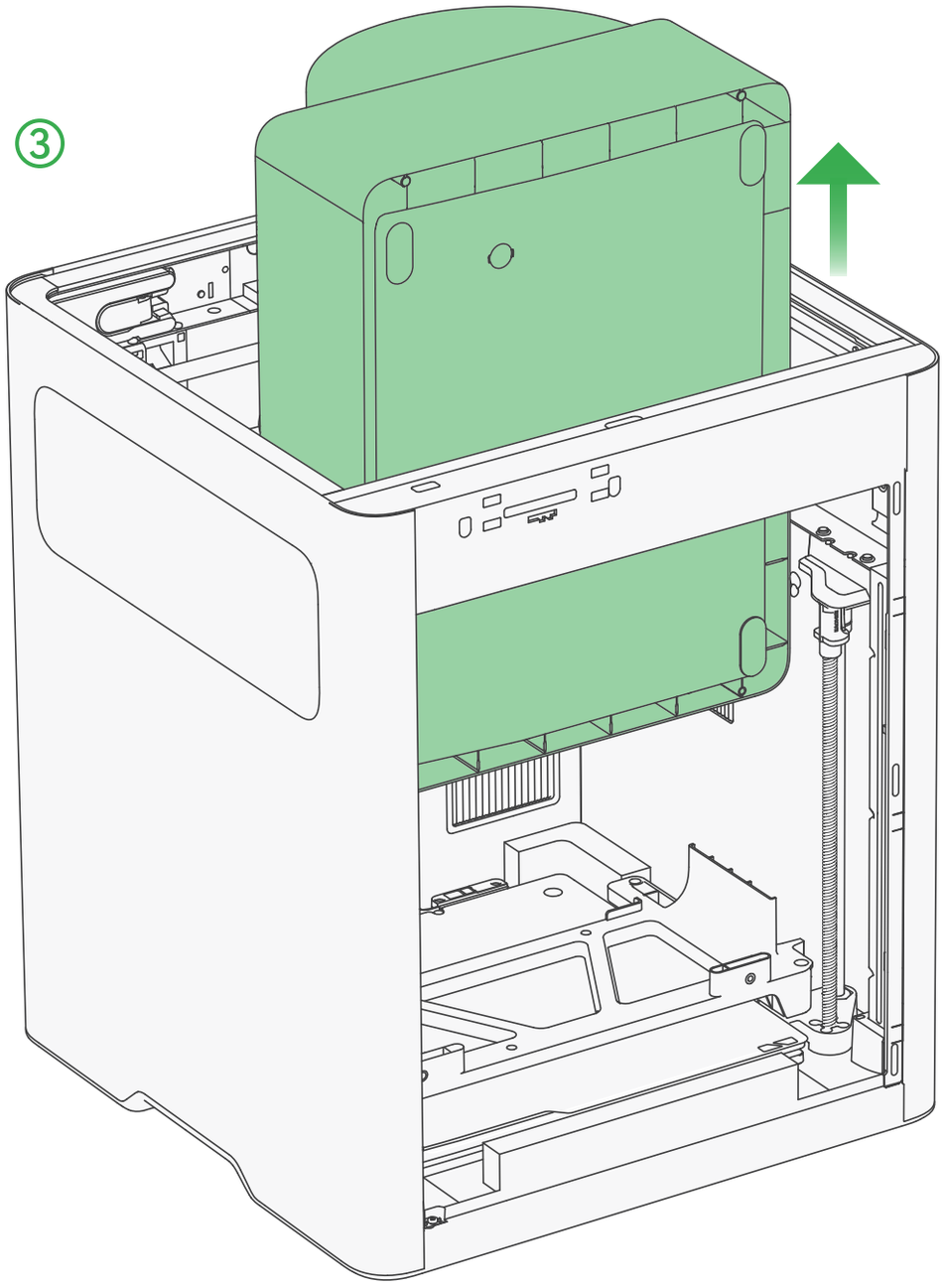
3) Remove the moisture-proof bag and take out the PTFE tubes. Then remove all adhesive tapes from the printer, carefully lift off the top glass cover, and set it aside.

7. Unlock the AMS 2 Pro



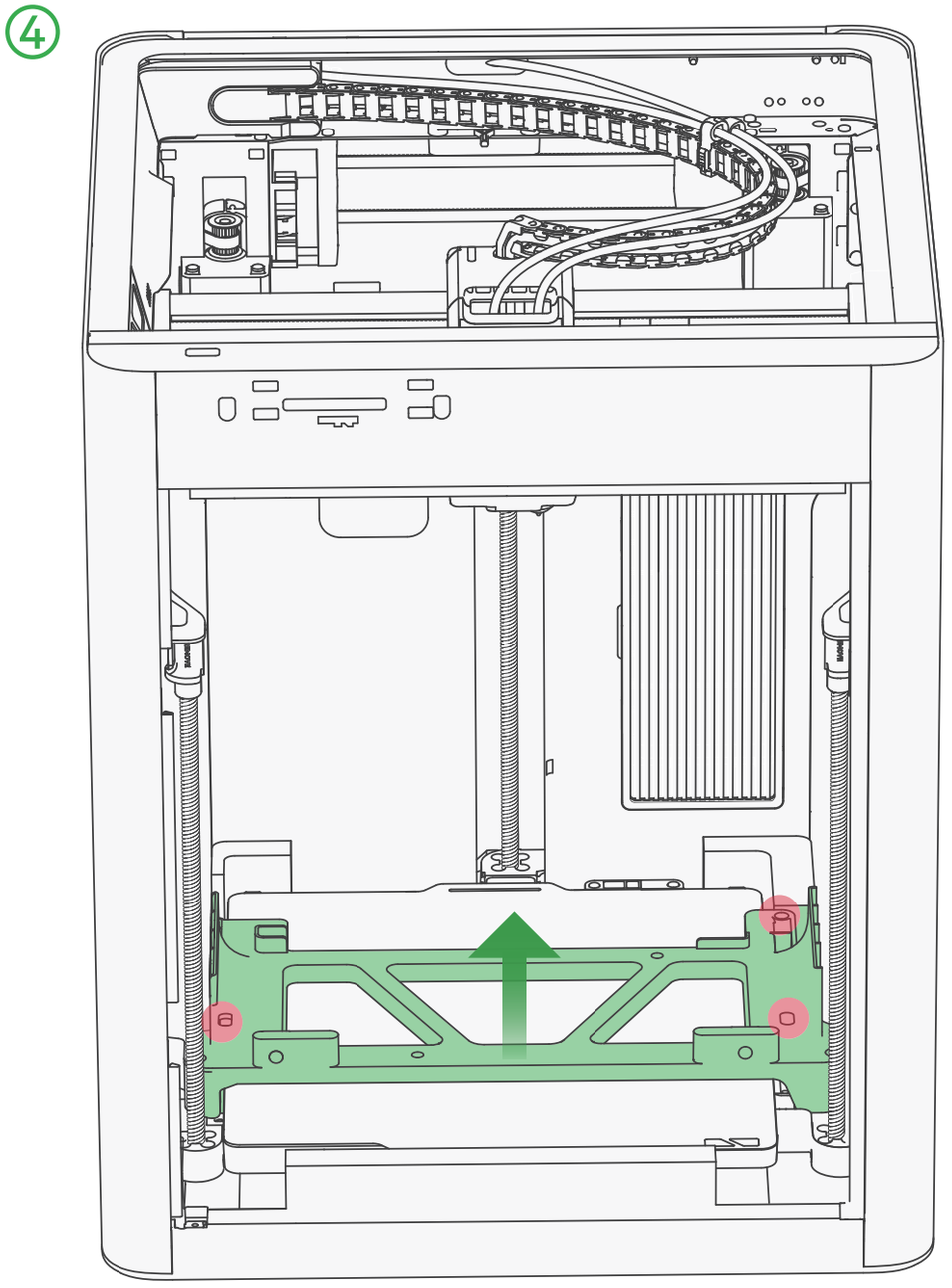
1) Take out the accessory box and remove all the top foam.
2) Open the front door and remove the protective bag. Then use the longer H2.0 allen key from the toolbox to remove the 2 screws marked in red. (Leave the foam at the bottom of the chamber in place for now. Remove it after the initial calibration.)

7. Unlock the AMS 2 Pro



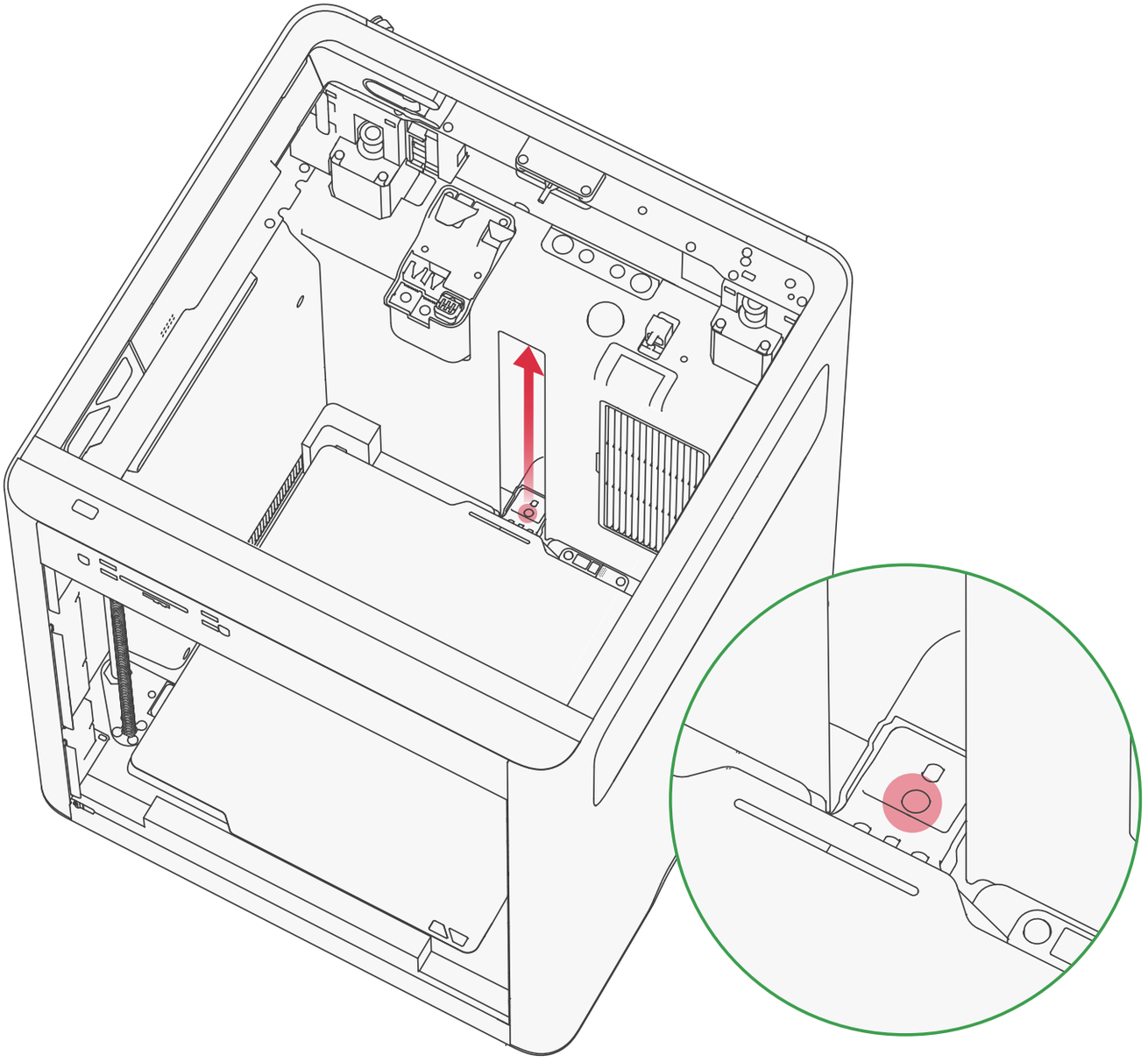
3) Lift out the AMS 2 Pro, and remove the foam protection around the AMS sides.

7. Unlock the AMS 2 Pro



4) Use the H2.0 allen key to remove the 3 screws marked in red, then take out the transport fixture.

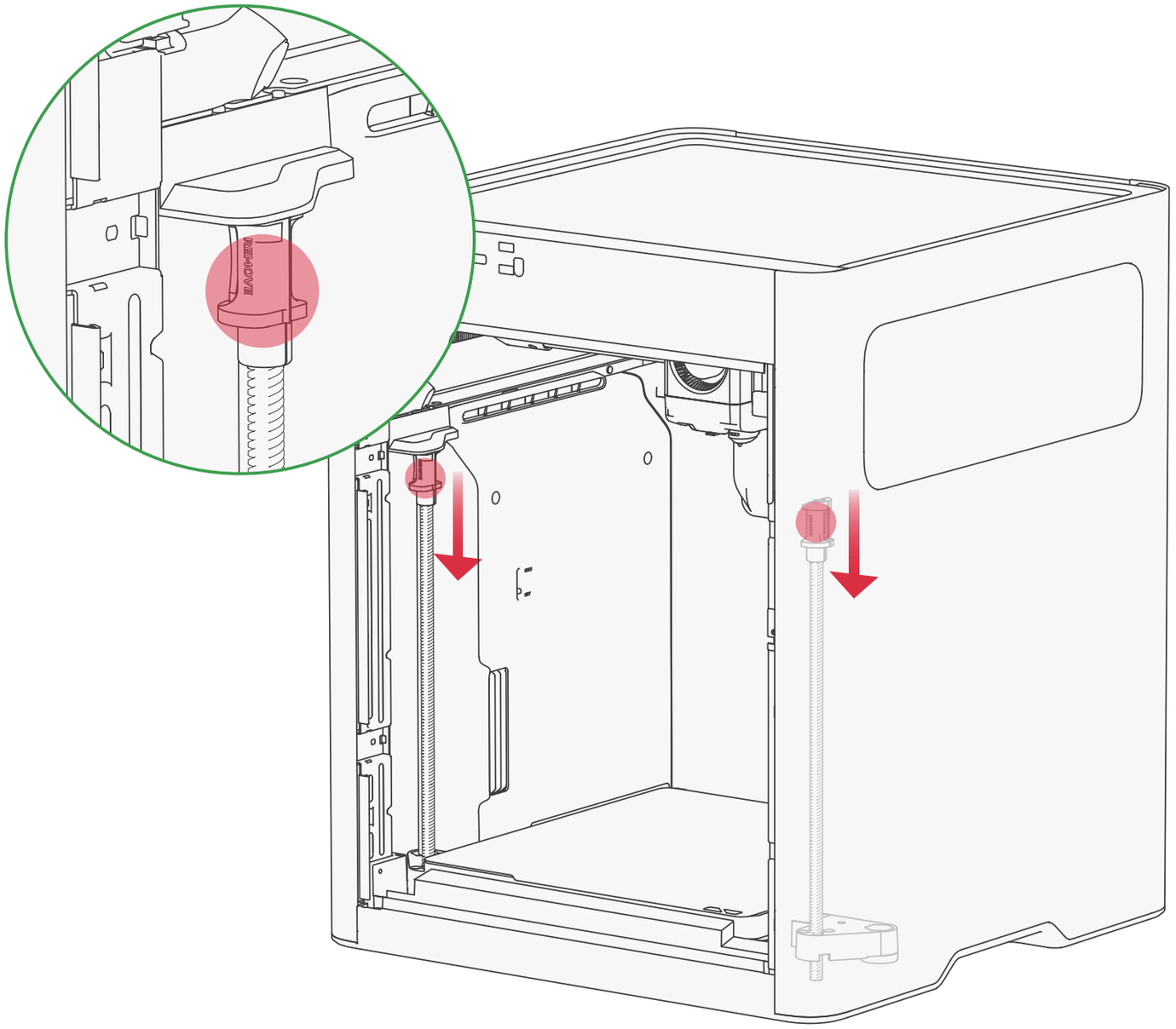
8. Unlock the Heatbed



Use the H2.0 allen key to remove the screw marked in red to unlock the heatbed.

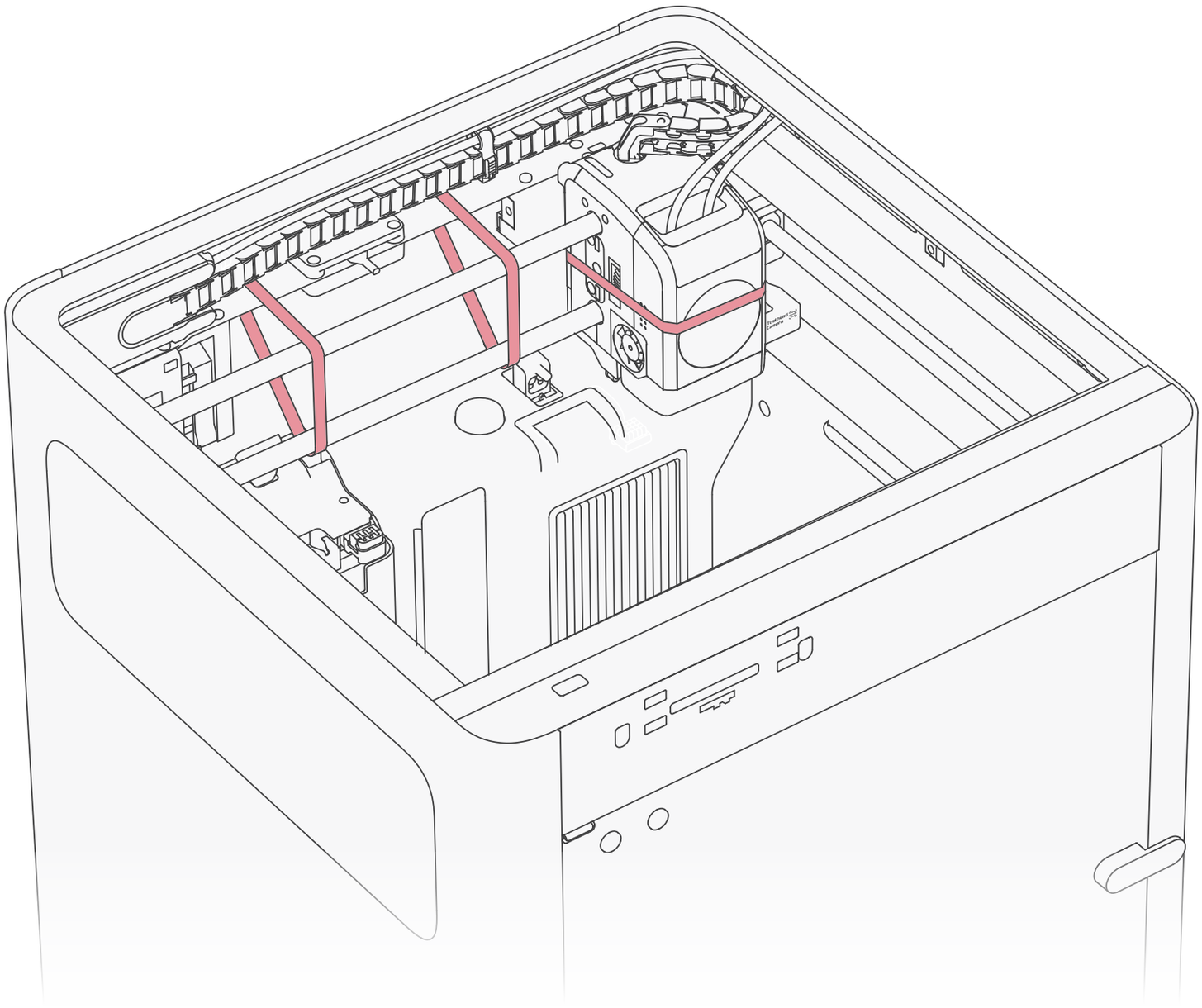
The foam under the heatbed can be removed only after the calibration process is completed.

9. Remove the Lead Screw Protectors



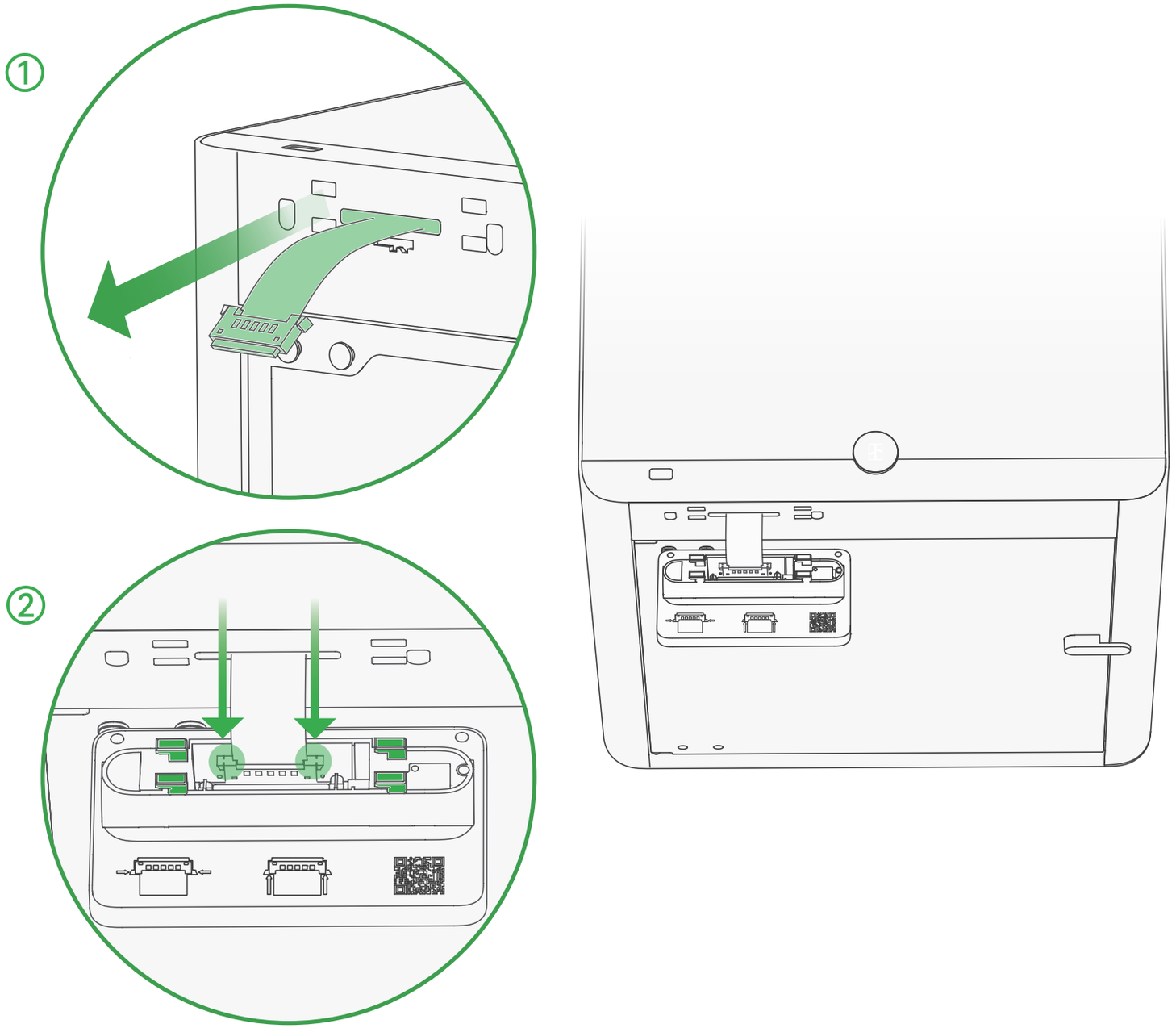
Pull down the red plastic protectors at the top of both left and right Z-axis lead screws, open and remove them.
During this operation, you may notice the Z-axis lead screws moving. This behavior is expected and does not indicate a problem.

10. Unlock the Toolhead



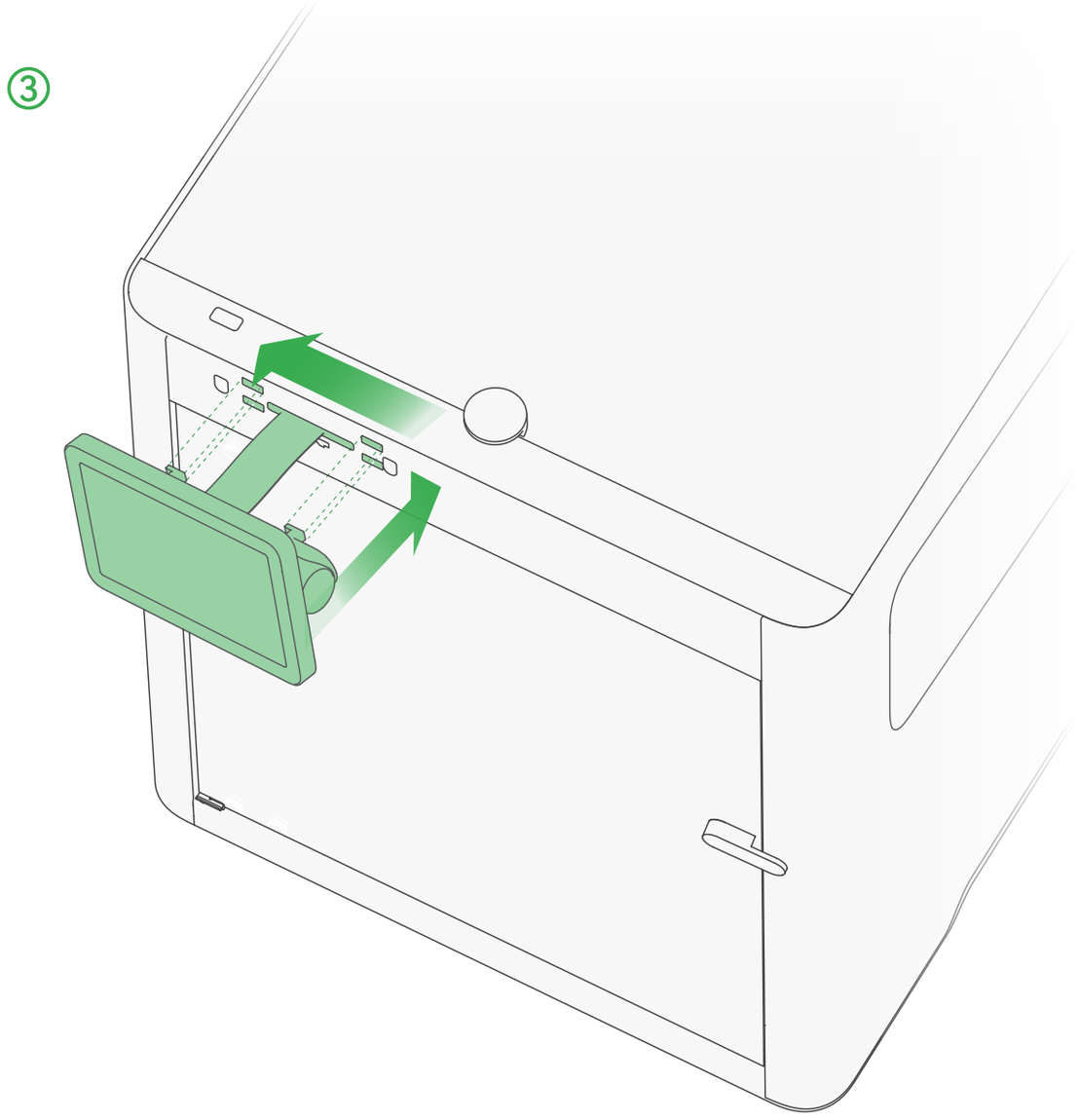
Cut and remove all zip ties and place the top glass cover onto the printer.

11. Install the Touchscreen



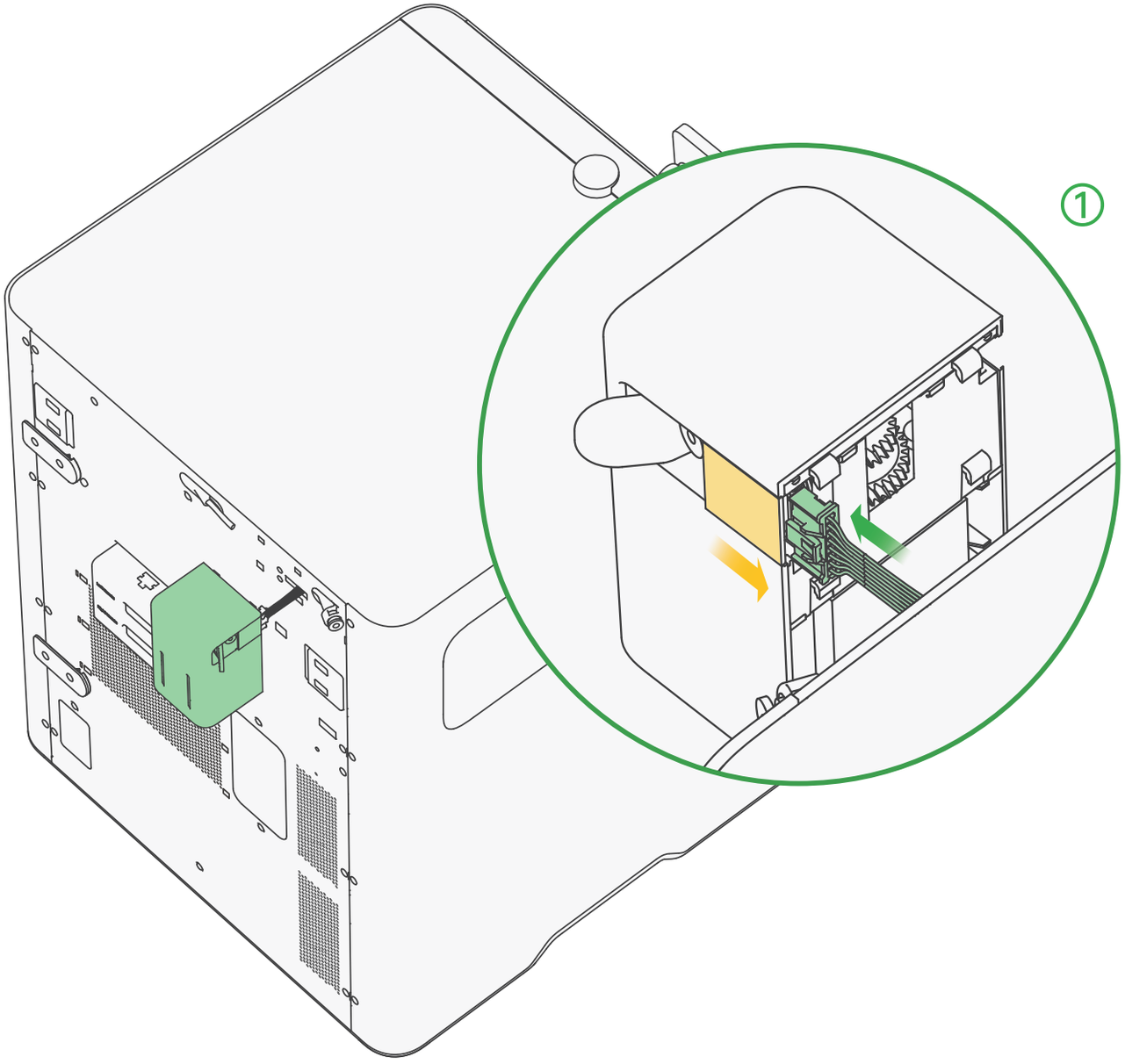
1) Remove the tape and gently pull the flexible cable out about 50 mm.
2) Take the screen from the accessory box and orient it as pictured. Then press the terminals on both sides of the flexible cable and insert it into the screen port.

11. Install the Touchscreen



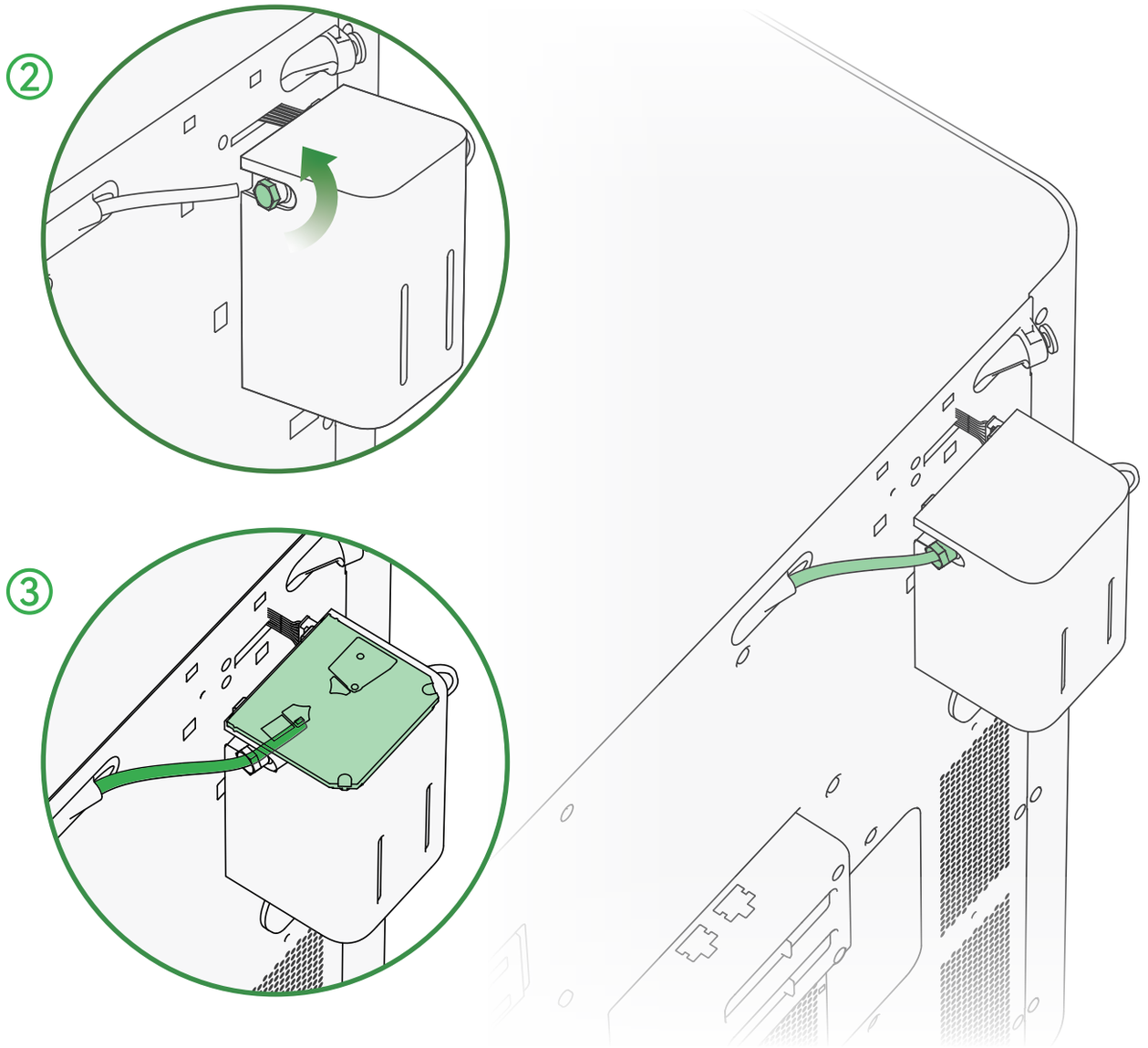
3) Push the flexible cable back into the printer slot. Then insert the screen and slide left to lock.

12. Install the Auxiliary Extruder



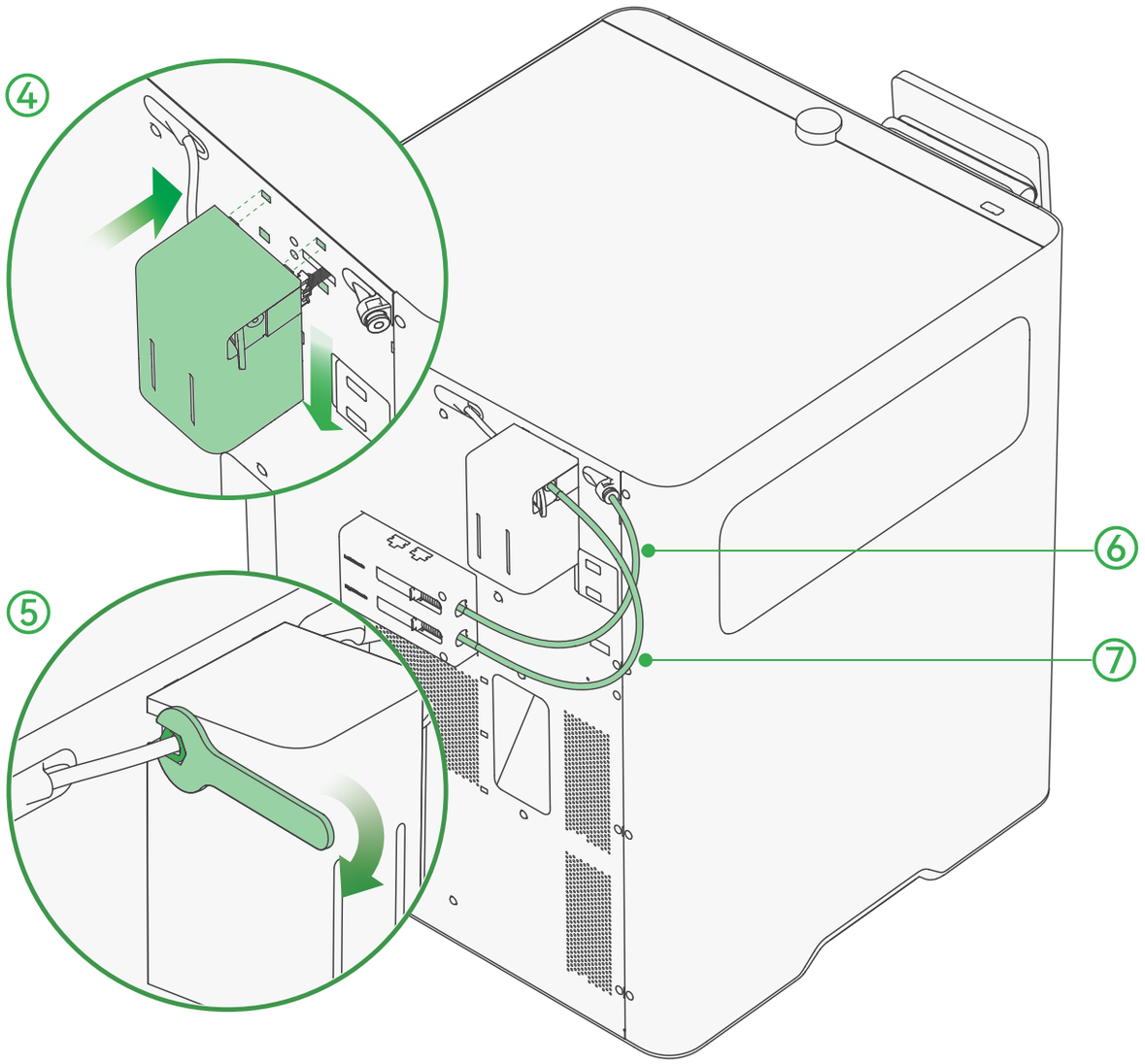
1) Take the auxiliary extruder from the accessory box. Gently pull out the cable from the back of the printer and connect it to the auxiliary extruder.
(For easier access, slide out the yellow cover plate to insert the cable, then slide it back.)

12. Install the Auxiliary Extruder



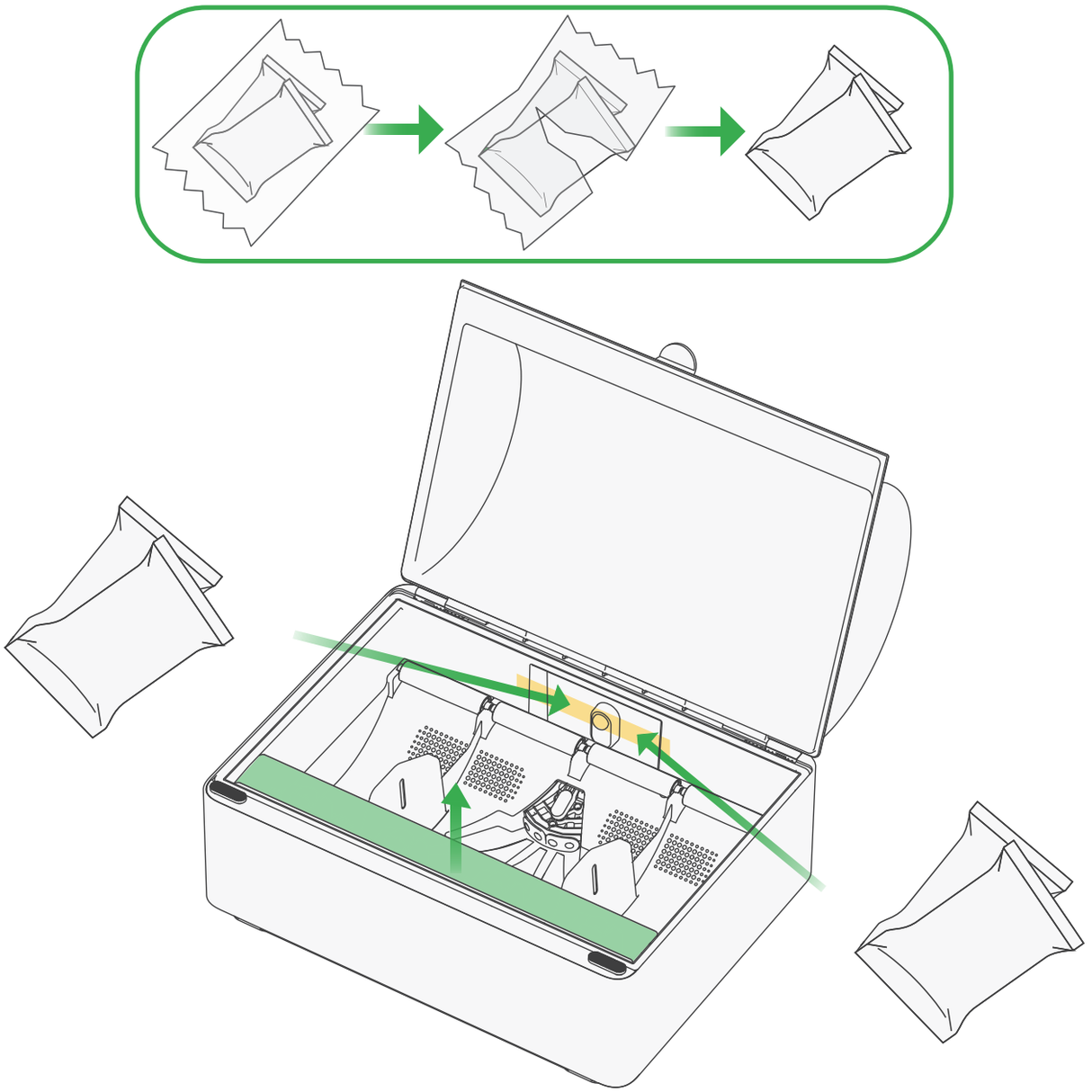
2) Loosen the nut on the left connector of the auxiliary extruder.
3) Insert the PTFE tube located at the top center of the rear panel about 22 mm into the connector. (Ensure the tube is fully inserted, or the filament may curl inside the extruder.)

12. Install the Auxiliary Extruder



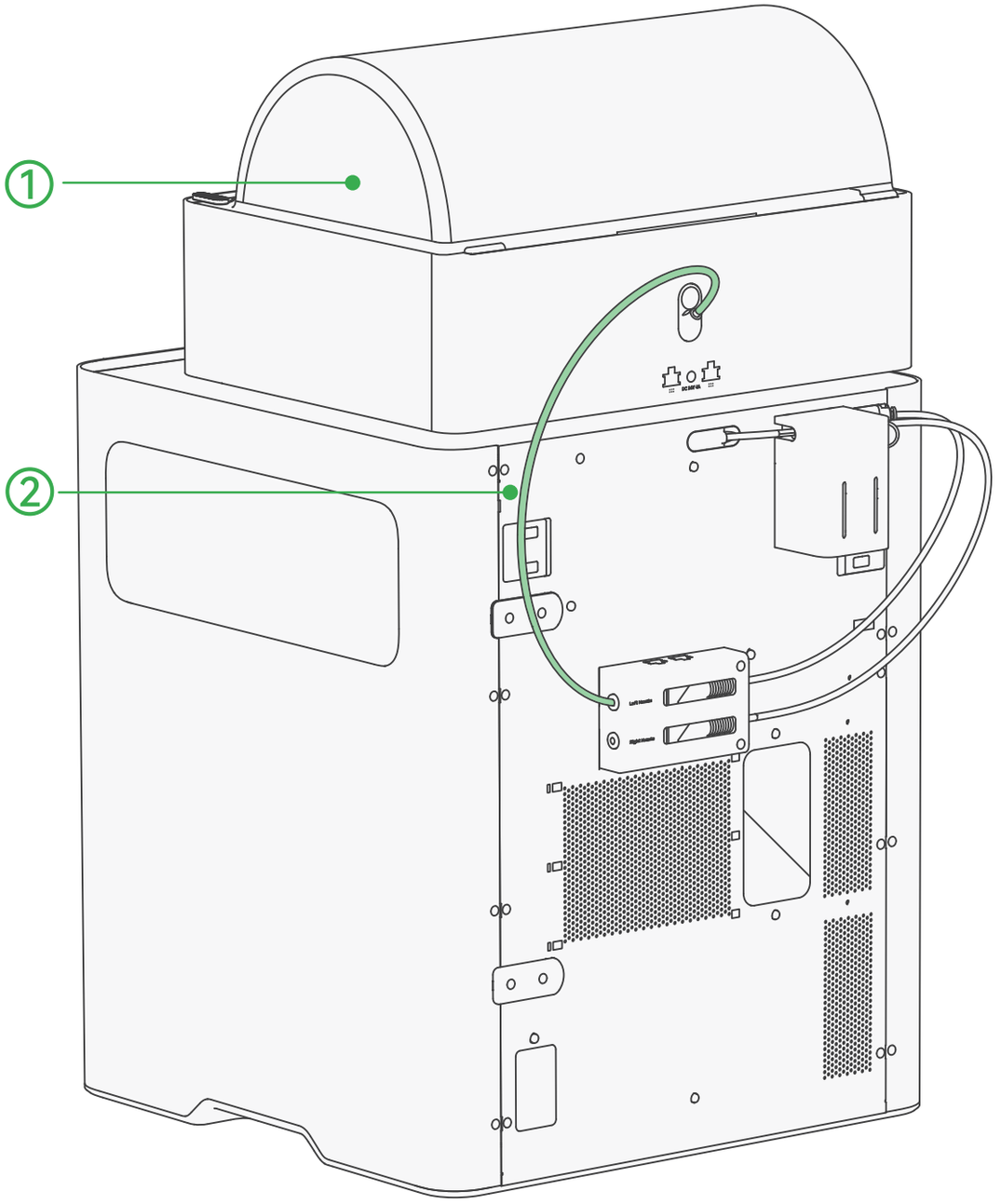
4) Push the cable back into the slot, then insert the auxiliary extruder and press down to lock it in place.
5) Confirm that the left PTFE tube is fully inserted, then use the open-end wrench from the toolbox to tighten the nut until you hear a clicking sound.
6) Remove the tape securing the PTFE tubes connected to the right side of the filament buffer. Then connect the free end of the grey tube to the PTFE tube bracket on the printer.
7) Connect the free end of the white tube to the right of the auxiliary extruder.

13. Remove the Desiccant Packaging Material



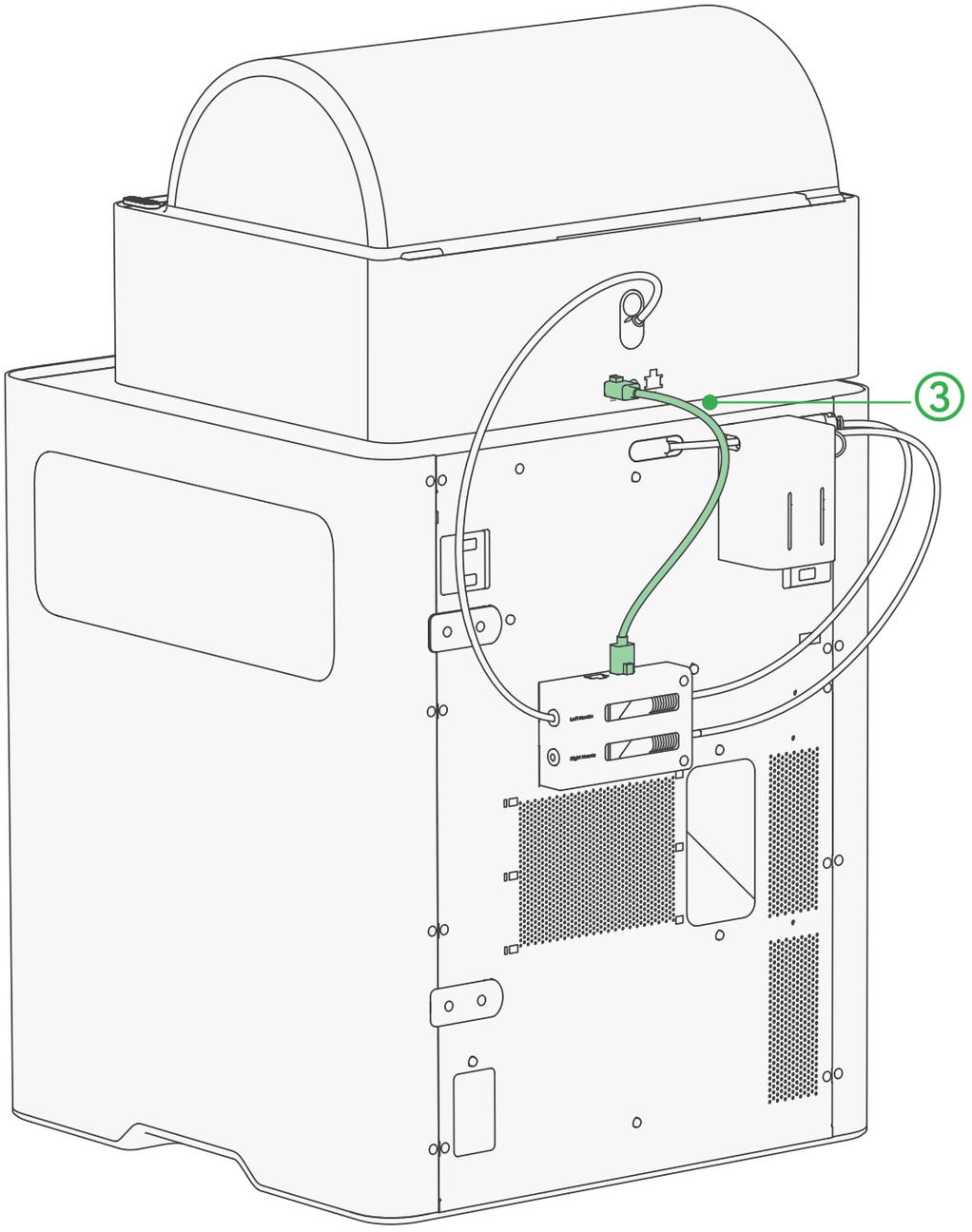
1) Take out the external exhaust fan bundle in the AMS 2 Pro.
2) Remove the foam from inside the AMS 2 Pro.
3) Remove the tape from the back of the AMS 2 Pro and take out the desiccant packs. Then, remove the outer plastic packaging. Install 2 desiccant packs on each side of the empty compartment.

14. Install the AMS 2 Pro



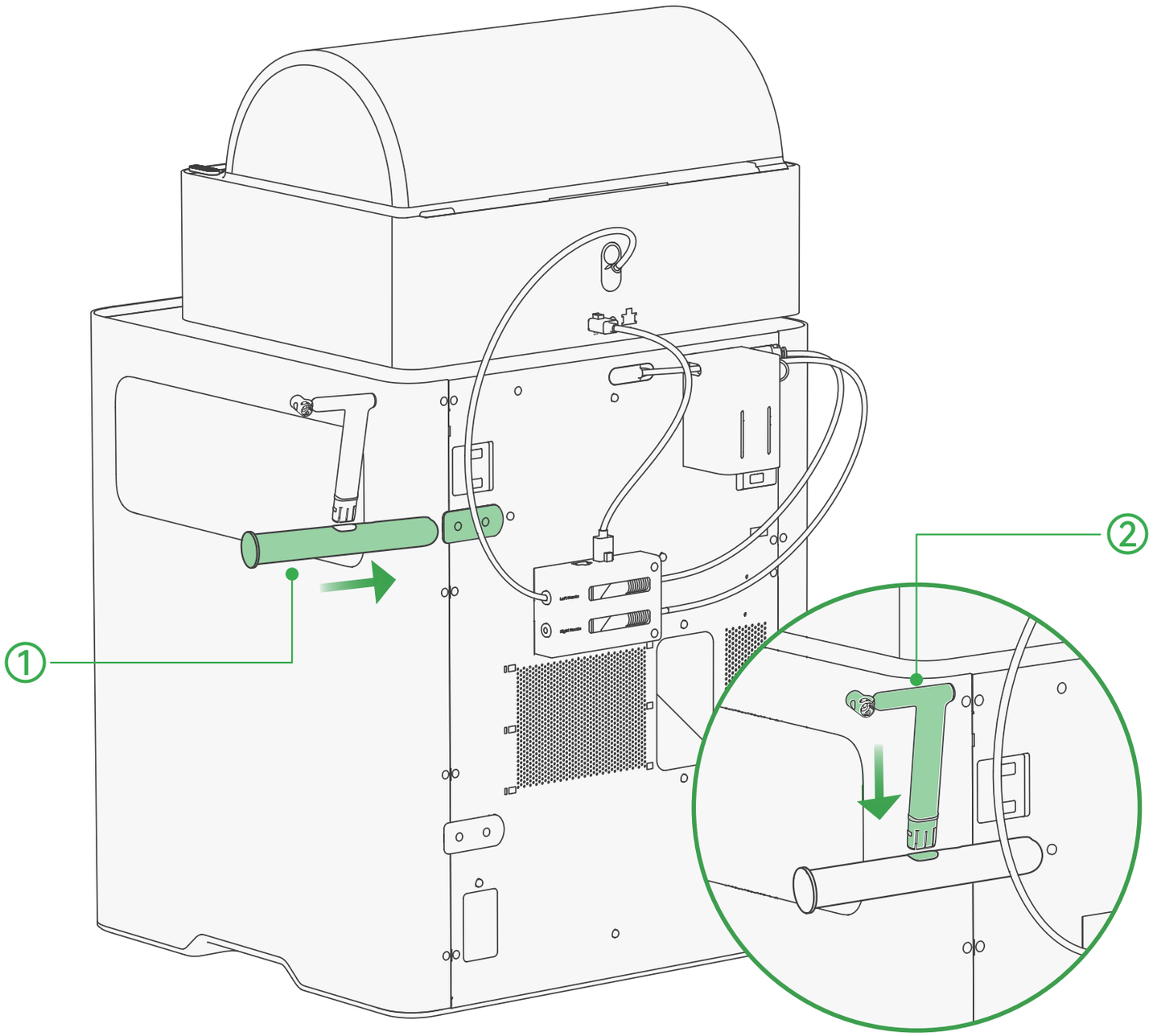
1) Place the AMS 2 Pro on top of the printer.
2) Remove the tape securing the PTFE tubes connected to the left side of the filament buffer. Then connect the free end of the grey tube to the AMS 2 Pro's filament outlet.

14. Install the AMS 2 Pro



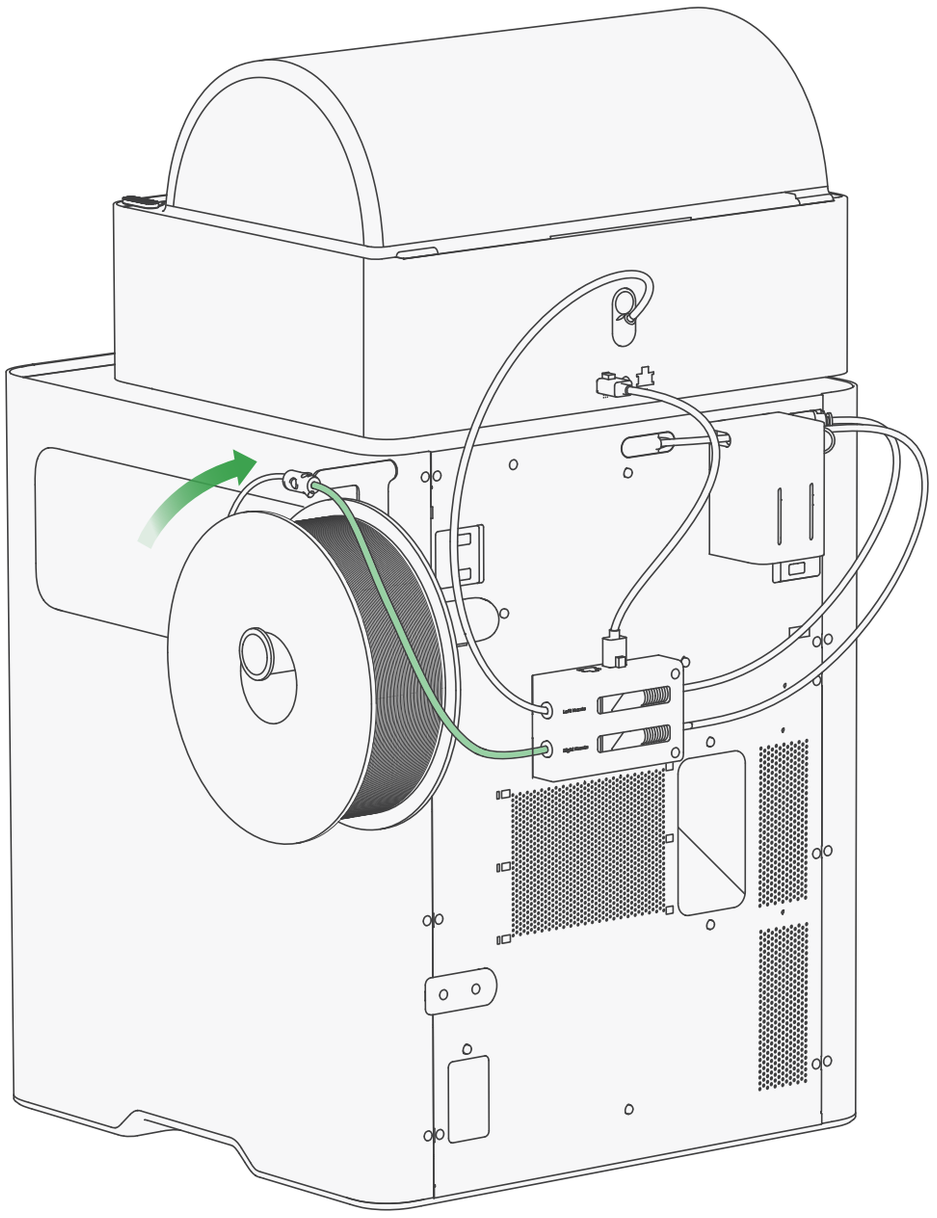
3) Take out the Bambu Bus Cable 6-pin from the accessory box, and plug each end into the 6-pin ports on the filament buffer and the AMS 2 Pro.

15. Install the Spool Holder Assembly



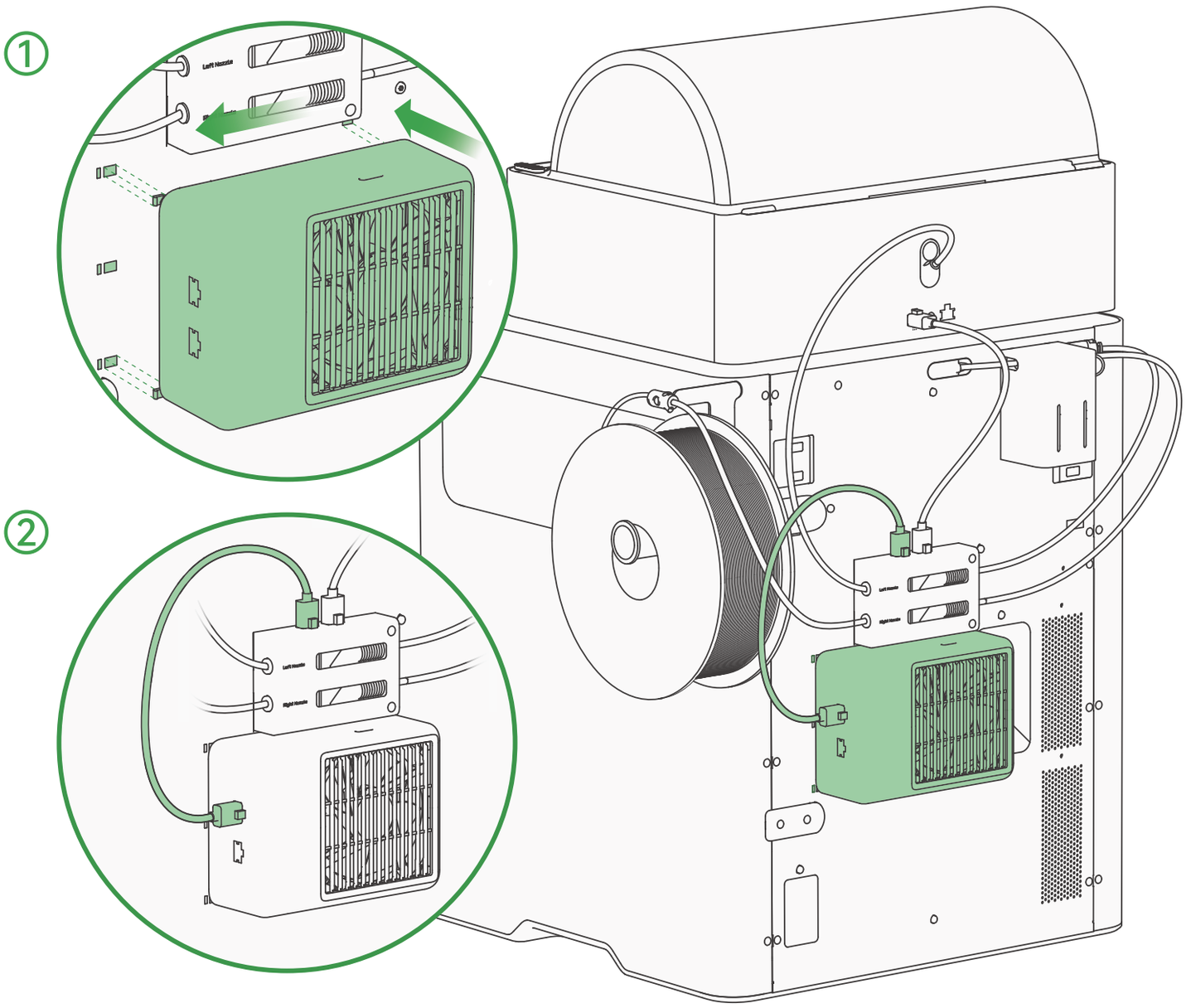
1) Take the spool holder and PTFE tube holder from the accessory box. Slide the spool holder into the base until you hear a click.
2) Align the PTFE tube holder with the slot on the spool holder as pictured, and insert it vertically until you hear a click.

16. Use the External Spool



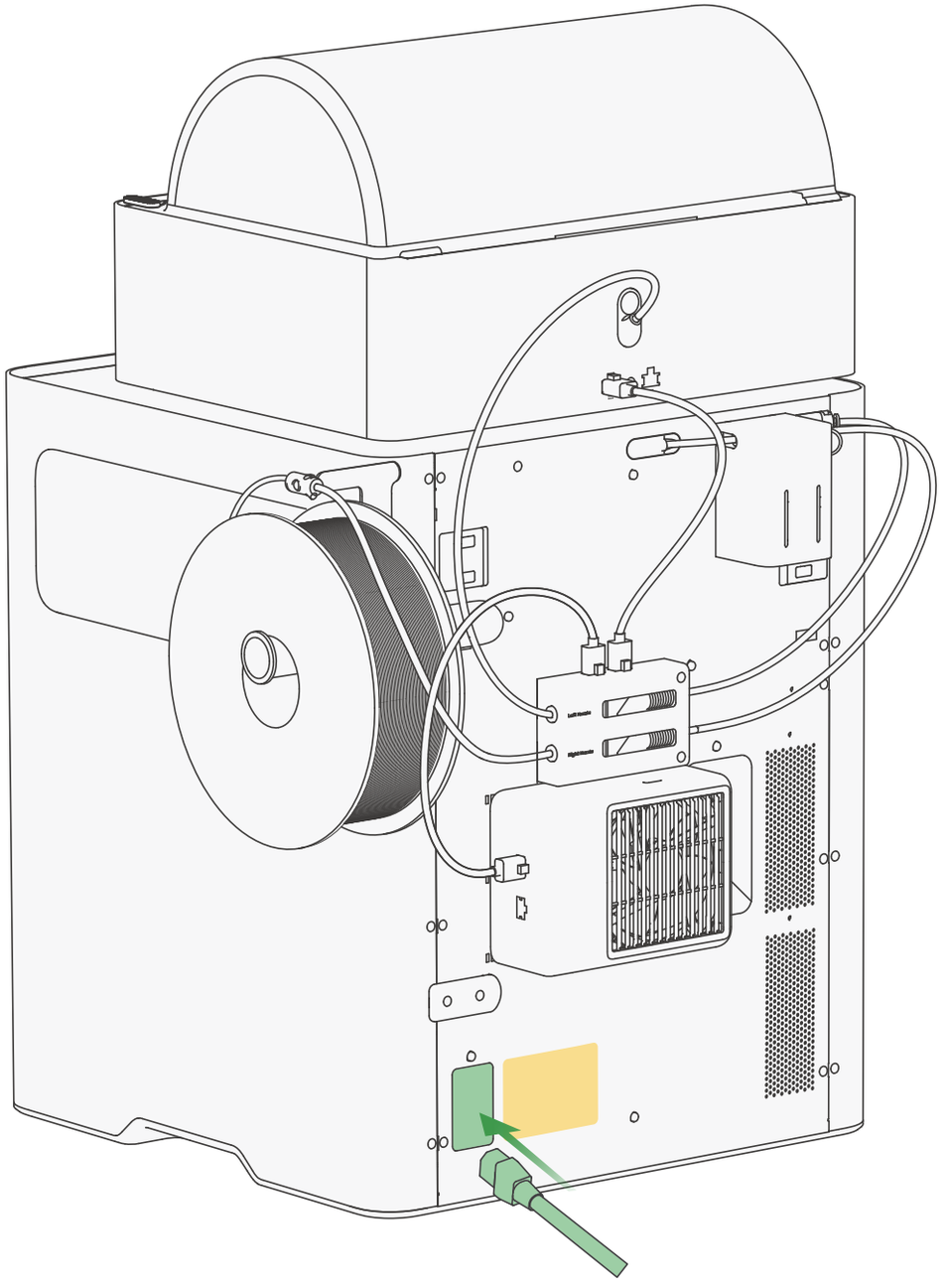
If your printer is connected to the AMS 2 Pro, you can load filament from an external spool using the extra connector on the filament buffer. Connect the free end of the white PTFE tube to the spool holder, then feed the filament into the PTFE tube until it reaches the extruder and stops.

17. Install the External Exhaust Fan Bundle



1) Insert the external exhaust fan into the slot on the back of the printer and slide left to lock it in place.
2) Plug each end of the Bambu Bus Cable 6-pin into the 6-pin ports on the filament buffer and the external exhaust fan.

18. Plug in the Power Cable and Power On



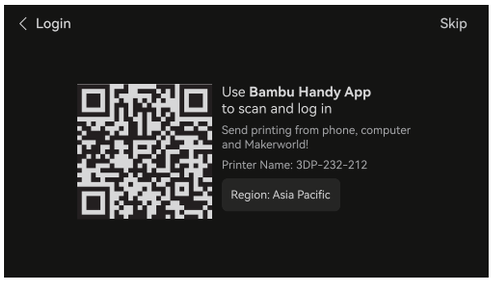
Before powering on, ensure the voltage label near the power socket matches your region. Then connect the power cord and switch on the power.

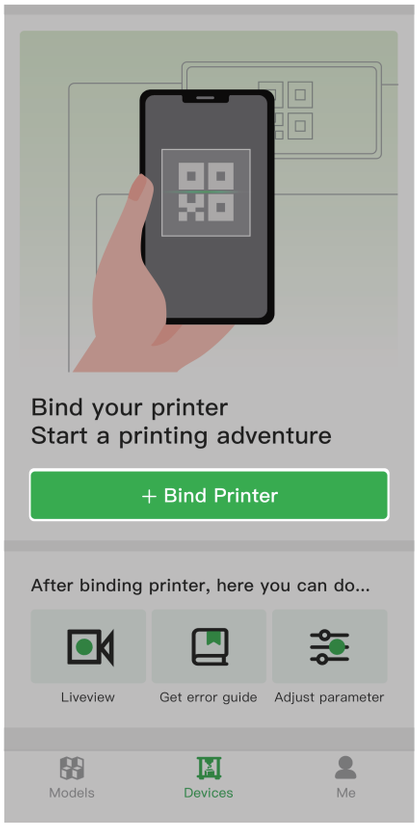
19. Bind the Printer - Bambu Handy

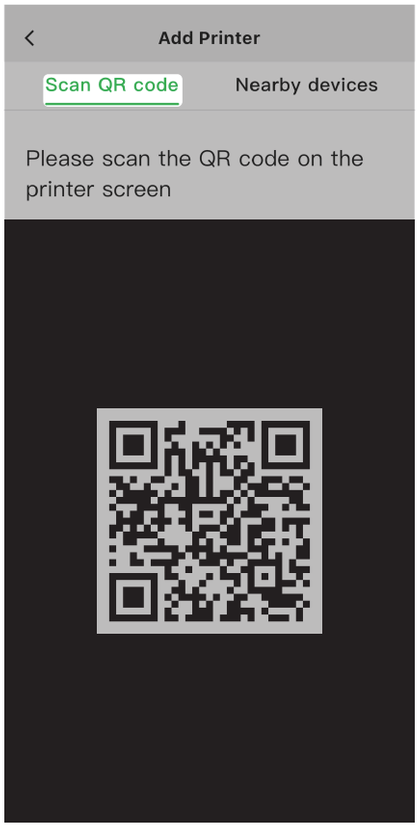
1) Scan the QR code on the right to download Bambu Handy. Register and log in to your Bambu Lab account.

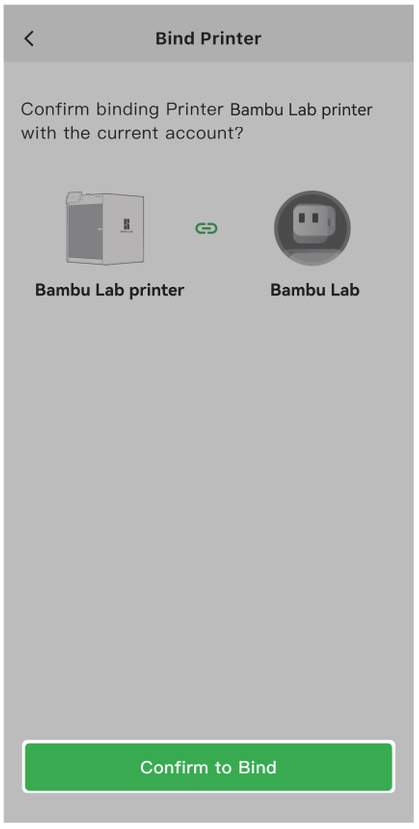
2) Follow the instructions on the screen until a QR code appears.

3) Scan the QR code on Bambu Handy to bind the printer to your Bambu Lab account.





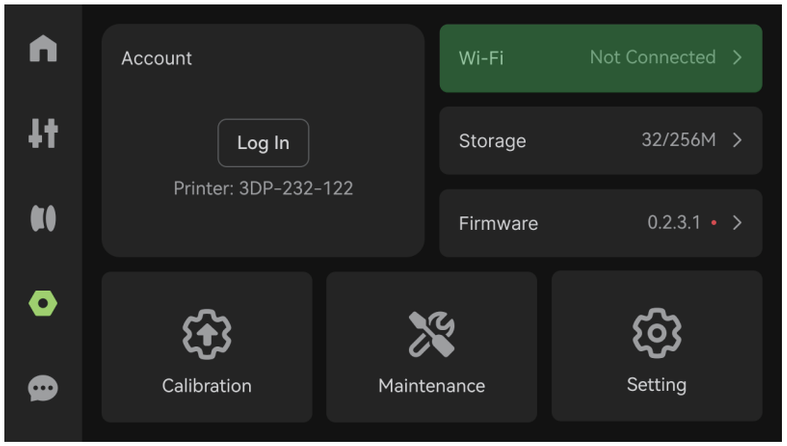




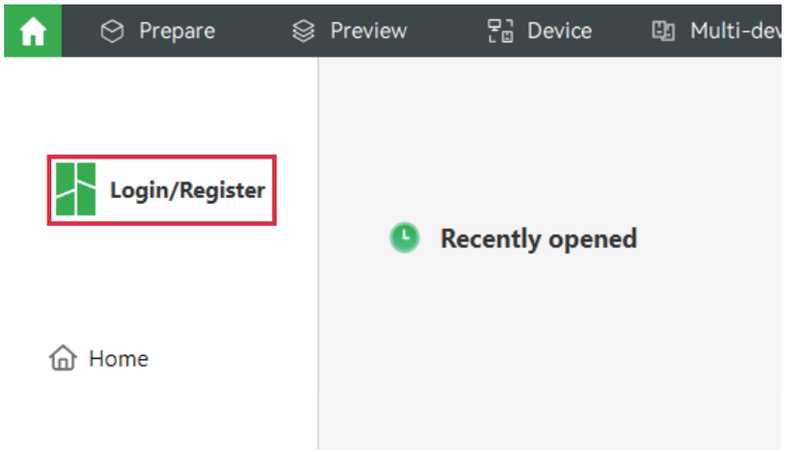
4) Follow the instructions on the screen to complete the initial calibration. It is normal to have vibration and noise during the process.

* DO NOT remove the foam under the heatbed until calibration is complete.

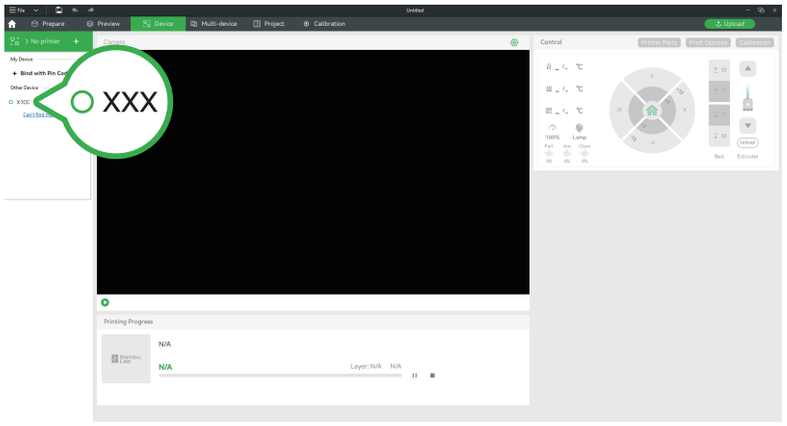
20. Bind the Printer - Bambu Studio



1) Connect both the computer and printer to the **same wireless network**, and do not use a **guest network** that has network device separation enabled.

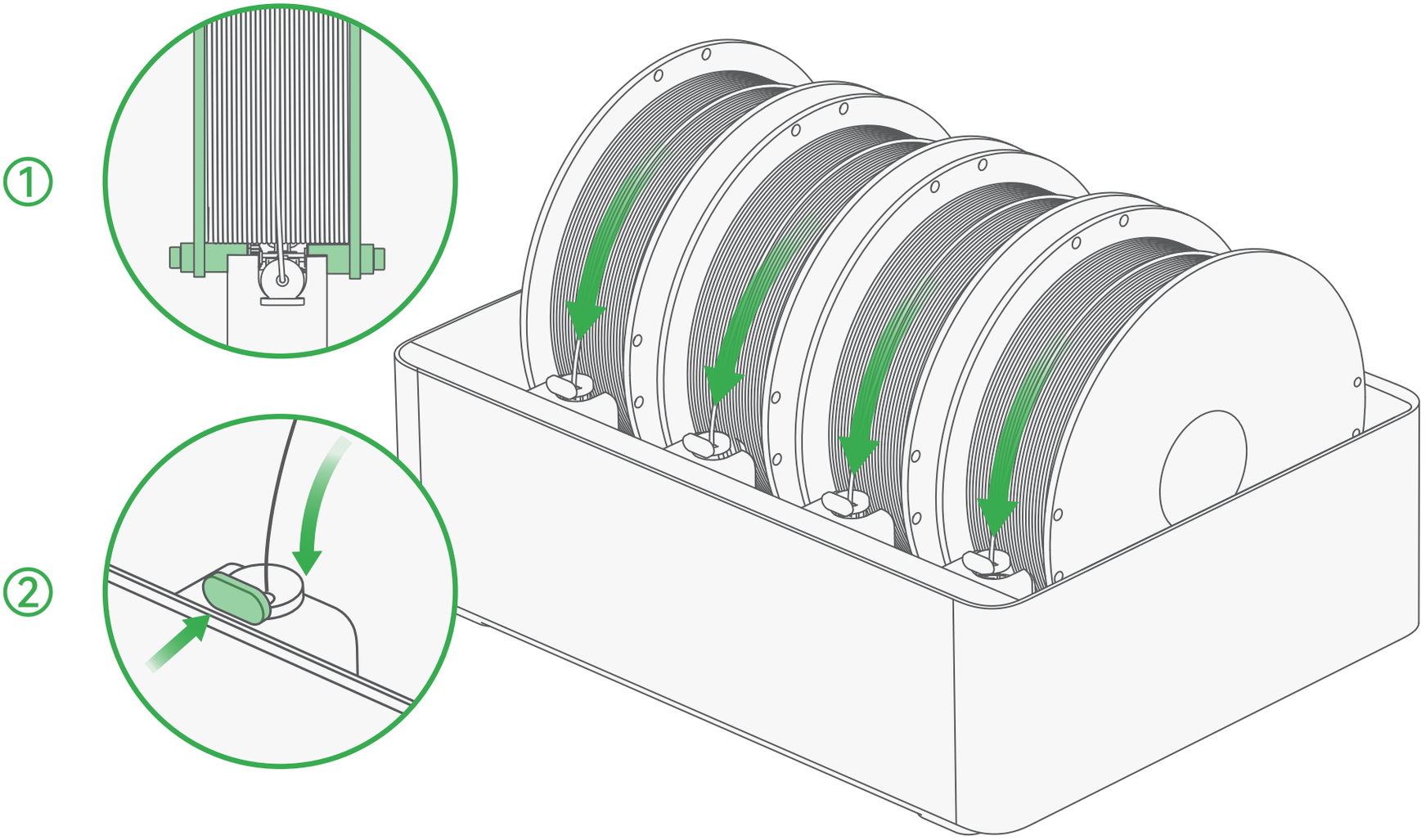


2) Visit the link below to download and install Bambu Studio. Register and log in to your Bambu Lab account.
bambulab.com/download/studio



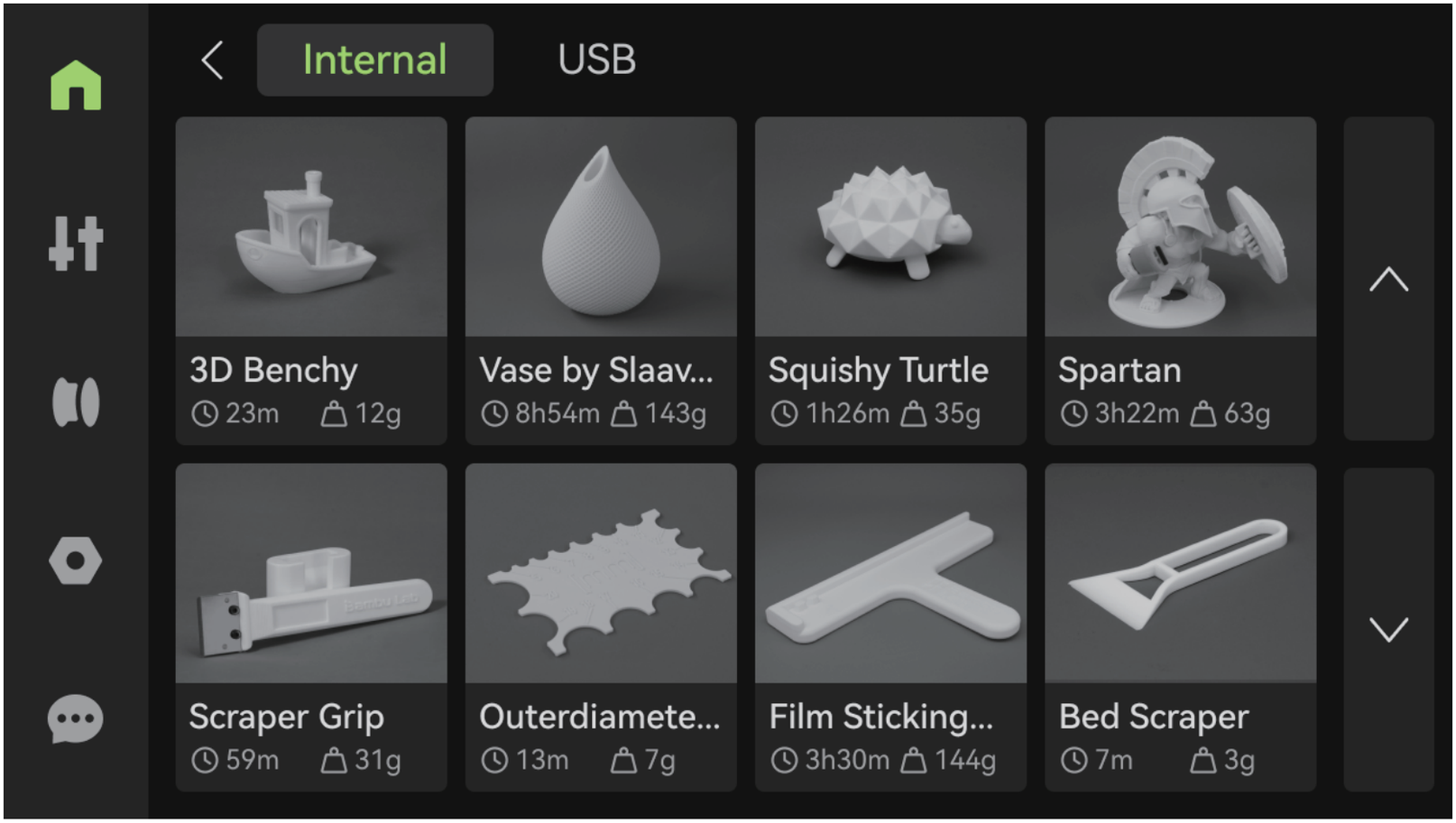
3) Click “+” on the device page, and Bambu Studio automatically discovers printers on the same network. Click the detected printer to bind it to your Bambu Lab account.

21. Load Filament into the AMS 2 Pro



1) Power on the printer and place a spool of filament in any of the four slots. Make sure the spool is correctly placed on the active support shaft as shown in the picture.
2) Push the feeder tab towards the spool, and insert the filament. The AMS 2 Pro will pre-load it after it is detected. When the feeder LED light under the filament inlet is on, the AMS 2 Pro is ready to print.

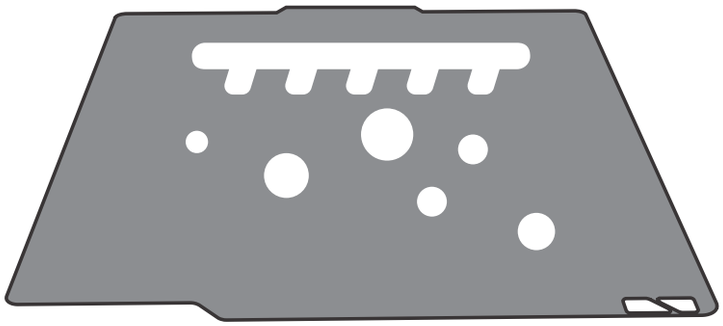
22. First Print



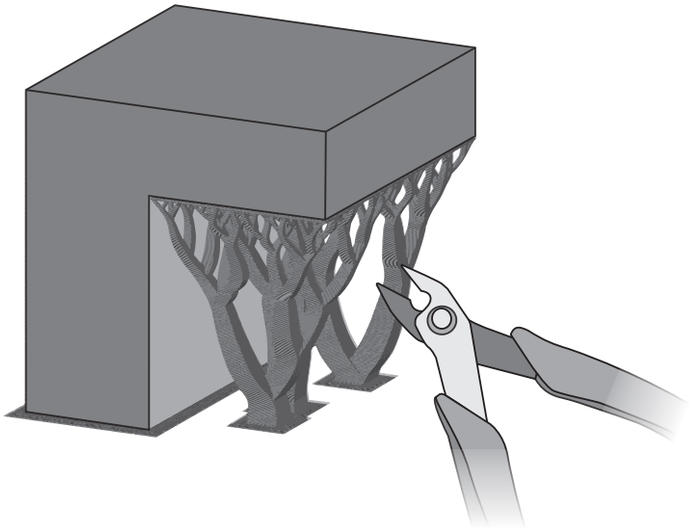
Select - Print Files, then select a model you wish to print and follow the on-screen steps .
* The textured PEI plate that comes with the printer is sensitive to dirt and oil. If you have touched the surface of the plate with your hands, oils from your hands can transfer to the surface and impact the plate's adhesion properties. It is recommended to wash it with hot water and detergent first to ensure the best adhesion.

23. After-Print Notes

Wait until the build plate fully cools down to remove prints.



Wash the build plate regularly with hot water and detergent for best adhesion.



If there is a support structure used, remove it as soon as possible after taking out the print. It will be harder to remove if the filament absorbs moisture.

24. Regular Maintenance

A 3D printer has a complex mechanical structure and numerous moving parts. Regular maintenance is essential to ensure stable operation and high-quality prints.

Metal Moving Parts:

- Lubricate lead screws, linear rods, idler pulleys, and extruder gears regularly to prevent rust.
- Use lubricating oil for linear rods and idler pulleys, and apply lubricating grease to lead screws and extruder gears.

Consumables:

- Inspect plastic and rubber parts, such as filament cutters, for signs of wear, deformation, or aging.
- Replace consumable parts as needed, such as nozzle wipers and PTFE tubes, to maintain print quality.

Other Components:

- Check camera lenses, fans, and filament sensors for dust or debris.
- Clean fans regularly, and gently clean camera lenses using a microfiber cloth with isopropanol or anhydrous alcohol for optimal clarity.

bambulab.com/support/x2d/maintenance

Please refer to the "Regular Maintenance Recommendations" section on our wiki for more information.

25. Printer Specifications

Printing Technology	
Type	Fused Deposition Modeling
Body	
Build Volume (W*D*H)	Main Nozzle Printing: 256*256*260 mm Auxiliary Nozzle Printing: 235.5*256*256 mm Dual Nozzle Printing: 235.5*256*256 mm Total Volume for Two Nozzles: 256*256*260 mm
Chassis	Plastic and Steel
Outer Frame	Plastic, Glass, and Metal
Dimensions and Weight	
Physical Dimensions	392*406*478 mm
Net Weight	16.25 kg
Toolhead	
Extruder Gear	Hardened Steel
Nozzle	Hardened Steel
Max Nozzle Temperature	300 °C
Included Nozzle Diameter	0.4 mm
Supported Nozzle Diameter	0.2 mm, 0.4 mm, 0.6 mm, 0.8 mm
Filament Cutter	Built-in
Filament Diameter	1.75 mm
Extruder Motor	Bambu Lab High-precision Permanent Magnet Synchronous Motor
Auxiliary Extruder	
Extruder Gear	Hardened Steel
Extruder Motor	Stepper Motor
Heatbed	

25. Printer Specifications

Build Plate Material	Flexible Steel Plate
Included Build Plate Type	Textured PEI Plate
Supported Build Plate Type	Textured PEI Plate, Smooth PEI Plate, Cool Plate SuperTack, Engineering Plate
Max Heatbed Temperature	120 °C
Speed	
Max Speed of Toolhead	1,000 mm/s
Max Acceleration of Toolhead	20,000 mm/s^2
Max Flow for Hotend	40 mm^3/s (Test parameters: 250 mm round model with a single outer wall; Bambu Lab ABS; 280 °C printing temperature)
Chamber Temperature Control	
Active Chamber Heating	Supported
Max Temperature	65 °C
Air Purification	
Pre-filter Grade	G3
HEPA Filter Grade	H12
Activated Carbon Filter Type	Granulated Coconut Shell
VOC Filtration	Supported
Particulate Matter Filtration	Supported
Cooling	
Part Cooling Fan	Closed Loop Control
Hotend Cooling Fan	Closed Loop Control
Main Control Board Fan	Closed Loop Control

25. Printer Specifications

Chamber Heat Circulation Fan	Closed Loop Control
Auxiliary Part Cooling Fan	Closed Loop Control
External Exhaust Fan	Closed Loop Control
Filament Supported (Main Hotend)	
Type	PLA, PETG, ABS, ASA, TPU, Support for PLA, Support for PLA/PETG, Support for ABS, Support for PA/PET, PET, PA, PC, PVA; Carbon/Glass Fiber Reinforced PLA, PETG, ABS, ASA, PA6, PAHT, PPA, PET
Filament Supported (Auxiliary Hotend)	
Type	PLA (excluding PLA Aero), PETG, ABS, ASA, TPU for AMS, Support for PLA, Support for PLA/PETG, Support for ABS, Support for PA/PET, PET, PA, PC, PVA; Carbon/Glass Fiber Reinforced PLA, PETG, ABS, ASA, PA6, PAHT, PET
Print with Caution[1)]	PLA Silk, PETG-CF, ASA-CF, PA6-CF, TPU for AMS, Support for PA/PET
Sensor	
Live View Camera	Built-in; 1920*1080
Toolhead Camera	Built-in; 1600*1200
Door Sensor	Supported
Filament Run Out Sensor	Supported
Filament Tangle Sensor	Supported
Filament Odometry	Supported with AMS
Power Loss Recovery	Supported
Electrical Requirements[2)]	
Voltage	High-voltage version: 200-240 VAC, 50/60 Hz Low-voltage version: 100-120 VAC , 50/60 Hz

25. Printer Specifications

Max Power[3)]	High-voltage version: 1600 W@220 V Low-voltage version: 1100 W@110 V
Steady-State Power	High-voltage version: • PLA (25 °C): 250 W@220 V • PC (25 °C): 550 W@220 V Low-voltage version: • PLA (25 °C): 250 W@110 V • PC (25 °C): 550 W@110 V
Environment Requirements	
Operating Temperature	10 °C-30 °C
Electronics	
Touchscreen	5-inch 1280*720 Touchscreen
Storage	Built-in 8 GB EMMC and USB Port
Control Interface	Touchscreen, mobile App, PC App
Motion Controller	Dual-core Cortex-M4 and Single-core Cortex-M7
Application Processor	Quad-core ARM with dedicated NPU
Software	
Slicer	Bambu Studio Supports third-party slicers which export standard G-code, such as Super Slicer, PrusaSlicer and Cura, but certain advanced features may not be supported.
Supported Operating System	MacOS, Windows, Linux
Network Control	
Ethernet	Not Available
Wireless Network	Dual-Band Wi-Fi
Network Kill Switch	Not Available

25. Printer Specifications

Removable Network Module	Not Available
802.1X Network Access Control	Not Available
Wi-Fi	
Operating Frequency	2412 - 2472 MHz, 5150 - 5850 MHz (FCC/CE) 2400 - 2483.5 MHz, 5150 - 5850 MHz (SRRC)
Wi-Fi Transmitter Power (EIRP)	2.4 GHz: <23 dBm (FCC); <20 dBm (CE/SRRC/MIC) 5 GHz Band1/2: <23 dBm (FCC/CE/SRRC/MIC) 5 GHz Band3: <30 dBm (CE); <24 dBm (FCC) 5 GHz Band4: <23 dBm (FCC/SRRC); <14 dBm (CE)
Wi-Fi Protocol	IEEE 802.11 a/b/g/n

1) For optimal print quality, please use the main hotend to print these filaments.
2) The printer's voltage specifications vary by sales region. Before use, please check the label next to the power socket on the printer to ensure the supplied voltage matches the indicated voltage.
3) To ensure the heatbed quickly reaches the needed temperature, the printer will maintain maximum power for about 3-5 minutes.

26. AMS 2 Pro Specifications

Body	
Dimensions	372*280*226 mm
Net Weight	2.5 kg
Housing	ABS/PC
Printing	
Filament Supported	PLA, PETG, ABS, ASA, PET, PA, PC, PVA (dried), BVOH (dried), PP, POM, HIPS, Bambu PLA-CF/PAHT-CF/PETG-CF/Support for PLA/PETG, and TPU for AMS
Filament Not Supported	TPE, generic TPU, PVA (damp), BVOH (damp), Bambu PET-CF/TPU 95A, and other brands of filament that contain carbon fiber or glass fiber
Filament Diameter	1.75 mm
Spool Dimension	Width: 50-68 mm Diameter: 197-202 mm
RFID Identification	Supported
Drying	
Maximum Drying Temperature	65 °C
Filament Supported	PLA, PETG, Support for PLA/PETG, ABS*, ASA*, PET*, PA*, PC*, PVA*, BVOH *, PP, POM*, HIPS*, Bambu PLA-CF*/PAHT-CF*/PETG-CF*, and TPU for AMS*
Active Moisture Discharge	Supported
Sealed Storage	Supported
Temperature and Humidity Detection and Maintenance	Supported. Real-time temperature and humidity can be displayed on the screen, Bambu Studio, and Bambu Handy.
Power	
Input	24 V 4 A

26. AMS 2 Pro Specifications

* Filaments marked with * require a higher drying temperature. The AMS 2 Pro cannot dry them completely. If you want better drying performance for these filaments, we recommend purchasing an AMS HT.

27. Technical Support

If you need technical support, please follow any of the following methods:

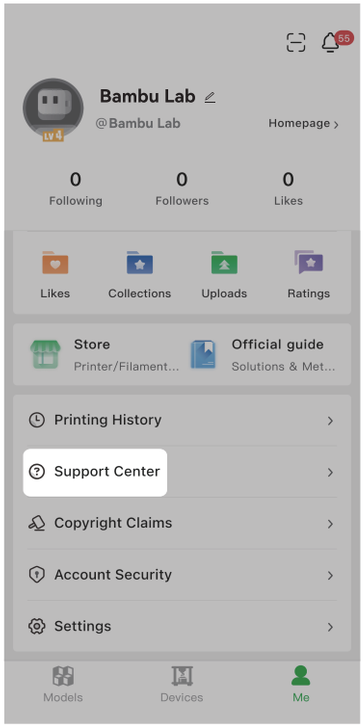
Method 1: Visit the Bambu Lab Wiki for tutorials and maintenance guidance.
wiki.bambulab.com/home

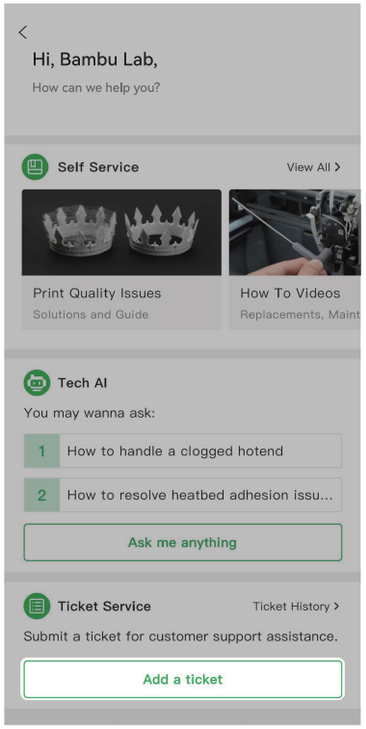
Bambu Lab Wiki

Method 2: Get in touch through one of the options listed in the Contact Us section of our Support Center.
bambulab.com/support

Bambu Lab Support Center

Method 3: Create a support ticket on Bambu Handy, from the Support Center section.





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