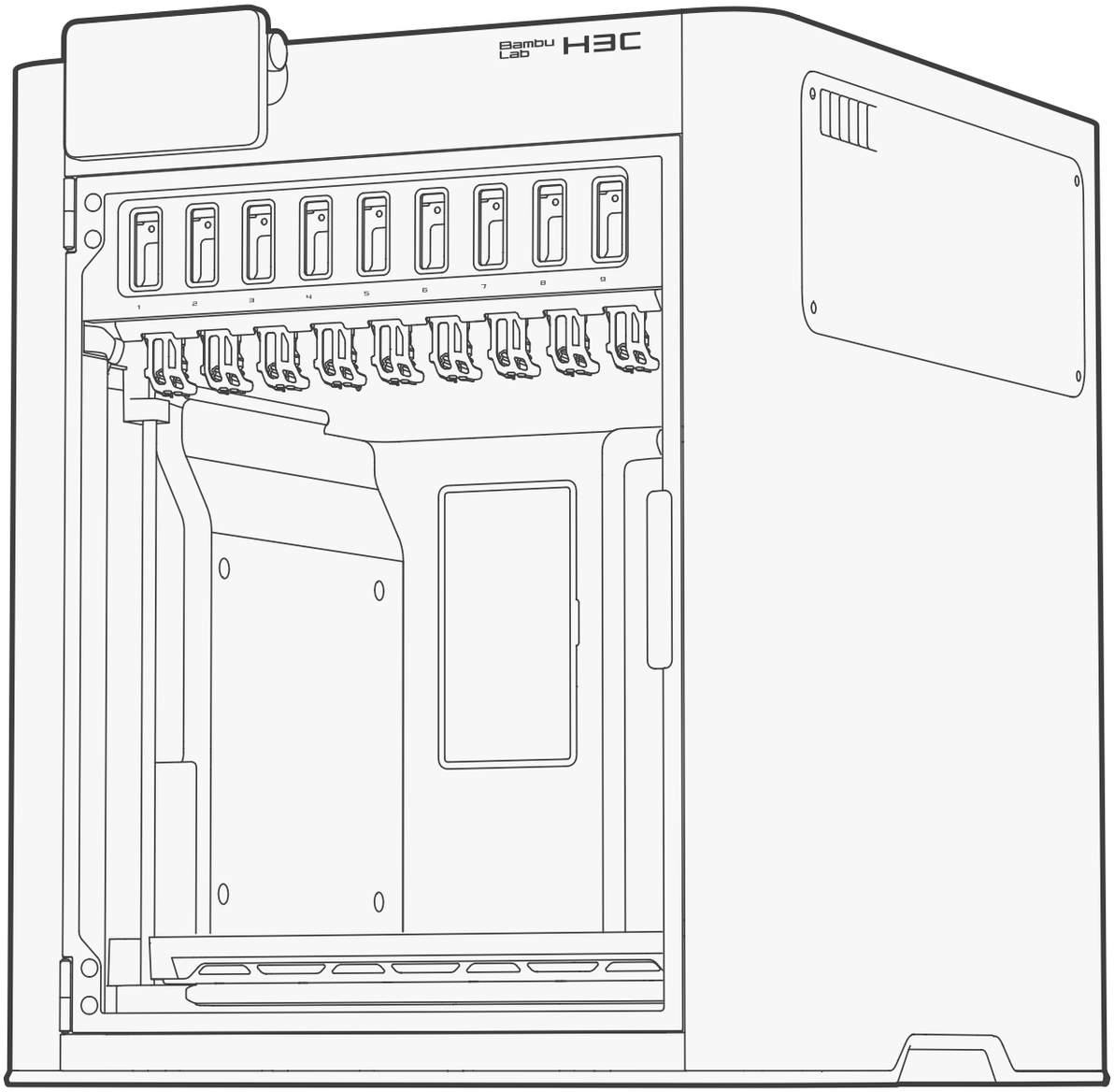
# Bambu Lab H3C

## Quick Start Guide

**Please review the entire guide before using the product.**

Safety notice: 1. Do not connect to power until the assembly is complete.

2. Due to the printer's weight, at least two people are required to carry it.




**PF008-P**

V2.1

**Video Guide**
Watch a step-by-step video and get started quickly.
e.bambulab.com/bambulabh3c-quick-start

**Learn with Bambu Academy**
Visit Bambu Academy and explore printer and software courses from beginner to advanced levels to enhance your 3D printing skills.
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makerworld.com

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# 1. Read Before Use



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

- Packaging materials and accessories may be updated from time to time. Please refer to the version you receive.
- 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 "Printer Regular Maintenance" section.
- For best results, we recommend using Bambu filaments, which have been rigorously tested for compatibility, safety, and stability with the product.
- Please ensure that the PrintTools are placed in the correct docks. If the system prompts a PrintTool placement error, please check and reposition it immediately.
- The AMS 3H is equipped with bypass feeds. When printing TPU with a hardness level of 95A or lower, connect the filament directly to the PrintTool through the bypass feed instead of feeding through the auto filament loader.
- PVA is highly hygroscopic. Please dry it thoroughly before printing to prevent print failures due to moisture absorption.
- PLA Glow and carbon or glass-fiber-reinforced filaments may encounter high resistance when passing through the AMS 3H feeding funnel. We recommend loading these materials from an external spool through the rear of the printer. PPA-CF is prone to breaking when fed through the AMS 3H. Load it from an external spool instead.
- Avoid printing with filaments that have significantly different temperature requirements at

the same time. Low-temperature filaments may soften or melt prematurely in a high-temperature environment, potentially causing nozzle clogs.

- During printing, do not reach into the movement range of the heatbed, toolhead, or SwapTek rack to avoid burns or pinching injuries.
- The SwapTek rack is located at the front of the printer. Please pay attention to the hotend indicator status on the dock: an orange breathing light indicates the hotend is heating, and a solid orange light indicates heating is complete. Do not touch the hotend in either of these states to avoid burns.
- The AMS 3H has two drying slots inside, supporting drying while printing. After loading filament, be sure to close the dry box cover, otherwise the drying performance will be affected.
- The AMS 3H rear panel is equipped with a chamber cooling fan that draws in cool air to cool the upper chamber. Keep the rear of the fan clear and avoid placing other devices' exhaust vents nearby to ensure optimal cooling performance.
- The printer can connect to additional AMS, AMS 2 Pro, and AMS HT units via an optional buffer for external AMS.
- The maximum number of external devices is 8, of which up to 4 can be AMS devices.

## 2. Printer Component Introduction

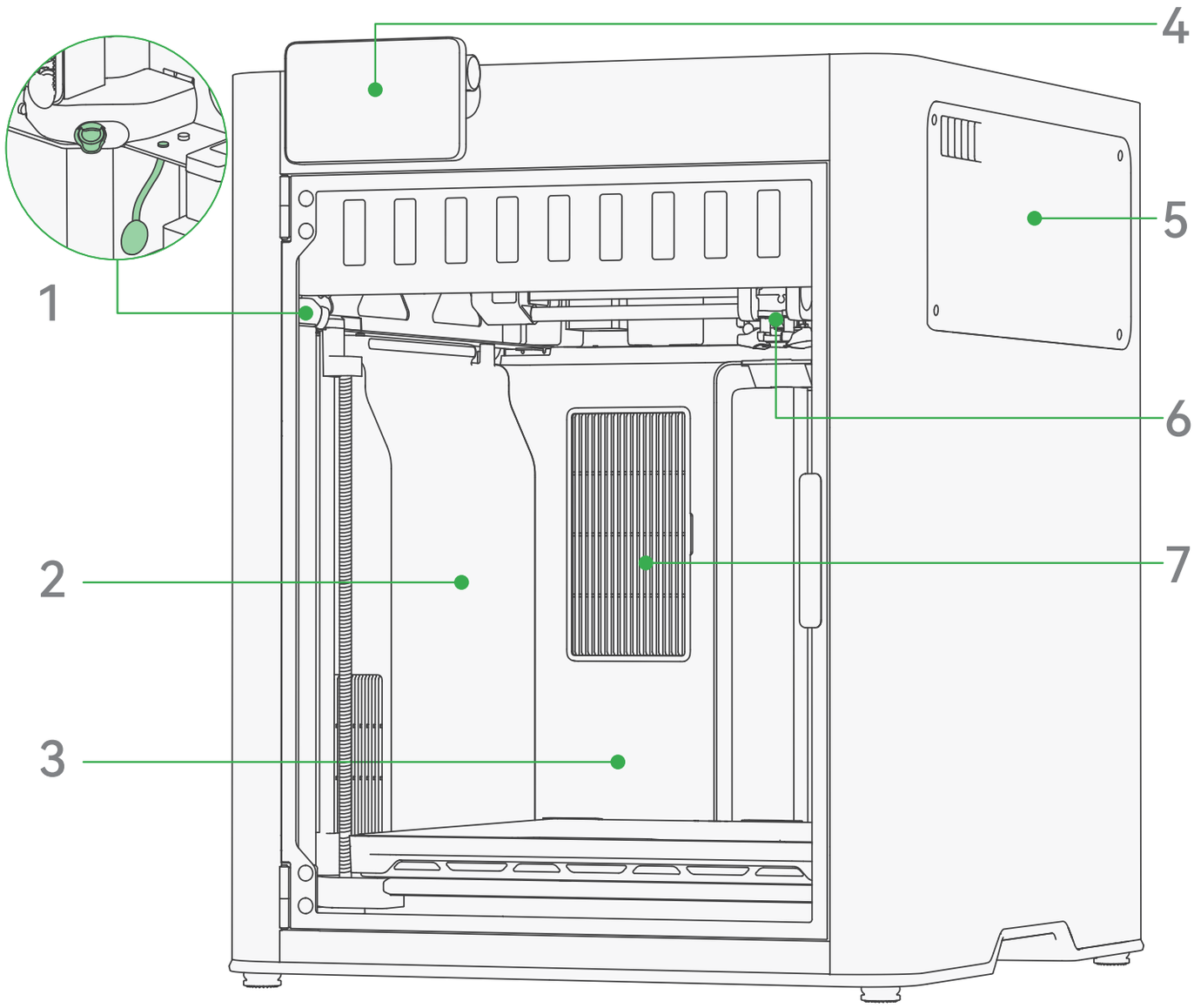



**Figure 1**

1) Live View Camera & Privacy Cover
2) Auxiliary Part Cooling Fan - Left
3) Adaptive Airflow Assembly - Rear
4) Touchscreen
5) Side Window - Right
6) Toolhead
7) Air Filter

## 2. Printer Component Introduction

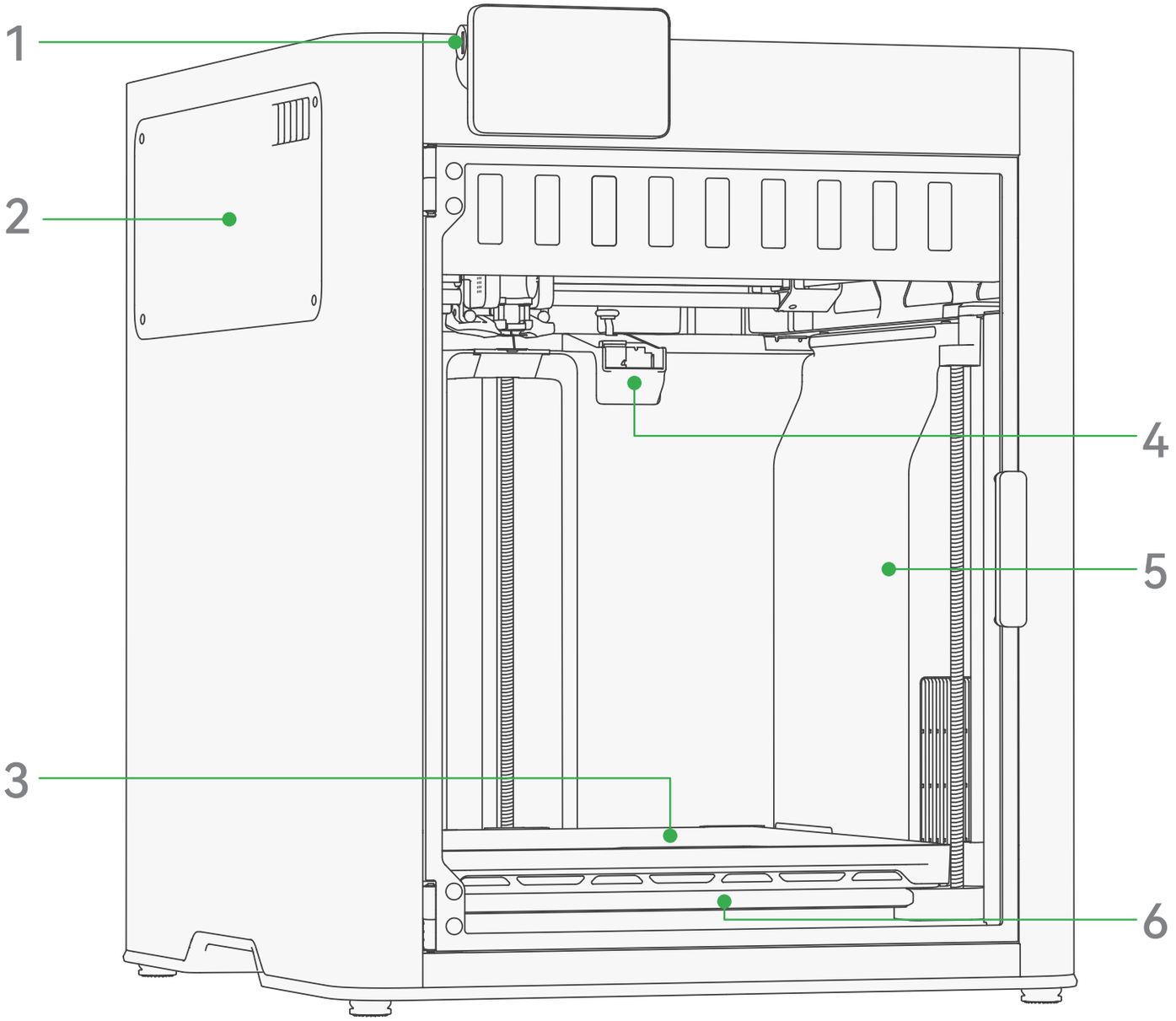



**Figure 2**

1) USB Port
2) Side Window - Left
3) Heatbed
4) Purge Wiper
5) Adaptive Airflow Assembly - Right
6) Status Indicator

## 2. Printer Component Introduction

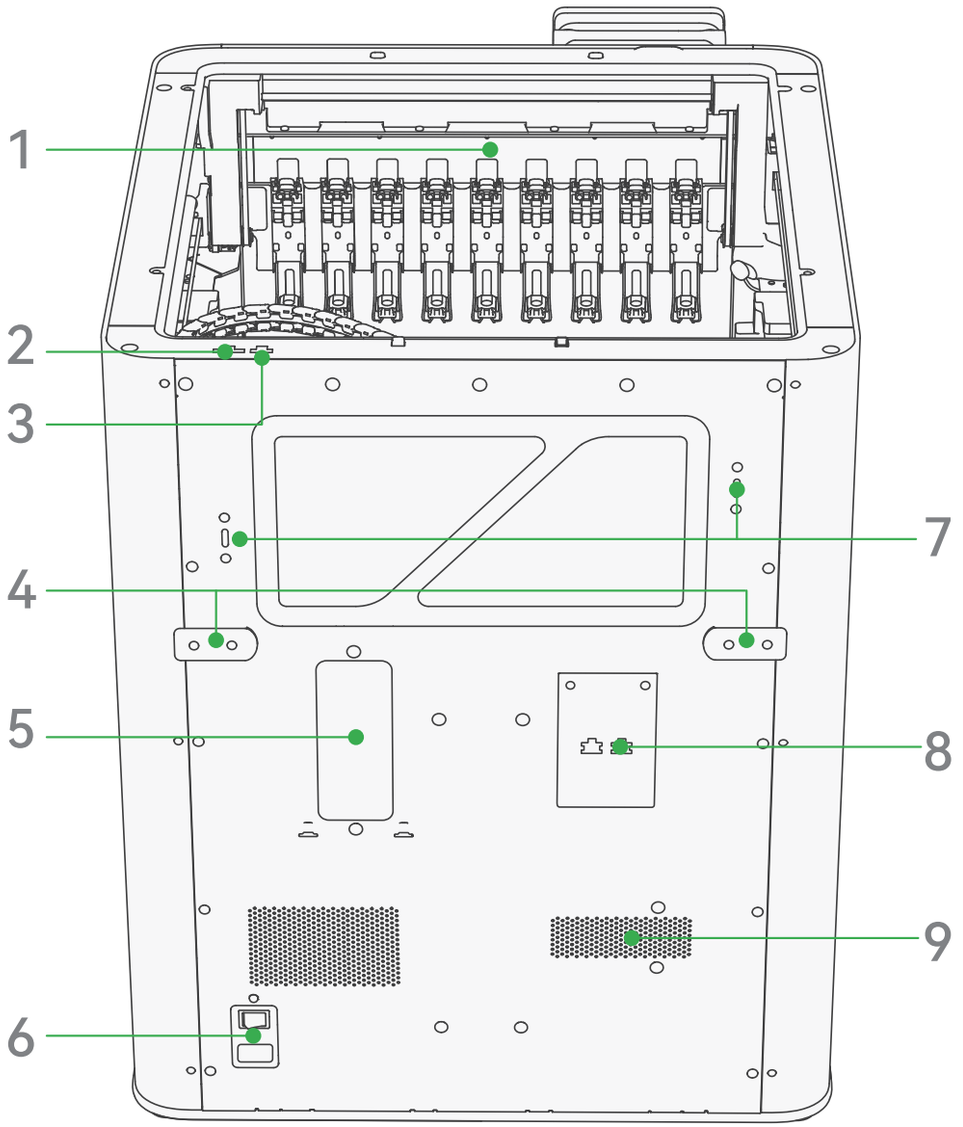
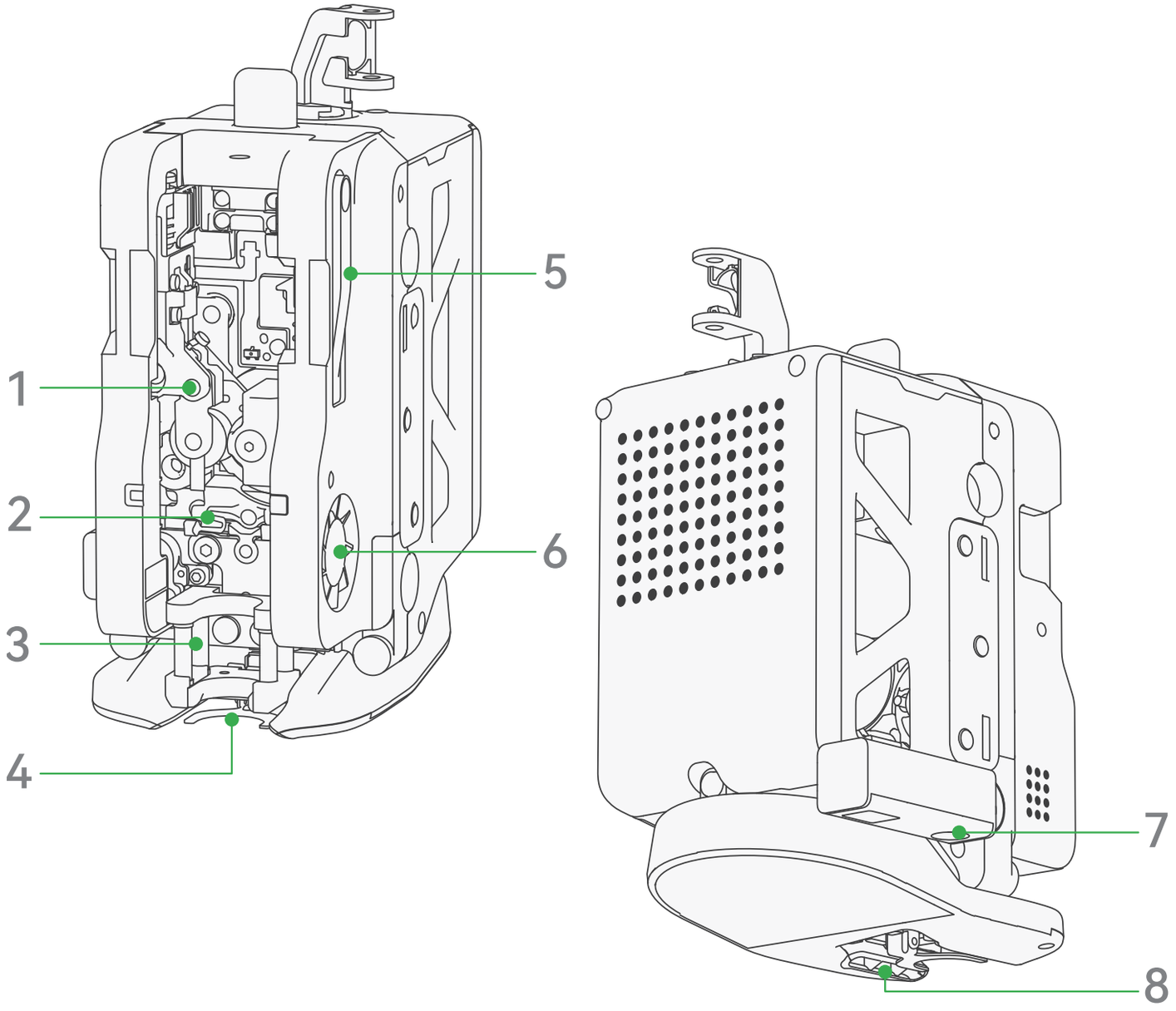



**Figure 3**

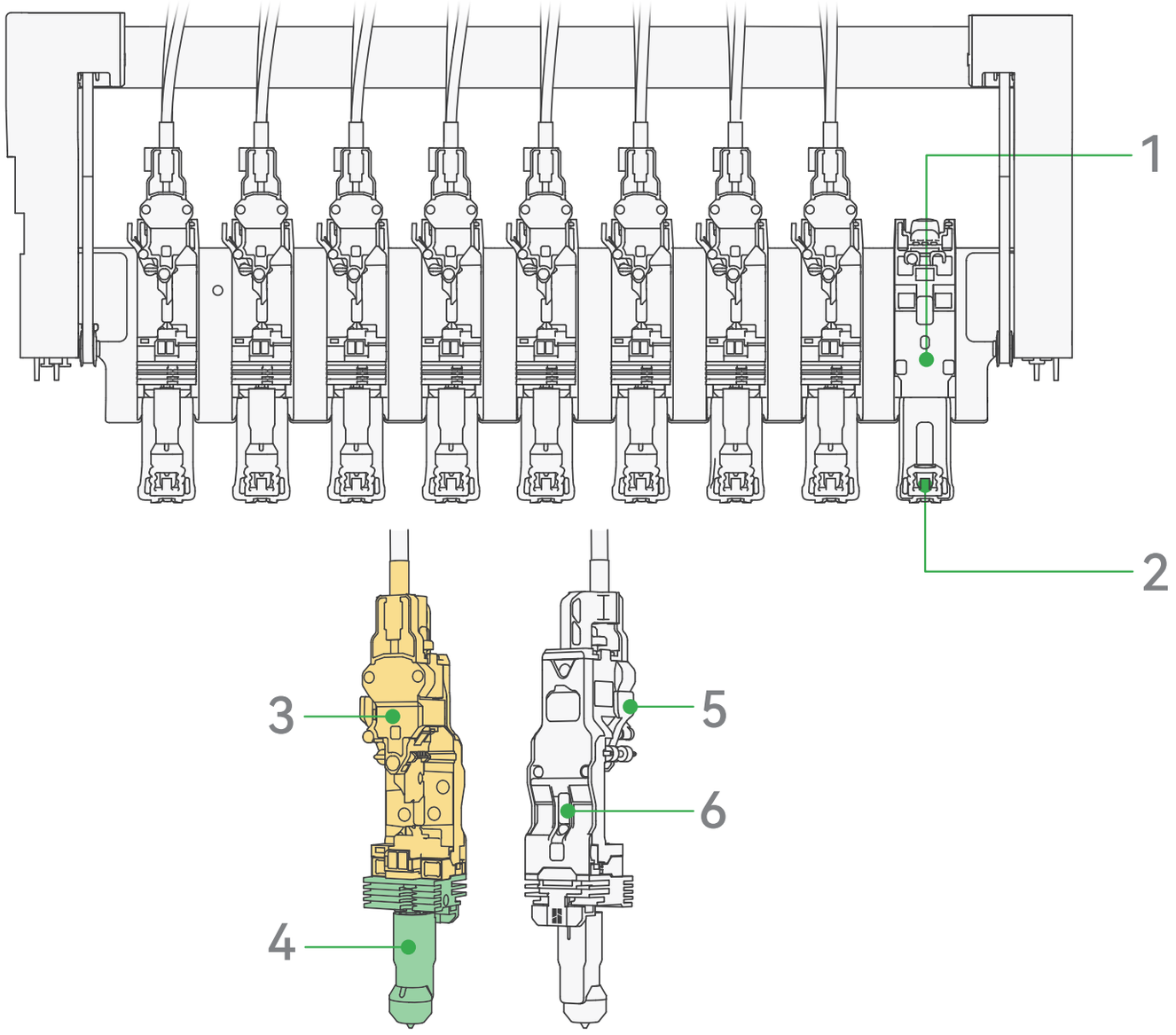
1) SwapTek Rack
2) Tool Control Board Port
3) Chamber Cooling Fan Port
4) Spool Holder Brackets
5) Purge Chute
6) Power Socket
7) Belt Tensioners
8) Bambu Bus Port 6-pin
9) Exhaust Opening

## 3. Toolhead Component Introduction



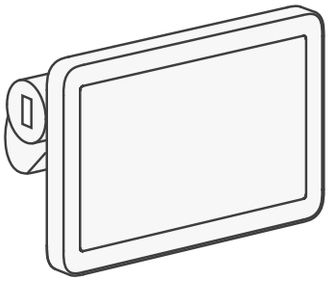

1) Idler Assembly
2) ToolLock Assembly
3) Tool Holder
4) Nozzle Clumping Sensor Assembly
5) Cutter Push Arm
6) Hotend Cooling Fan
7) Toolhead Camera
8) Part Cooling Fan

# 4. SwapTek Rack & PrintTool Component Introduction

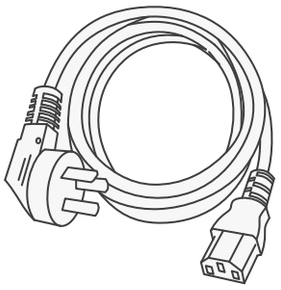



1) Dock Assembly
2) Flow Blocker Assembly
3) PrintTool Base
4) Hotend
5) Cutter Actuator
6) FeedView

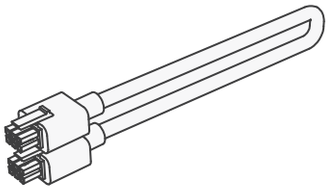
## 5. Included Accessories



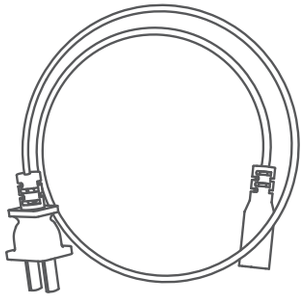
1) Touchscreen



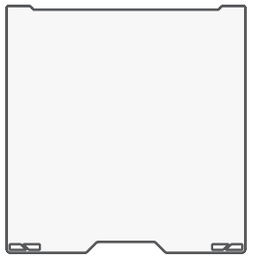
2) Printer Power Cord



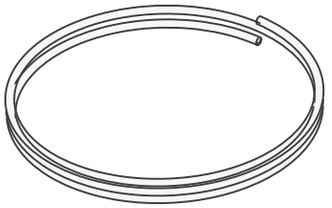
3) Bambu Bus Cable 6-pin



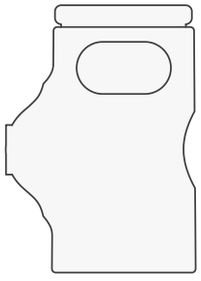
4) Dryer Module Power Cord



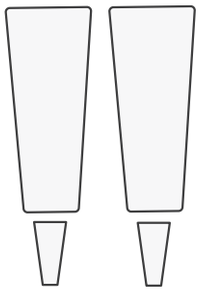
5) Build Plate (Pre-installed on the heatbed)



6) FEP Tube



7) PTFE Tube Connector for Spool Holder

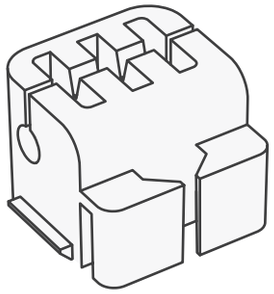


8) Lubricant Grease & Lubricant Oil

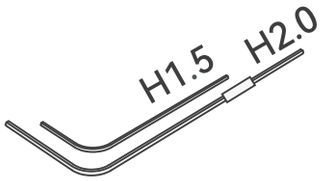


9) Grease for Toolhead

## 5. Included Accessories



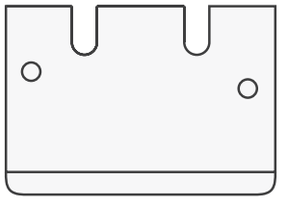
10) Nozzle Wiping Pad



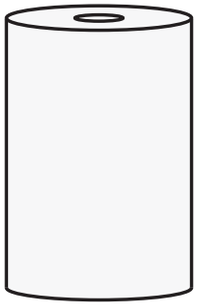

11) Allen Key H1.5
Allen Key H2.0



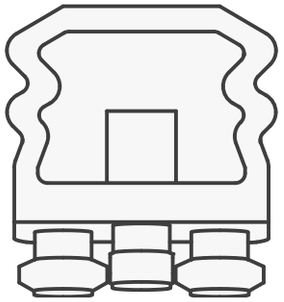
12) Unclogging Pin



13) Scraper Blade



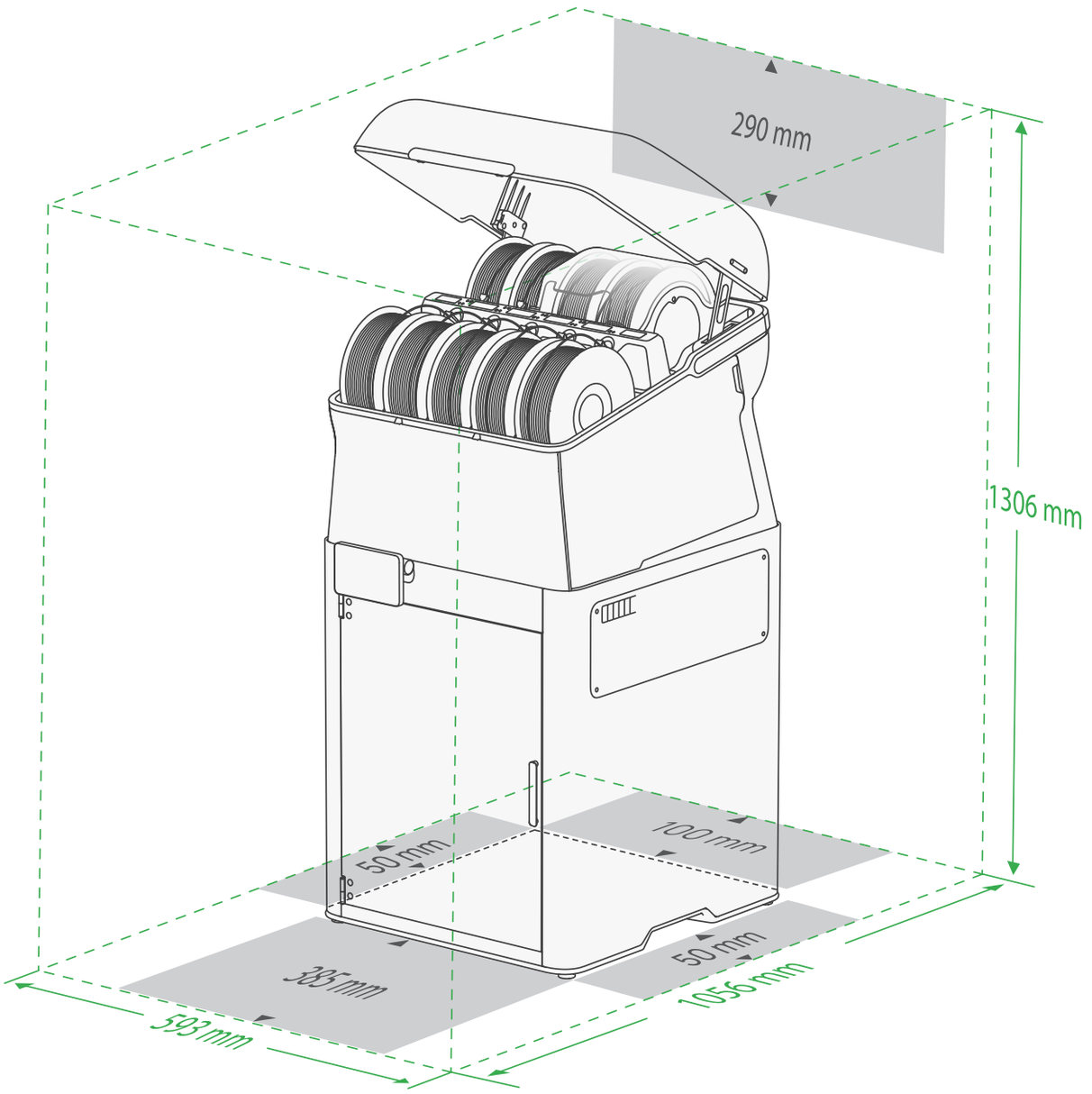
14) Toolhead Motor
Release Socket



15) Flow Blocker Pad

## 6. Unboxing and Installation

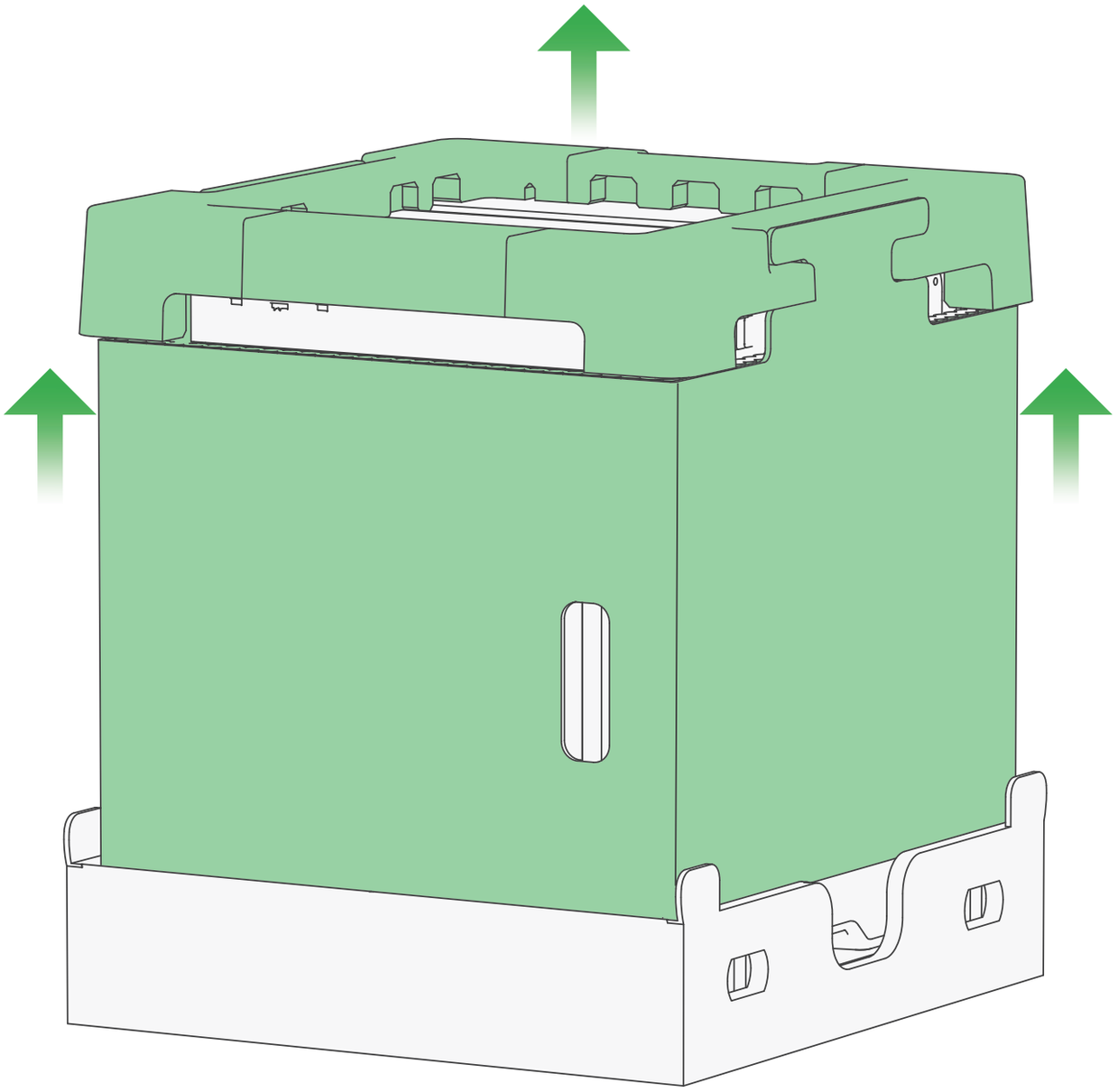
Keep packaging materials and screws for shipping.




The assembled printer measures 493*571*1016 mm. Place it on the floor or a low, stable surface, and leave at least 593*1056*1306 mm of space for operation.

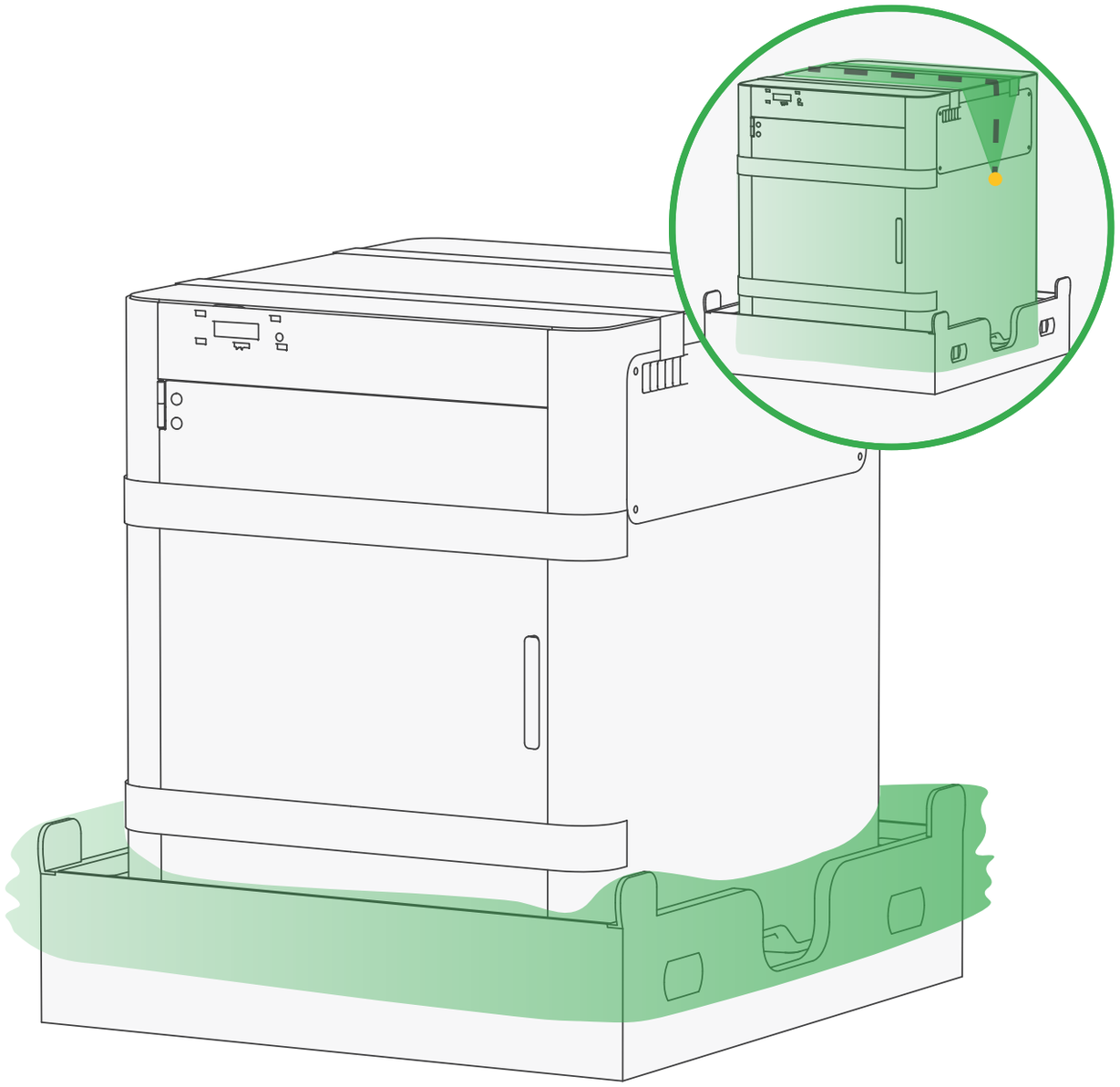
If you purchased the Bambu Station L, assemble it according to the tutorial, then place the printer on top.

## 6.1 Remove the Package



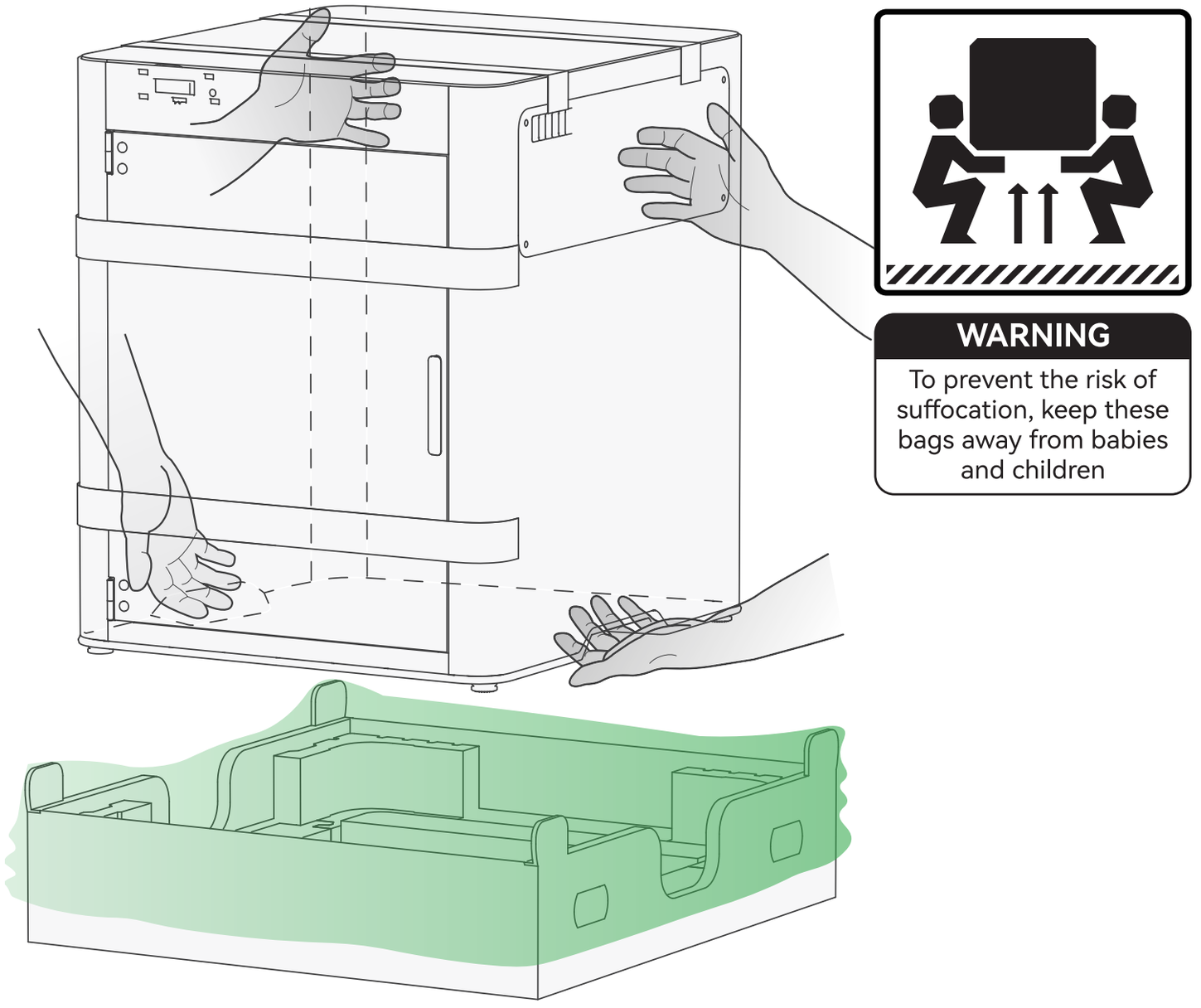
1) Remove the cardboard, foam, and air cushions from the top and sides of the printer.

## 6.1 Remove the Package



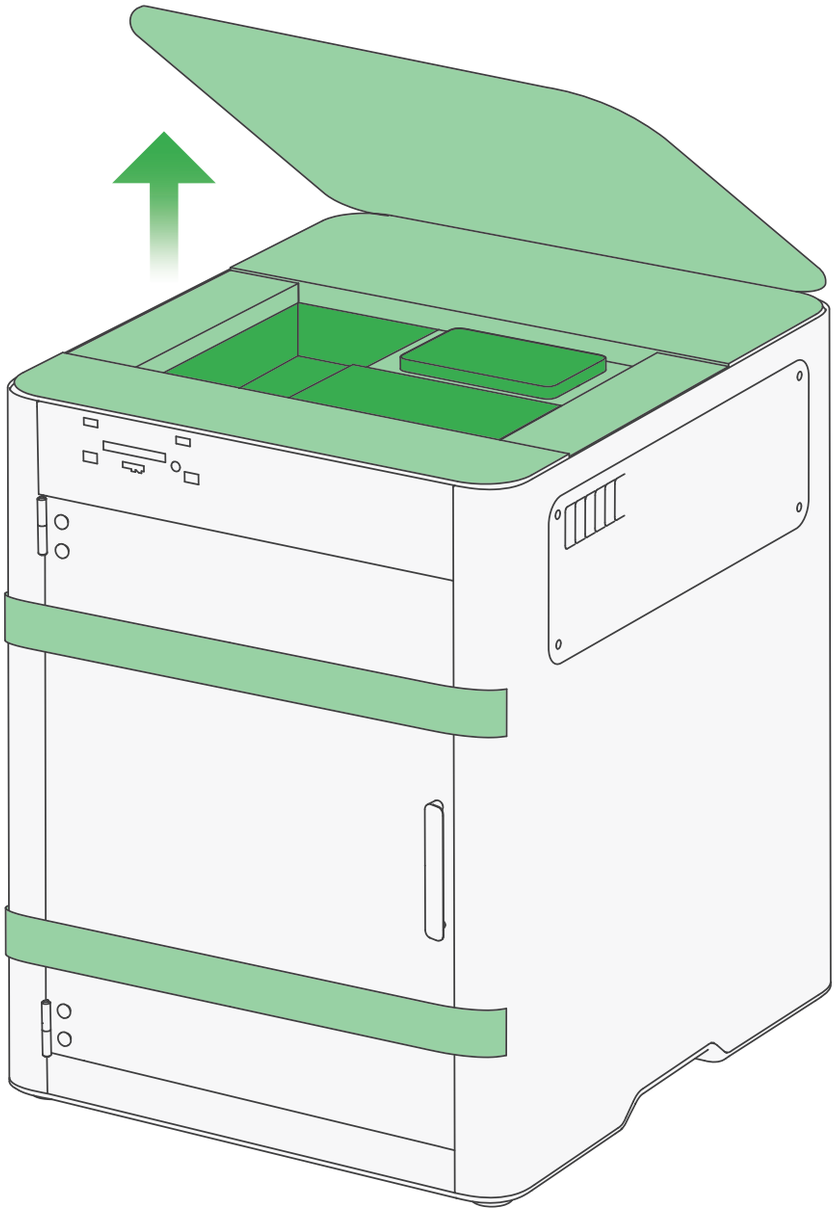
2) Pull the moisture-proof bag down over the four corners of the carton base.

## 6.1 Remove the Package



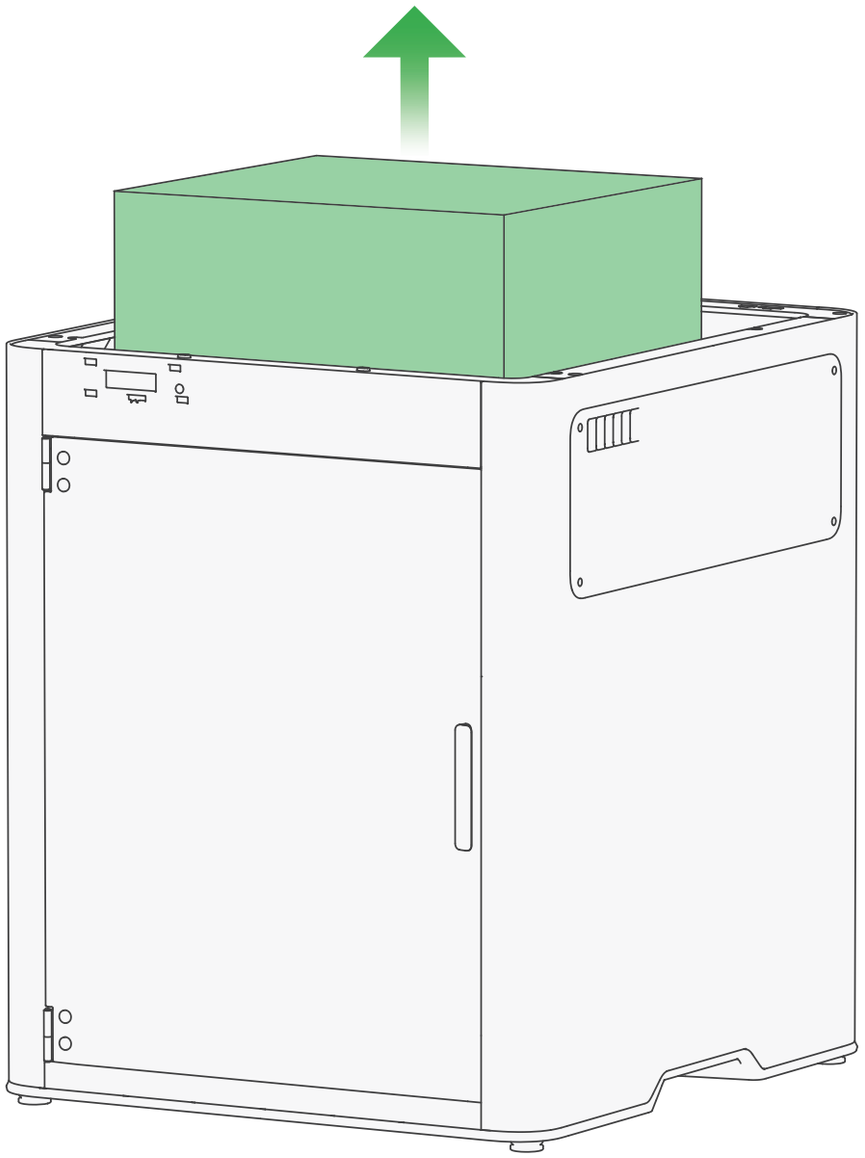

3) Keep the carton base in place. Have two people lift the printer out and place it on the floor or a stable, low surface.

## 6.1 Remove the Package



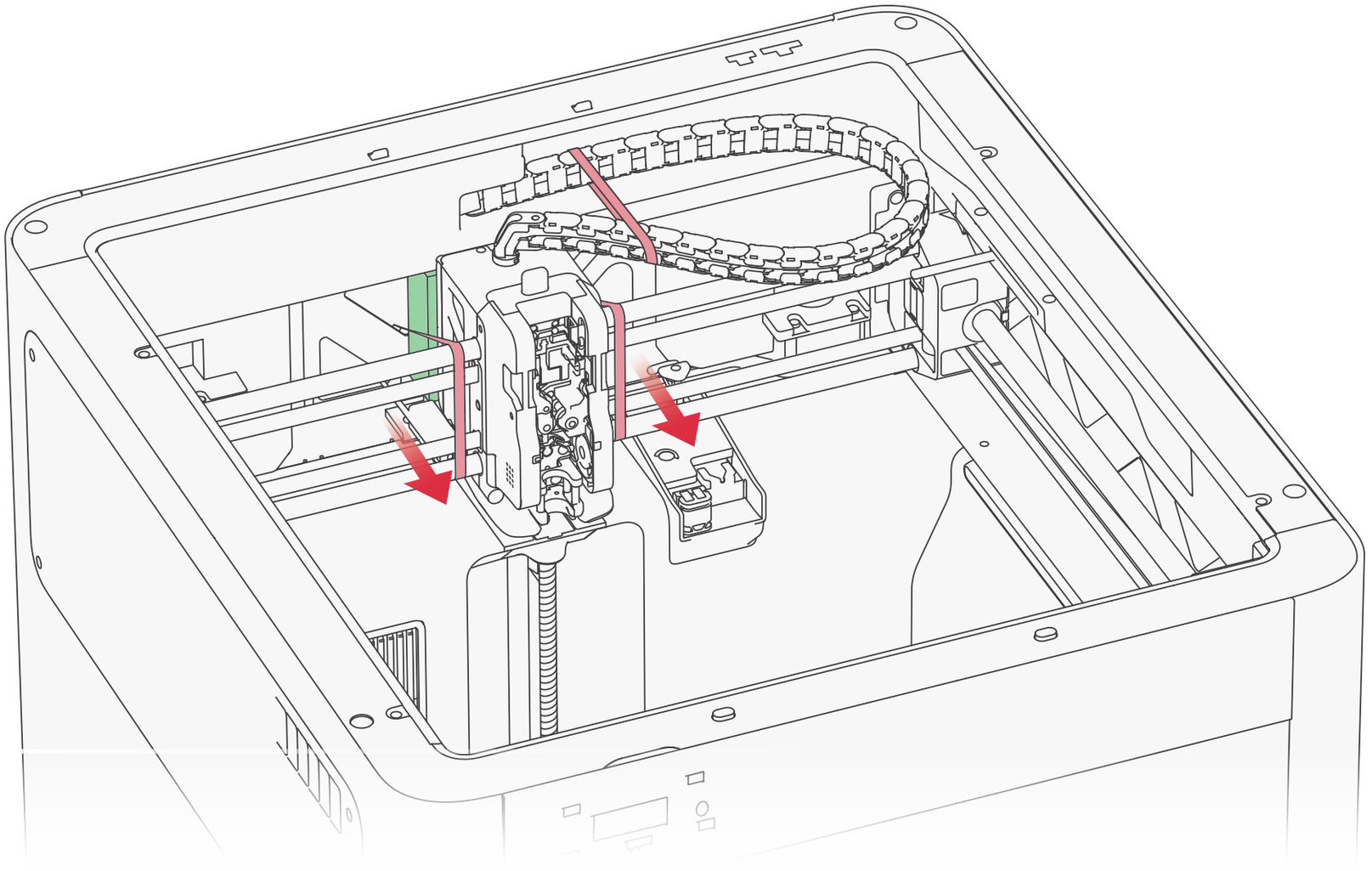
4) Remove all tape and protective film from the printer. Take out the toolbox and all accessories embedded in the top cardboard, then remove the cardboard.

## 6.1 Remove the Package



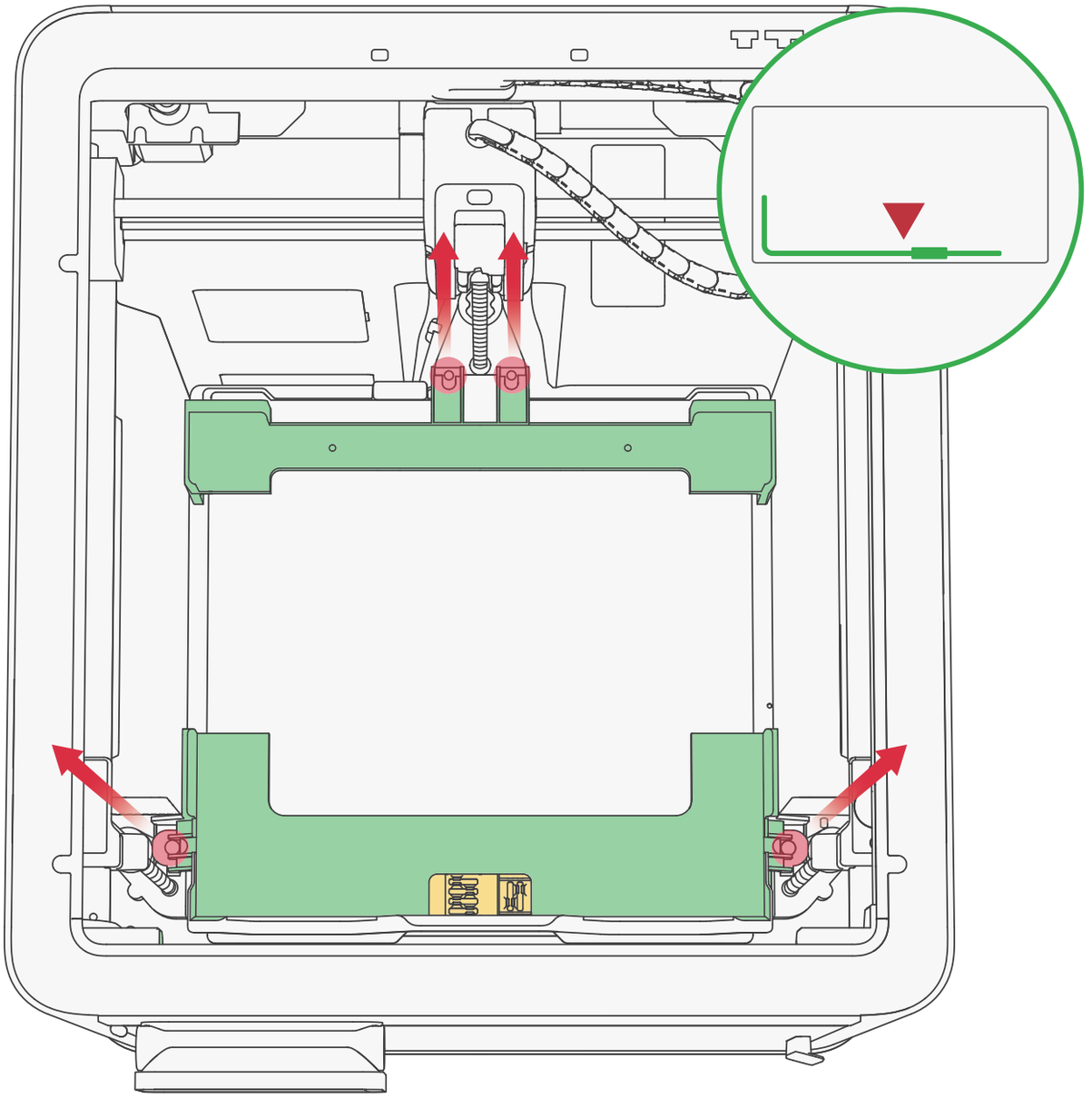
5) Remove the cardboard support from the printer chamber.

## 6.2 Unlock the Toolhead



Cut and remove all zip ties from the toolhead and linear rods. Pull the toolhead toward the front door to remove the foam from behind it, then push the toolhead back to the rear of the chamber.

## 6.3 Unlock the Heatbed

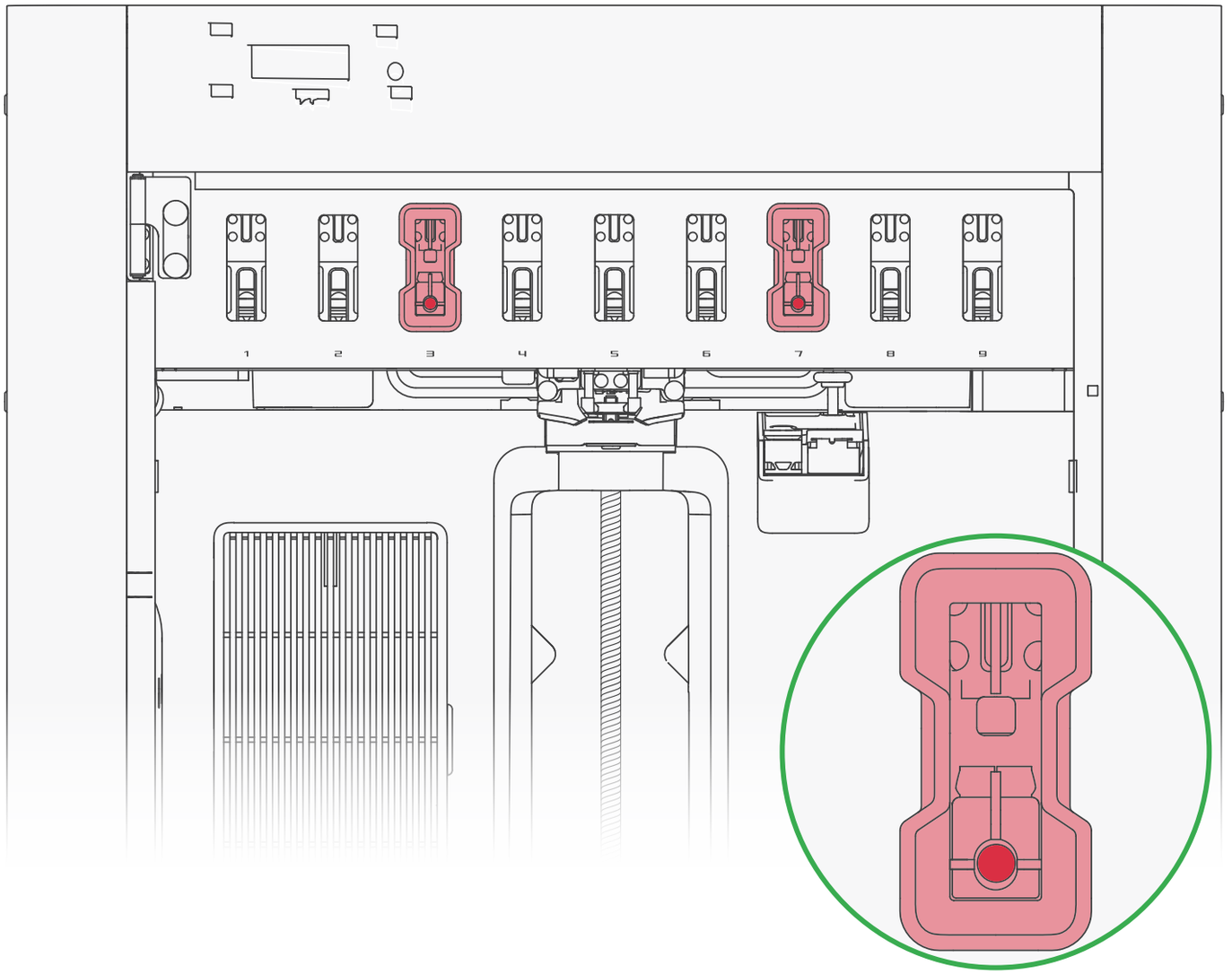


Use the H2.0 Allen key from the toolbox to remove the 4 red-marked screws, then take out the green-marked transport fixtures as illustrated. Store the screws in the yellow-marked area on the fixture as shown.

Remove the foam under the heatbed after the initial calibration is complete.

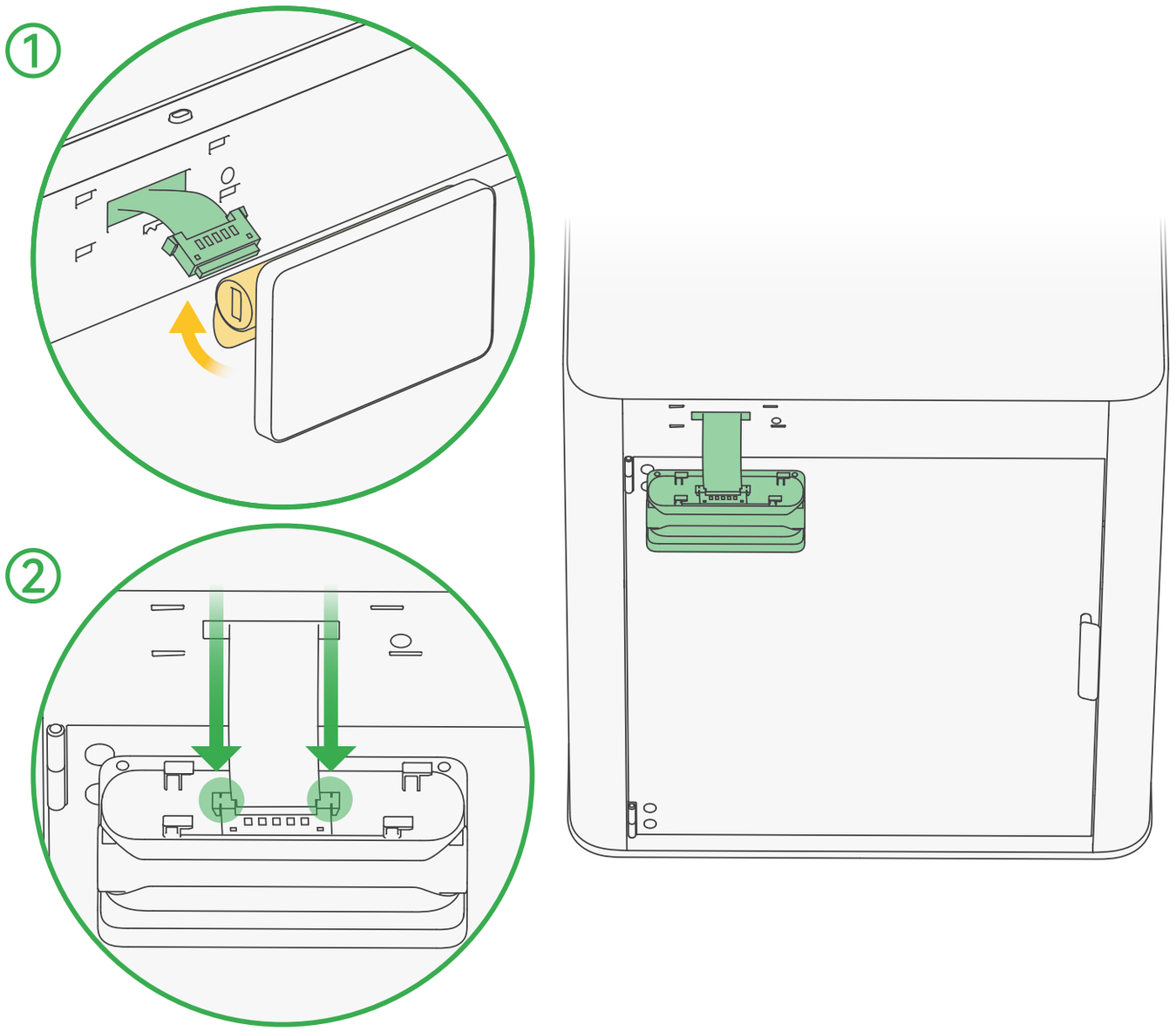
The magnet on the H2.0 Allen key holds the screws to prevent them from falling during operation. Do not remove the magnet.

## 6.4 Unlock the SwapTek Rack



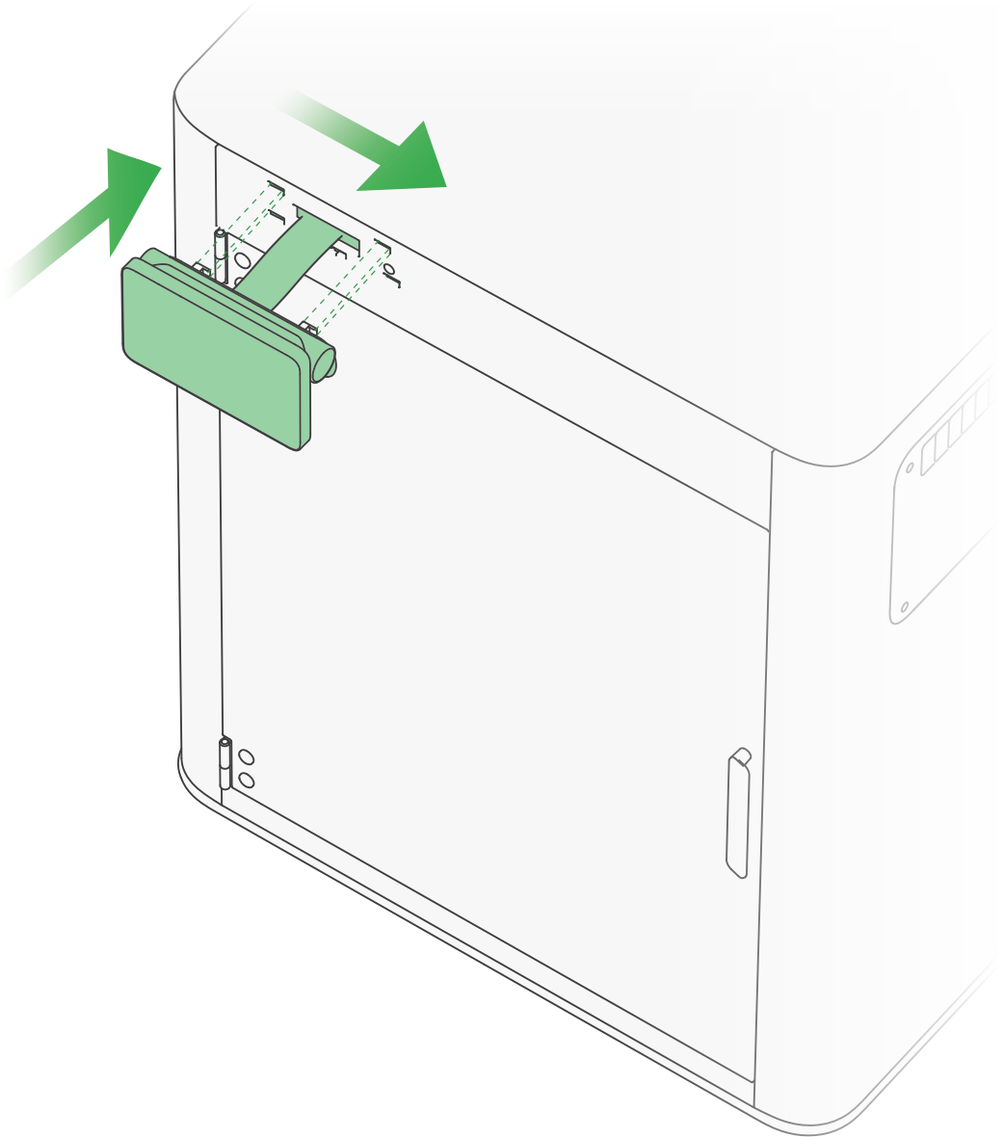

Open the front door. Use the H2.0 Allen key to remove the 2 screws, then take out the 2 red retainers.

## 6.5 Install the Touchscreen



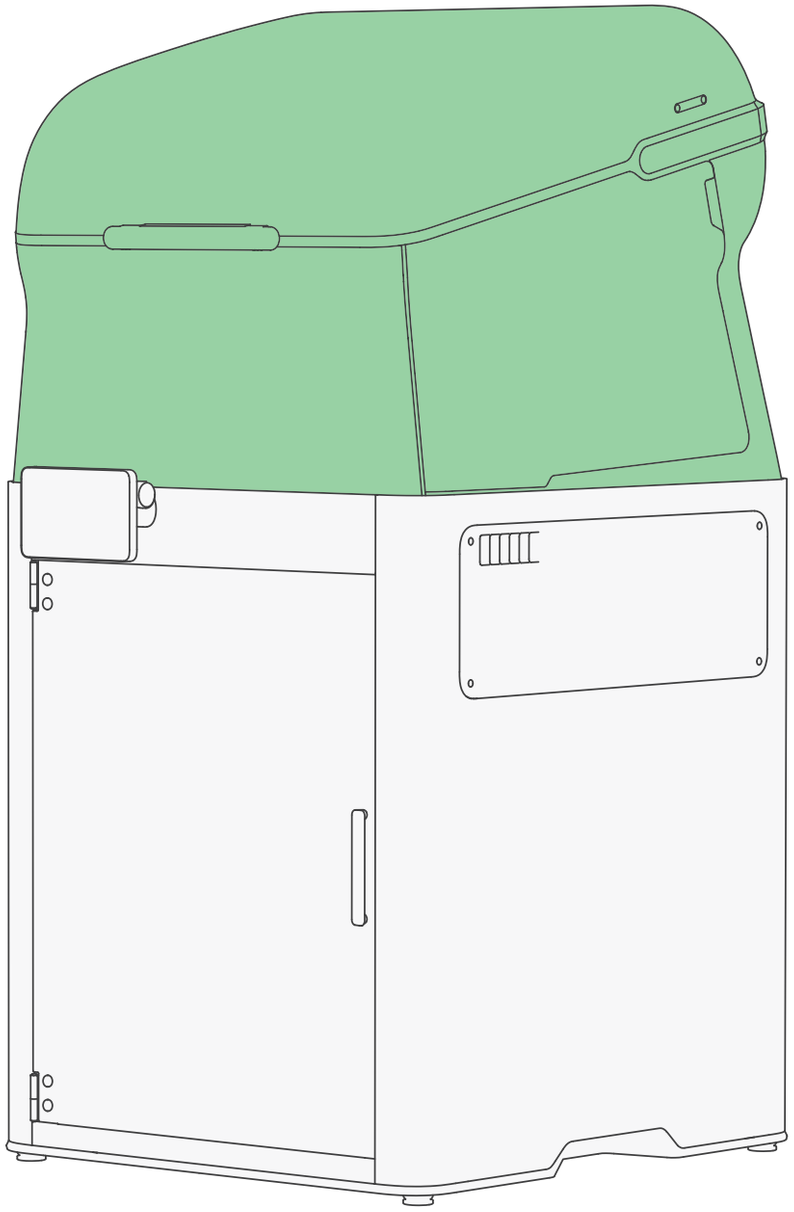

1) Remove the tape securing the flexible cable. Take the touchscreen and orient it with the USB port towards the left side, then rotate the rear hinge upward until the screen port is fully exposed.
2) Insert the flexible cable into the screen port.
   Do not pull the cable forcefully, as this may cause damage.

## 6.5 Install the Touchscreen



3) Tuck the flexible cable back into the printer slot, then align the touchscreen with the holes and insert it. Push the screen hinge to the right until you hear a click.
Gently wiggle the touchscreen. If it does not feel loose, it is installed correctly.

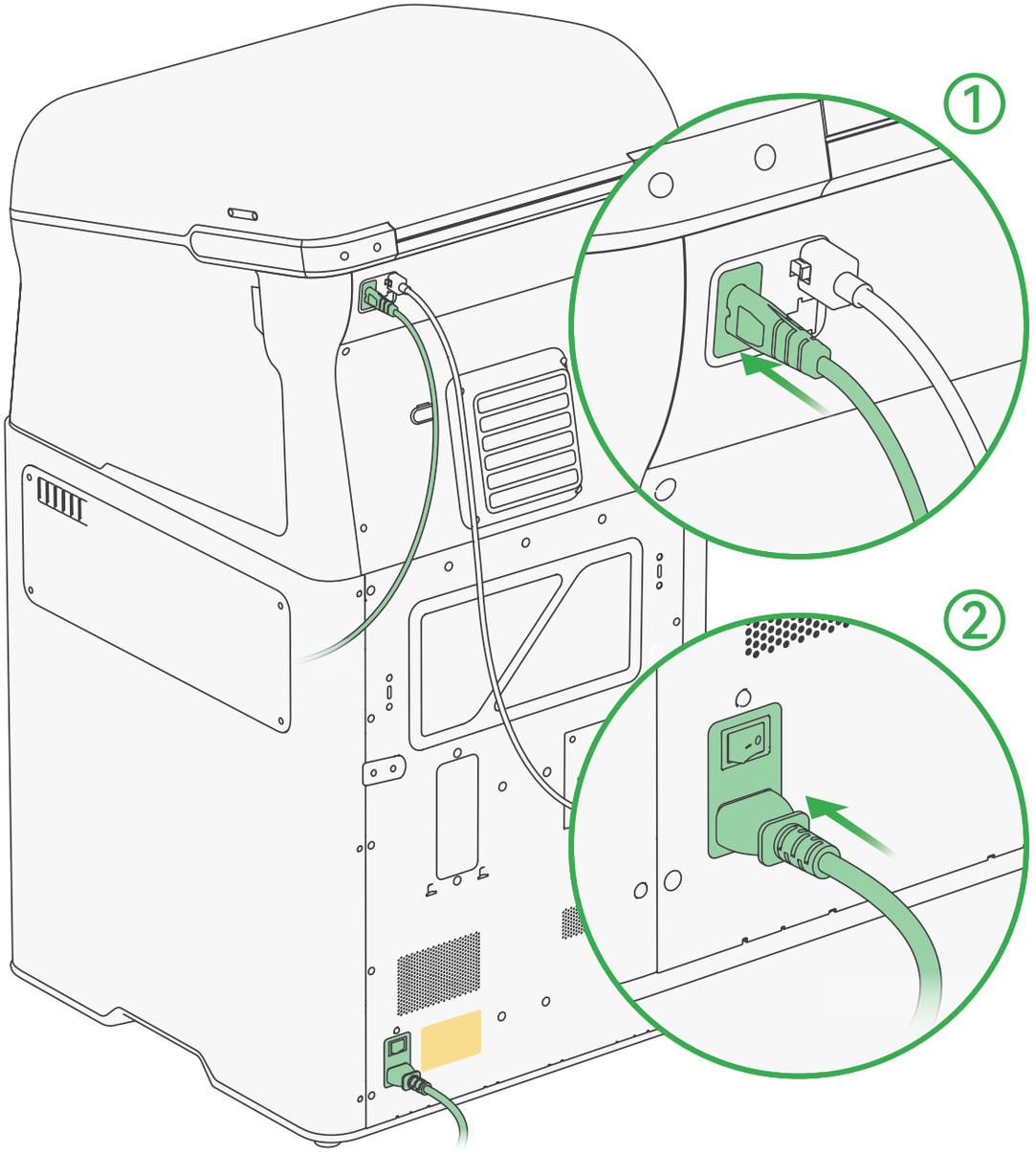
## 6.6 Install the AMS 3H



The printer must be used with the AMS 3H. Before connecting the power cord and turning on the printer, follow the AMS 3H Quick Start Guide to install the AMS 3H.

Keep the toolbox and remaining accessories for installing the AMS 3H later.

## 7. Plug in the Power Cord and Power On



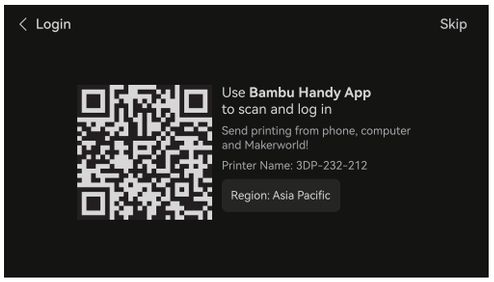

1) Plug one end of the AMS dryer module power cord into the AMS 3H and the other end into a power outlet.
2) Ensure the voltage specified on the label near the printer power socket matches the local voltage. Then connect the power cord and turn on the power switch.

# 8. Bind the Printer - Bambu Handy

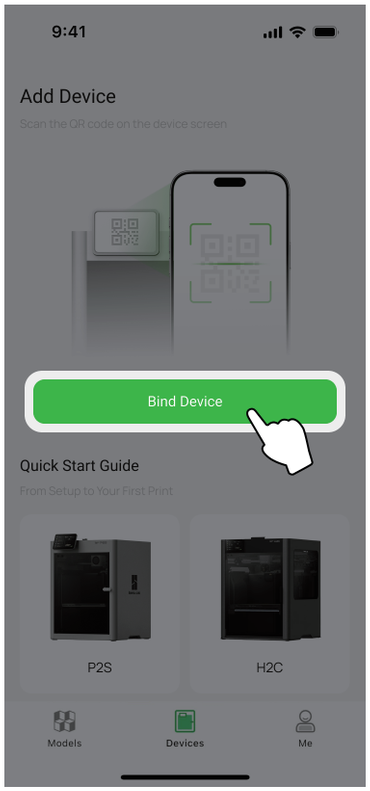
1) Scan the QR code on the right to download Bambu Handy. Register and log in to your Bambu Lab account.

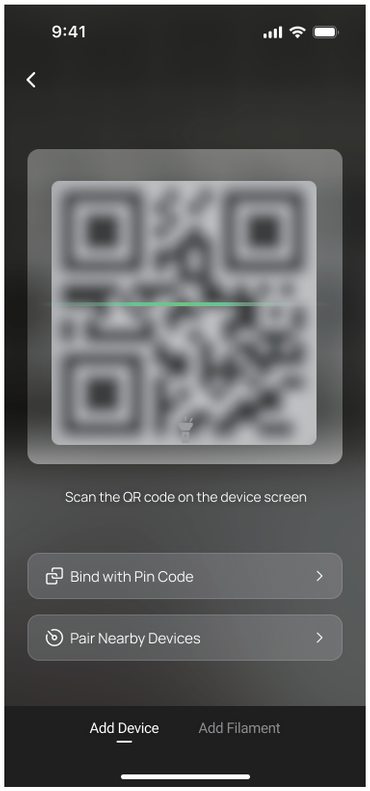


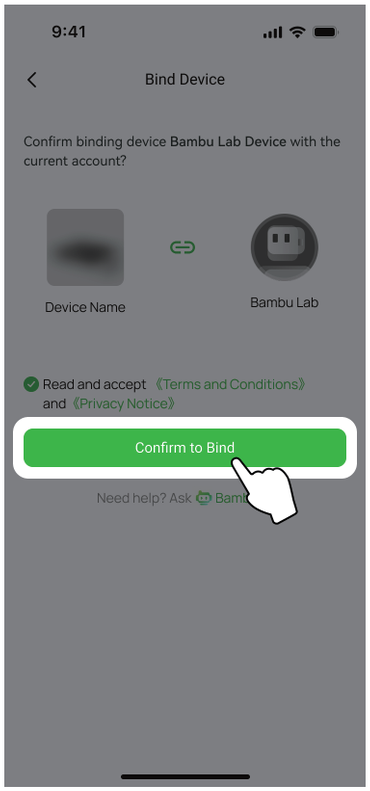

2) Follow the instructions on the screen until a QR code appears.




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



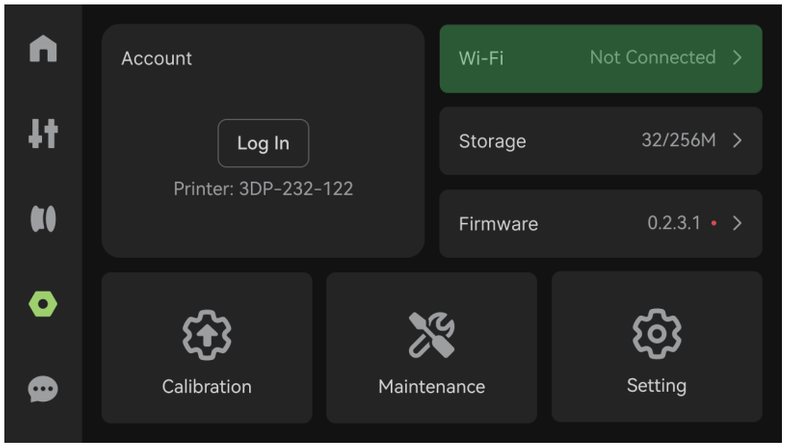



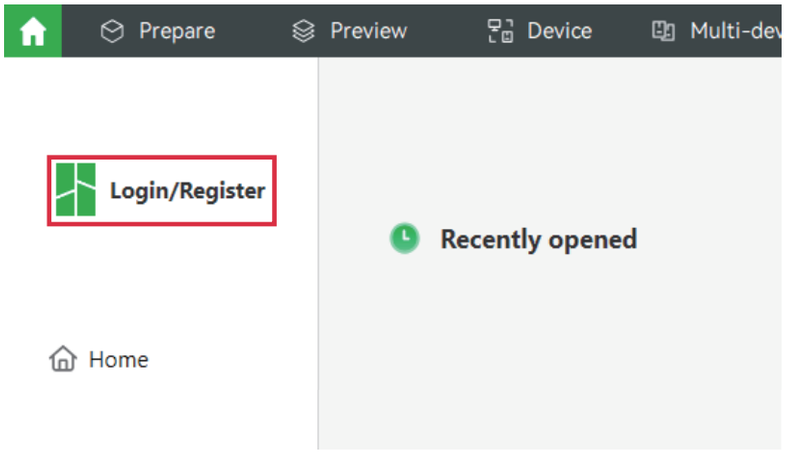

4) Follow the instructions on the screen to complete the initial calibration. It is normal to have vibration and noise during the process.

5) After the initial calibration is complete, remove the foam from under the heatbed.

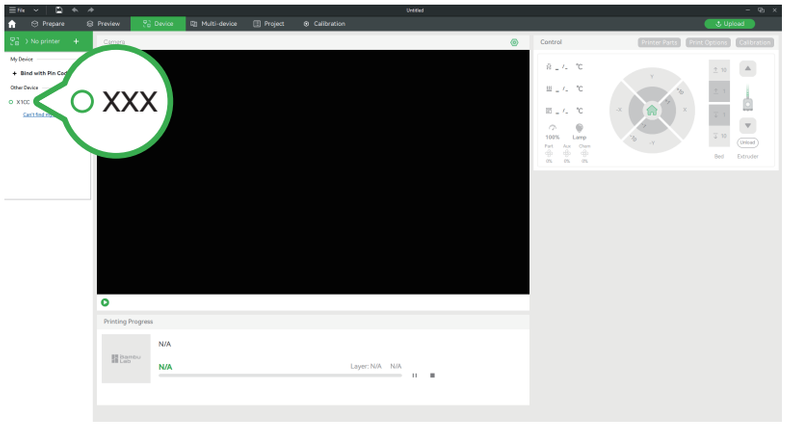
# 9. Bind the Printer - Bambu Studio




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.

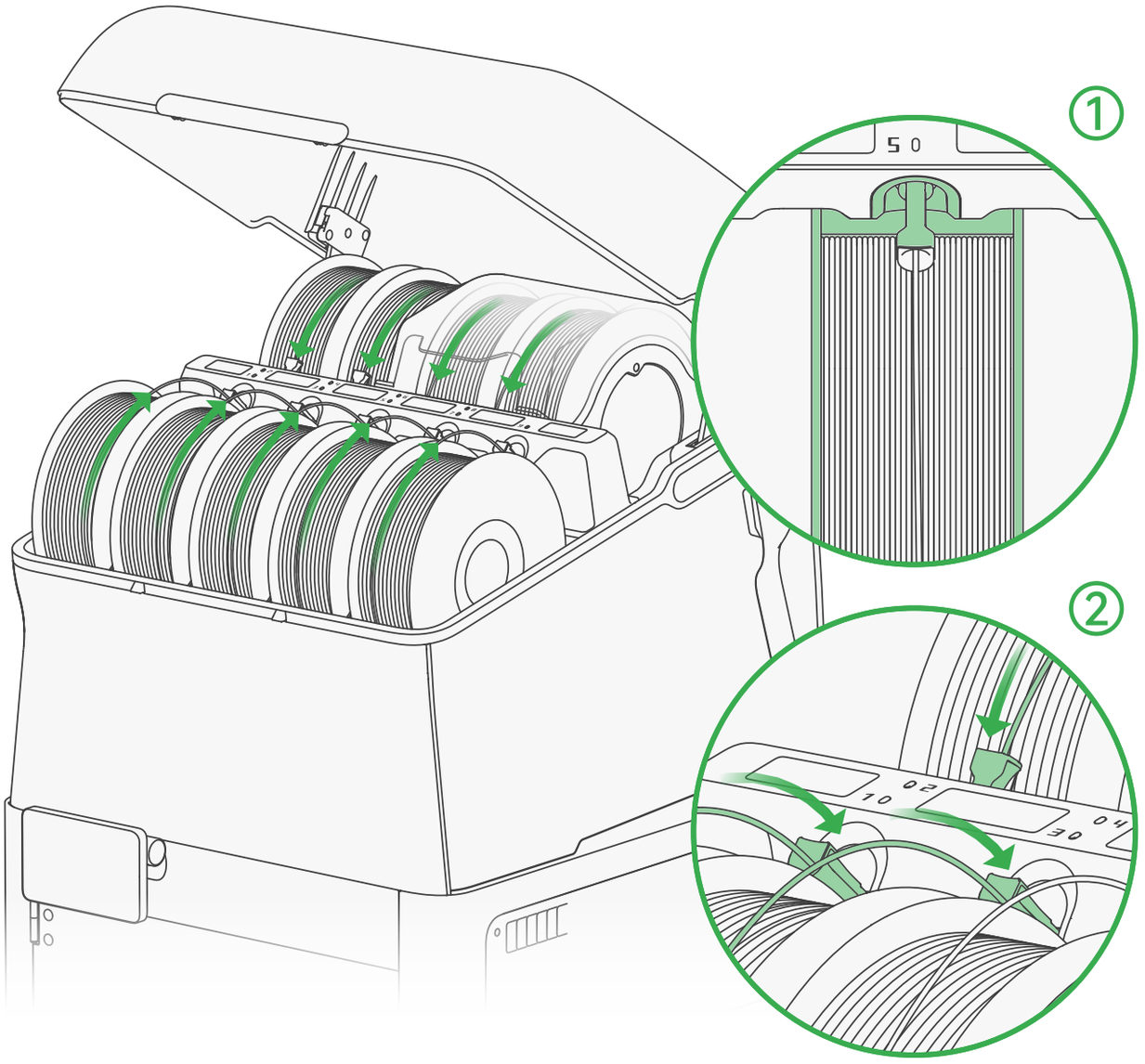



2) Visit the link below to download and install Bambu Studio. Register and log in to your Bambu Lab account.
bambulab.com/download/studio

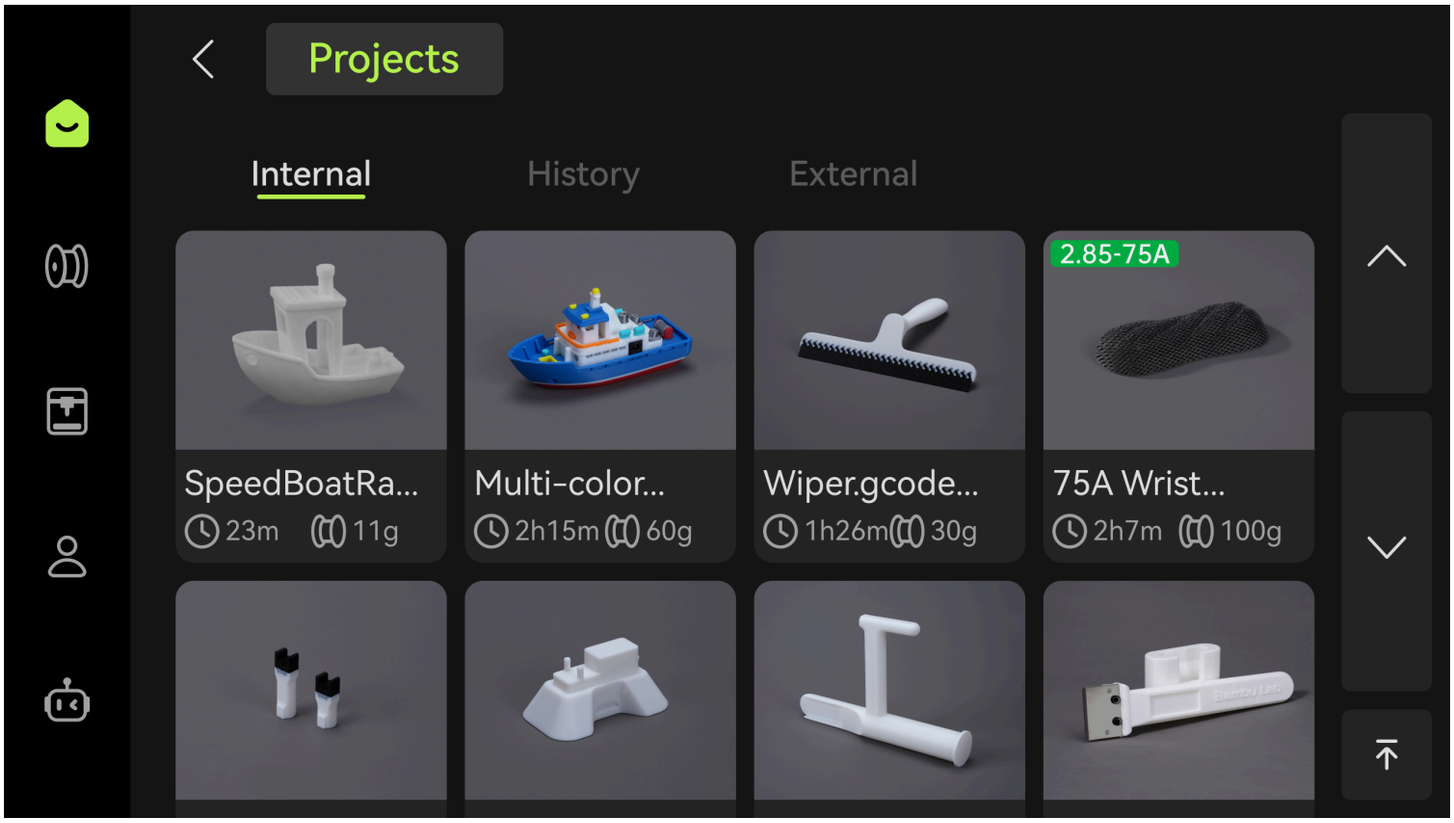



3) Click “+” on the device page, and Bambu Studio automatically discovers printers on the same network. Click the detected printer to bind it to your Bambu Lab account.

## 10. Load Filament



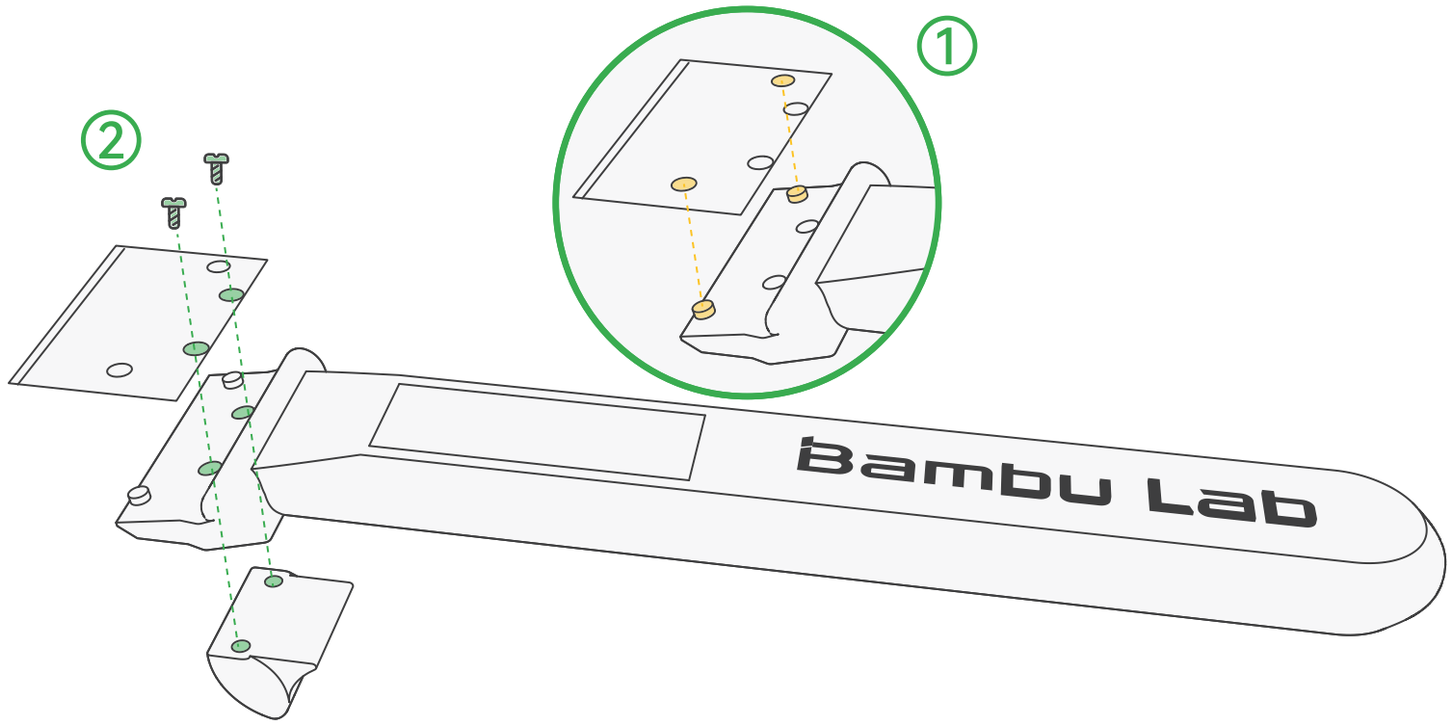

1) Power on the printer and place a spool of filament in any slot. Ensure the spool is correctly placed in the spool slot.
2) Insert the filament at least 70 mm into the feeding funnel. The AMS will pre-load it after it is detected. When the corresponding LED light is on, the AMS 3H is ready to print.




Tap - File, select a model, and follow the on-screen instructions.

* The included textured PEI plate is sensitive to dirt and oil. If you touch the plate, oil from your hands may reduce adhesion. Wash the plate with hot water and dish soap before printing to ensure optimal adhesion.

## 12. Assemble the Scraper (Optional)



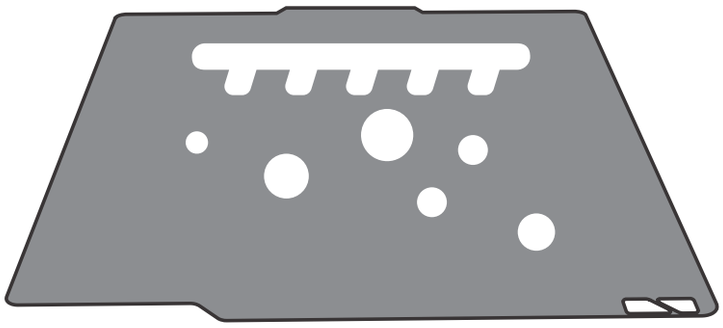

The scraper helps remove models and clean the prime line. We recommend this built-in model for your first print.

1) Print the scraper handle, then snap the blade onto the raised section of the handle.
   If the blade does not snap into place, it is facing the wrong way. Flip it over and try again. Make sure the blade is installed in the correct orientation. Otherwise, it may come loose during use and cause personal injury.
2) Align the screw holes in the blade, handle, and finger rest block. Use the H2.0 Allen key to tighten the 2 screws.
   The blade is sharp. Handle it with care during assembly to avoid cuts. Keep the scraper out of reach of children.

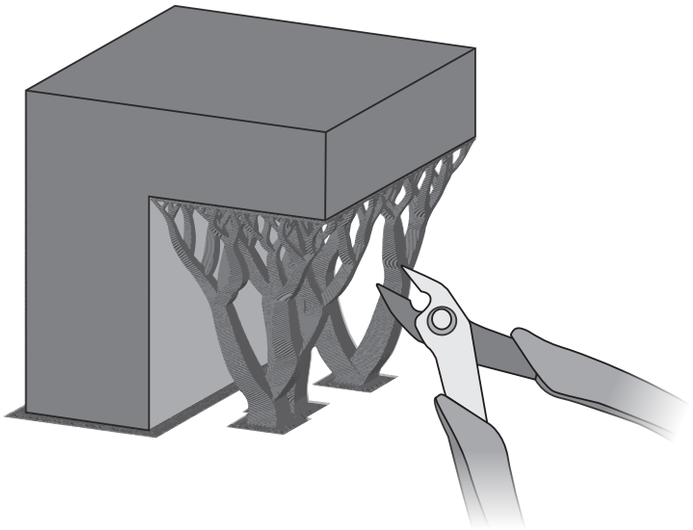
## 13. After-Print Notes



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.

## 14. Printer 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.
- Apply lubricant oil to linear rods and idler pulleys.
- Apply lubricant grease to lead screws and extruder gears.
- Apply grease for toolhead to the FlexFeed cam and ToolLock pin on the toolhead.

**Consumables:**

- Inspect the filament cutter and all plastic and rubber parts for signs of wear, deformation, or aging.
- Replace consumable parts as needed, such as the nozzle wiping pad, FEP/PTFE tubes, and flow blocker pads. Cut replacement FEP/PTFE tubes to the original length. Tubes that are too long or too short may affect printing.

**Hotend:**

Regularly use a brush to grip a nozzle cleaning sponge dipped in water to remove any filament stuck on the hotend surface to ensure optimal print quality.

**Other components:**

- Check camera lenses, fans, and filament sensors for dust or debris.
- Clean fans regularly: gently clean camera lenses using a microfiber cloth dipped in isopropyl or dehydrated alcohol for optimal clarity.

e.bambulab.com/bambulabh3c-maintenance

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

## 15. Printer Specifications

| | |
|---|---|
| **Printing Technology** | |
| Type | Fused Filament Fabrication |
| **Body** | |
| Build Volume (L * W * H) | 330*320*325 mm |
| Enclosure Type | Enclosed |
| Hotend Switching System | Bambu Lab SwapTek™ 9-Tool Switching |
| Chassis | Steel |
| Outer Frame | Plastic |
| **Dimensions and Weight** | |
| Package Dimensions | 600*630*700 mm |
| Product Dimensions | 493*571*587 mm |
| Recommended Installation Space | 593*1056*1306 mm |
| Net Weight | 36.28 kg (including the AMS 3H) |
| **Toolhead** | |
| Extruder Gear | Hardened Steel |
| Included Nozzle Material | Hardened Steel |
| Max Nozzle Temperature | 350 °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 into the PrintTool |
| Expansion Options | Supports the CraftTool (CutTool, DrawTool, and more coming) |
| Supported Filament Diameter | 1.75 mm, 2.85 mm (Bypass feed only) |
| Extruder Motor | Bambu Lab high-precision brushless servo motor with planetary gearbox |
| **Heatbed** | |
| Build Plate Material | Flexible Steel Plate |

## 15. Printer Specifications

| | |
|---|---|
| Included Build Plate Type | Textured PEI Plate |
| Supported Build Plate Type | Textured PEI Plate, Cool Plate SuperTack, Engineering Plate |
| Max Heatbed Temperature | 120 °C |
| **Speed** | |
| Max Speed of Toolhead | 1,400 mm/s |
| Max Acceleration of Toolhead | 25,000 $mm/s^2$ |
| 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** | |
| HEPA Filter Grade | H11 |
| Activated Carbon Filter Type | Granulated Coconut Shell |
| VOC Filtration | Excellent |
| Particulate Matter Filtration | Supported |
| **Cooling** | |
| Part Cooling Fan | Closed Loop Control |
| Hotend Cooling Fan | Closed Loop Control |
| Main Control Board Fan | Closed Loop Control |
| Chamber Heat Circulation Fan | Closed Loop Control |
| Auxiliary Part Cooling Fan | Closed Loop Control |
| Exhaust Fan | Closed Loop Control |
| **Filaments Supported** | |
| PLA, PETG, PCTG, TPU, EVA, PE, PP, PHA | Supported |

## 15. Printer Specifications

| | |
|---|---|
| PVA, BVOH, support filament | Supported |
| Carbon/glass fiber reinforced: PLA, PETG | Supported |
| ABS, ASA, HIPS, PA, PAHT, PC, PET, PPA, PPS<br>Carbon/glass fiber reinforced: ABS, ASA, HIPS, PA, PAHT, PC, PET, PPA, PPS | Supported |
| Filament Drying | Supported |
| **Sensor** | |
| Live View Camera | Built-in; 1920*1080 |
| Toolhead Camera | Built-in; 1920*1080 |
| BirdsEye Camera | Optional; 3264*2448 |
| Door Sensor | Supported |
| Filament Run Out Sensor | Supported |
| Nozzle Clumping Sensor | Supported |
| Filament Odometry[1)] | Supported |
| Power Loss Recovery | Supported |
| **Electrical Requirements[2)]** | |
| Voltage | High-voltage version: 200-240 VAC, 50/60 Hz<br>Low-voltage version: 100-120 VAC, 50/60 Hz |
| Max Power[3)] | High-voltage version: 2250 W @ 220 V<br>Low-voltage version: 1850 W @ 110 V |
| Standby Power | Wi-Fi disconnected: 11.7–12.2 W<br>Wi-Fi connected: 12.2–12.7 W |

## 15. Printer Specifications

| | |
|---|---|
| Steady-State Power | High-voltage version:<br>PLA (25°C): 240 W @ 220 V<br>PC (25°C): 540 W @ 220 V<br>Low-voltage version:<br>PLA (25°C): 240 W @ 110 V<br>PC (25°C): 540 W @ 110 V |
| Low Power Mode[4)] | 1050 W |
| **Environmental Requirements** | |
| Operating Temperature | 10 °C - 30 °C |
| **Electronics** | |
| Touchscreen | 5-inch 854*480 touchscreen |
| Storage | Built-in 64 GB EMMC and USB port |
| Control Interfaces | Touchscreen, mobile App, PC App |
| Motion Controller | Single-core Cortex-M4 and single-core Cortex-M7 |
| Application Processor | Quad-core ARM with dedicated NPU |
| **Software** | |
| Slicer | Bambu Studio<br>Supports third-party slicers which export standard G-code, such as Super Slicer, PrusaSlicer and Cura, but certain advanced features may not be support-ed. |
| **Network Control** | |
| Ethernet | Not available |
| Wireless Network | Wi-Fi 6 |
| Network Kill Switch | Not available |
| Removable Network Module | Not available |
| 802.1X Network Access Control | Not available |

## 15. Printer Specifications

| Wi-Fi | |
|---|---|
| Operating Frequency | 2412 - 2472 MHz, 5150 - 5850 MHz (FCC/CE)<br>2400 - 2483.5 MHz, 5150 - 5850 MHz (SRRC) |
| Wi-Fi Transmitter Power (EIRP) | 2.4 GHz: <23 dBm (FCC); <20 dBm (CE/SRRC/MIC)<br>5 GHz Band1/2: <23 dBm (FCC/CE/SRRC/MIC)<br>5 GHz Band3: <30 dBm (CE); <24 dBm (FCC)<br>5 GHz Band4: <23 dBm (FCC/SRRC); <14 dBm (CE) |
| Wi-Fi Protocol | IEEE 802.11 a/b/g/n/ac/ax |

1) For Bambu Lab filament, the initial weight can be read automatically through RFID or entered manually. For third-party filament, enter the initial weight manually.
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 quickly heat the heatbed to the required temperature, the printer will run at maximum power for about 3–5 minutes.
4) If the circuit has limited power capacity, you can enable Low Power Mode. After it is enabled, the total energy use remains unchanged, and the heatbed and chamber will heat up more slowly.

# 16. Technical Support

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

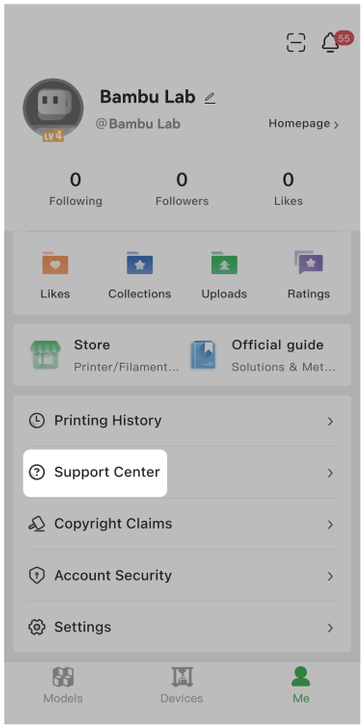
Method 1: Visit the Bambu Lab Wiki for tutorials and maintenance guidance.
wiki.bambulab.com

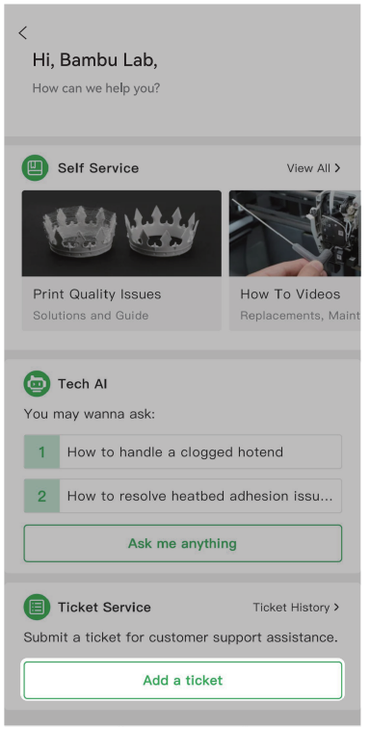
Bambu Lab Wiki

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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