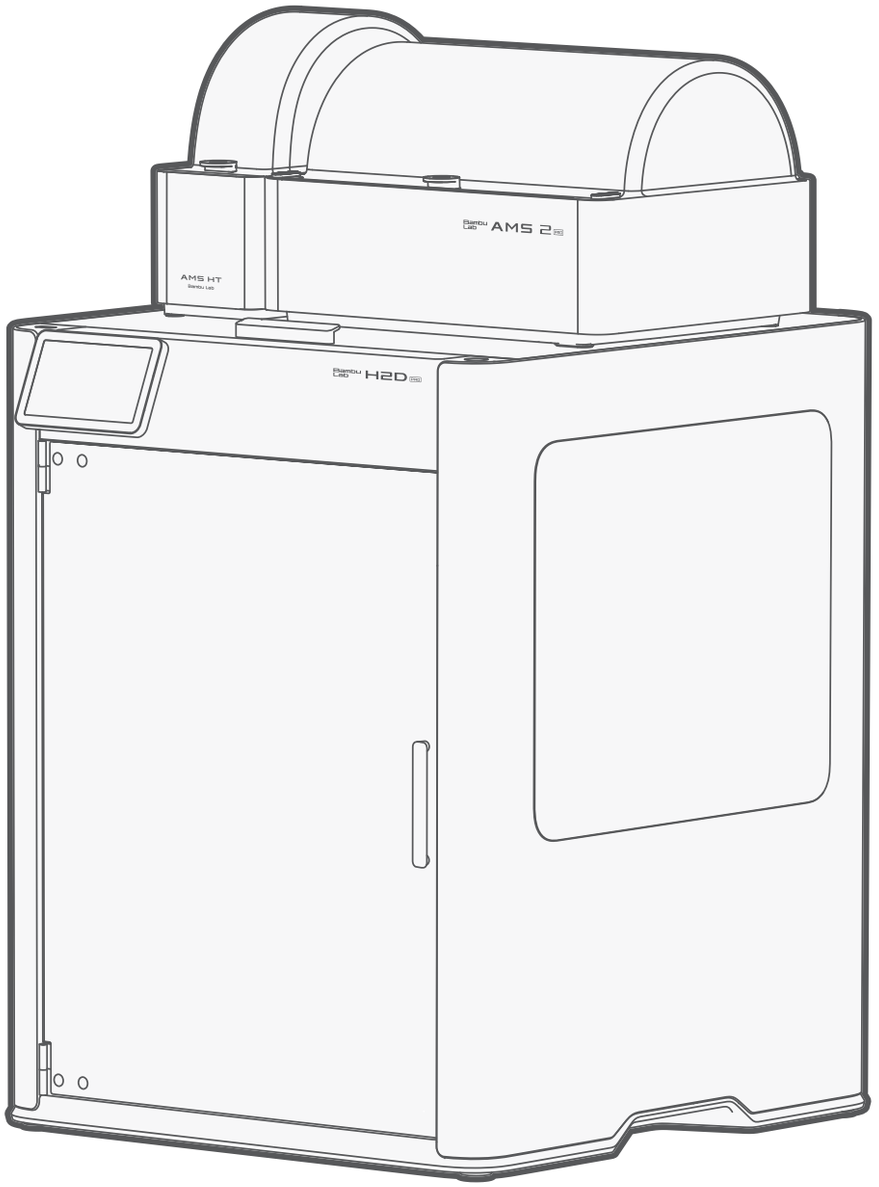
Bambu Lab H2D Pro Combo

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. Two or more people are needed to carry the printer due to its heavy weight.



PF003-E SA007 SA008

Unboxing Guide

Scan the QR code to access our online guides for detailed on how to unbox, assemble, set up the printer and start your first print.

bambulab.com/support/unboxing

Download Bambu Handy and Bambu Studio

Scan the QR code to download Bambu Handy, or visit the link below to download Bambu Studio. You can remotely control your printer and monitor your prints in real time on both your phone or computer.

bambulab.com/download

Explore more cool models

Scan the QR code to visit MakerWorld, our models community, where you can find a variety of free models, and quickly bring your ideas to life using the creativity tools in MakerLab and accessories in Maker's Supply.

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Get help

Scan the QR code to visit our support center, contact technical support, and access more useful tutorials.

bambulab.com/support

Read before use

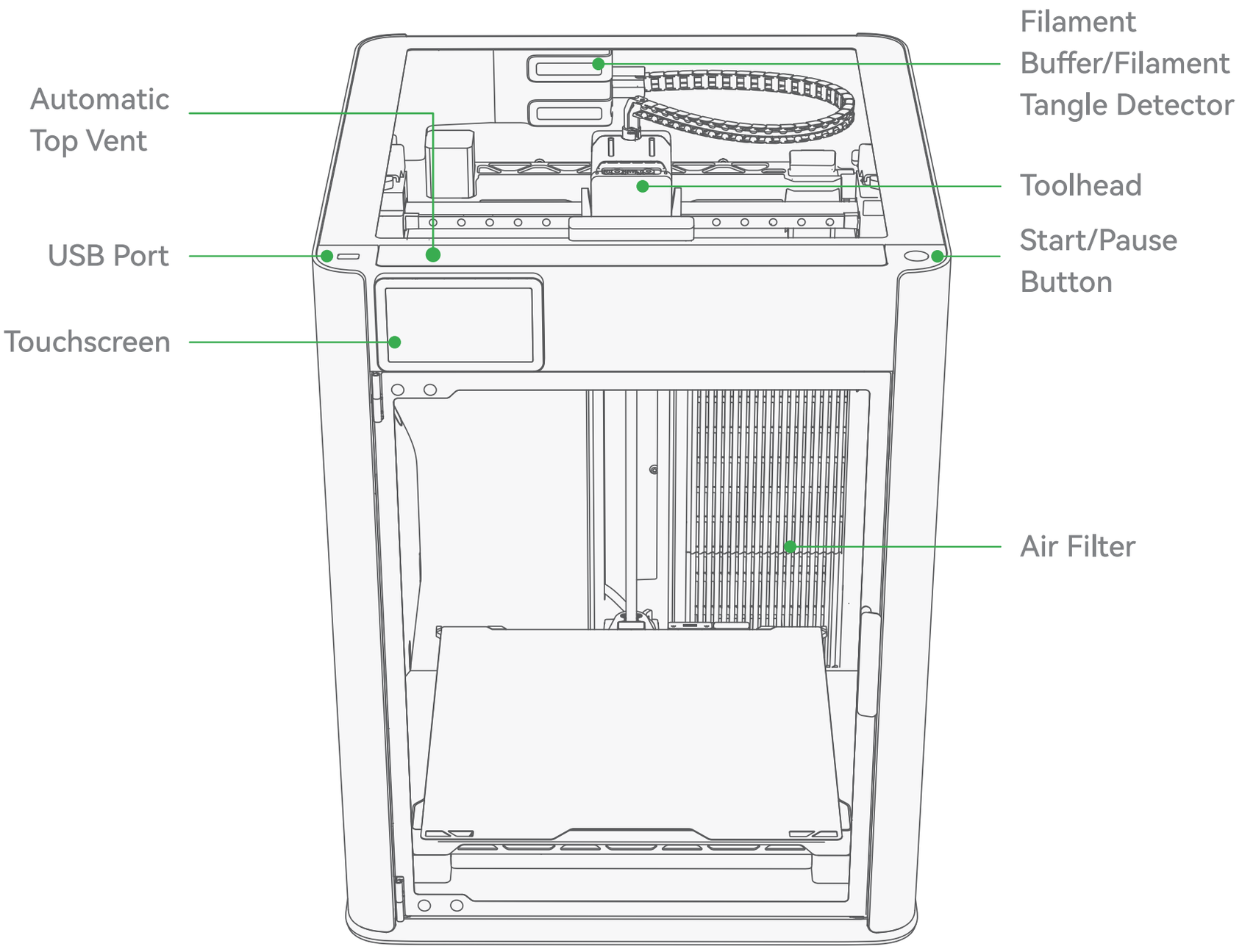
To ensure safety and optimal performance, please follow these guidelines:

- 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 "Specifications" section for details.
- Regular maintenance is essential to keep the printer's complex mechanisms running smoothly. For guidance, see the "Regular Maintenance" section.
- Please use the right hotend to print TPU, and left hotend to print PPS/PPA-CF. For other types of filament, there are no such restrictions. We recommend that you check our Wiki for more information and get a better printing experience.
- The printer automatically switches hotends; please avoid manually switching them to prevent potential damage.
- For best results, we recommend using Bambu filaments, which have been rigorously tested for compatibility, safety, and stability with the AMS 2 Pro and AMS HT.
- To prevent the filament getting stuck, do not print flexible filaments such as TPU with a hardness level that is or below 95A or damp PVA or BVOH with the feeder unit filament inlet of the AMS 2 Pro and AMS HT.
- The AMS 2 Pro and AMS HT support a spool width between 50 mm to 68 mm and a diameter between 197 mm to 202 mm. We recommend using plastic spools. If filaments

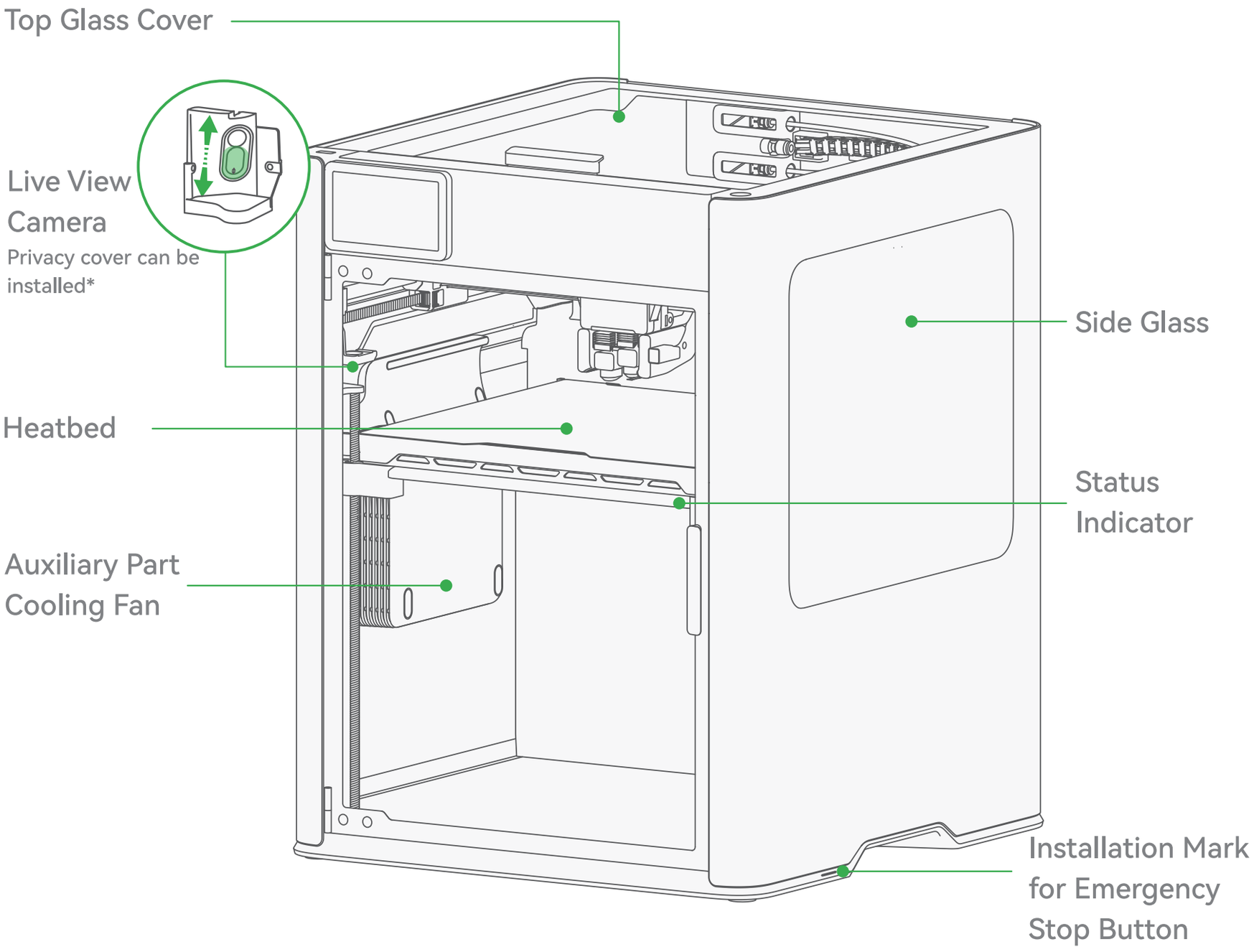
with cardboard spools are used, it is recommended to pair them with a spool adapter to reduce roll slipping and debris.

- You can use the drying function of the AMS 2 Pro using only a 6-pin cable to connect it to an H2 series 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. If using X1 or P1 series printers with one or more AMS 2 Pro units, each unit will require an official Bambu Lab power adapter to power the drying function.
- If you need to use the drying function of the AMS HT, you must connect the provided power cord to it.
- During the filament drying process, the AMS 2 Pro and AMS HT remove moisture through external air circulation via the air inlets. Please ensure the air intake and vent are not blocked, to ensure optimum drying efficiency.

Printer component introduction

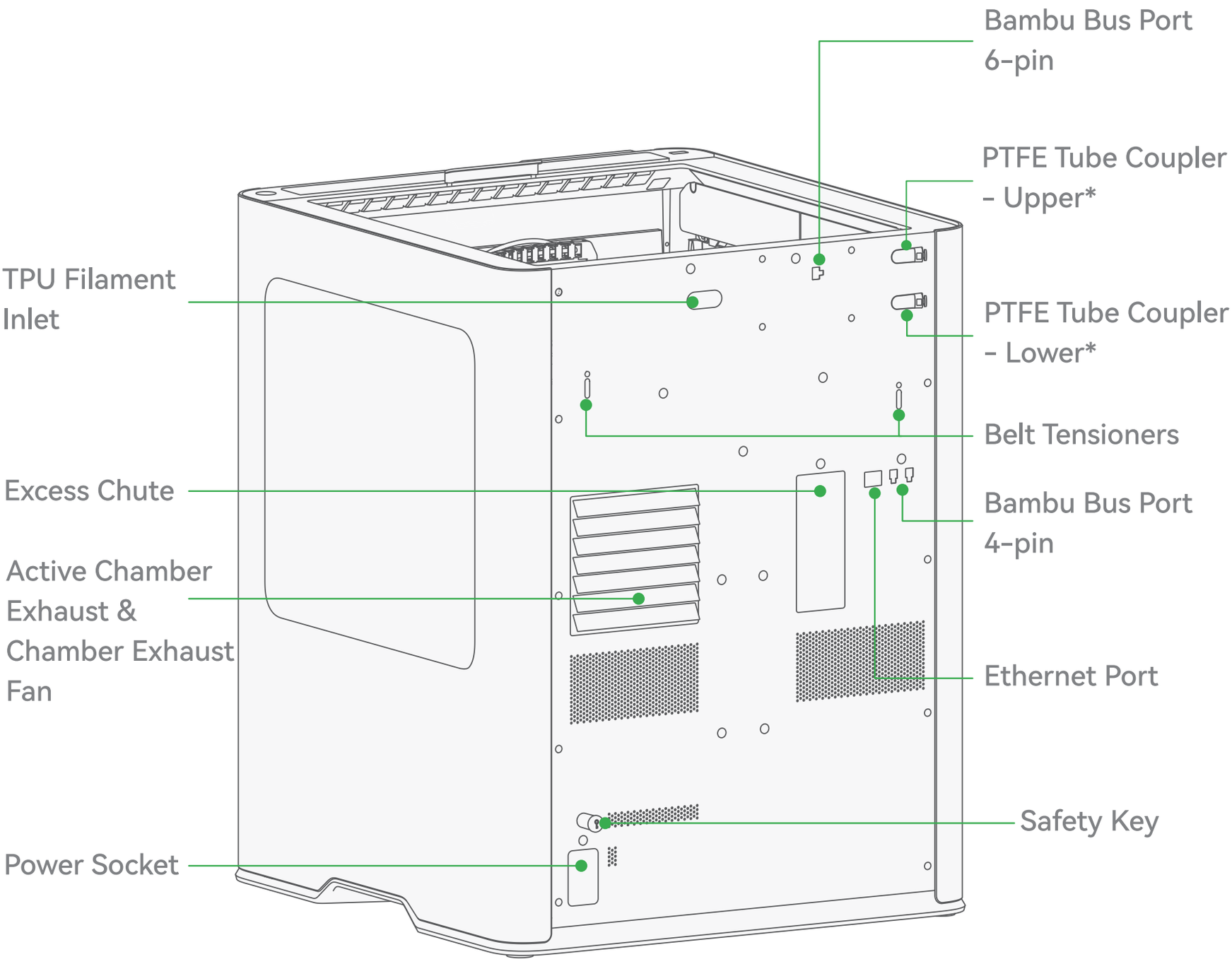


Printer component introduction



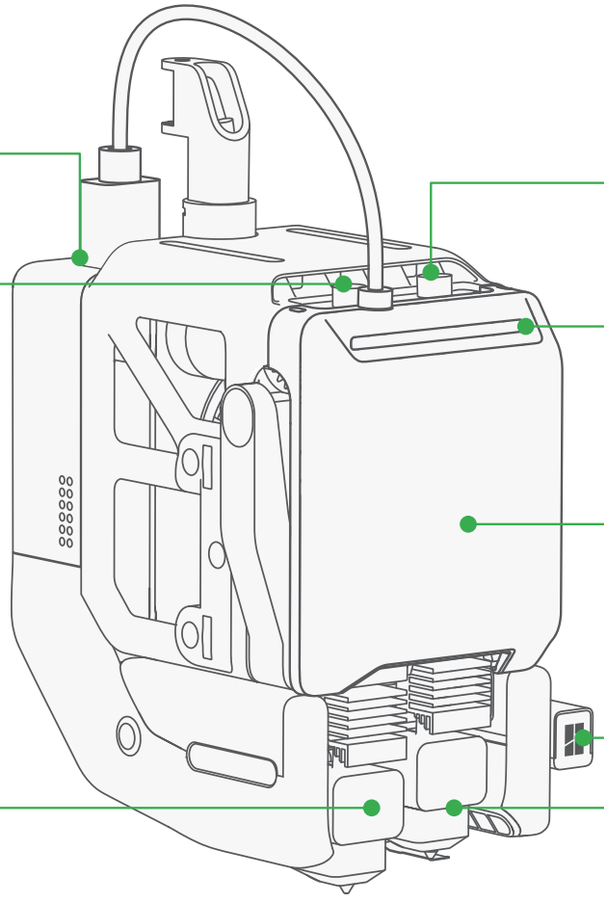
* The privacy cover is in the accessory box. You can install it magnetically on the live view camera.

Printer component introduction



* The upper and lower PTFE tube couplers correspond to different hotends. Connecting the AMS 2 Pro to the **upper coupler** allows the **right hotend** to print in multiple colors. Connecting it to the **lower coupler** allows multi-color printing with the **left hotend**. Using **two AMS 2 Pro units** allows both hotends to support multi-color printing independently.

Toolhead component introduction



Toolhead Interface & Dust-proof Cover

Toolhead Filament Inlet - Left

Toolhead Filament Inlet - Right

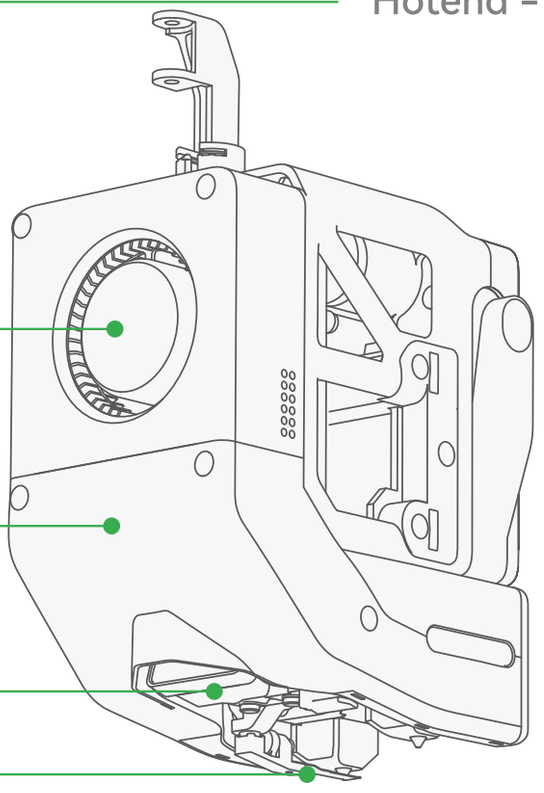
Hotend LED Indicator

Toolhead Enhanced Cooling Fan

Toolhead Camera

Hotend - Left

Hotend - Right



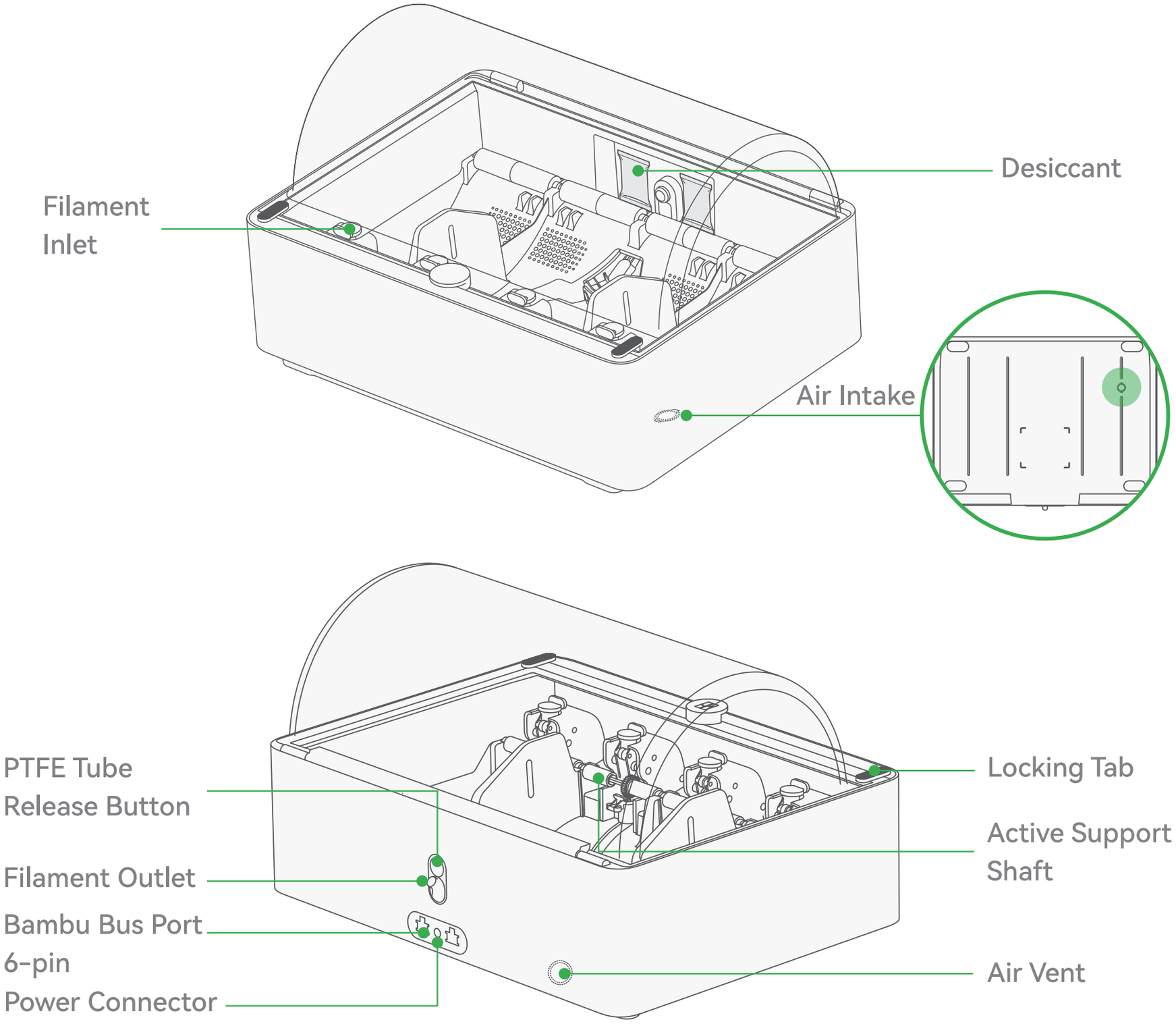
Part Cooling Fan

Part Cooling Fan Air Duct

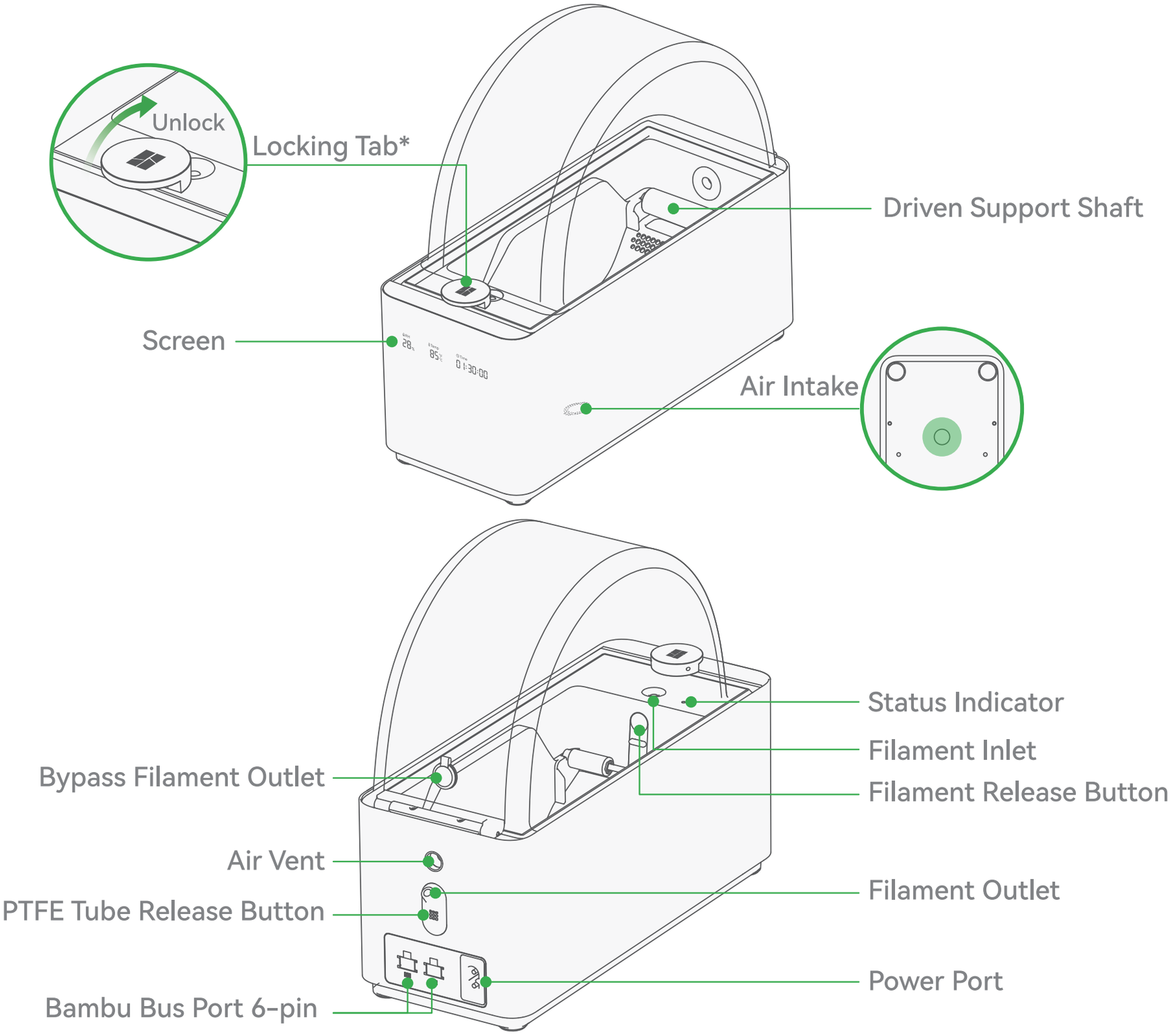
Nozzle Camera

Flow Blocker

AMS 2 Pro component introduction

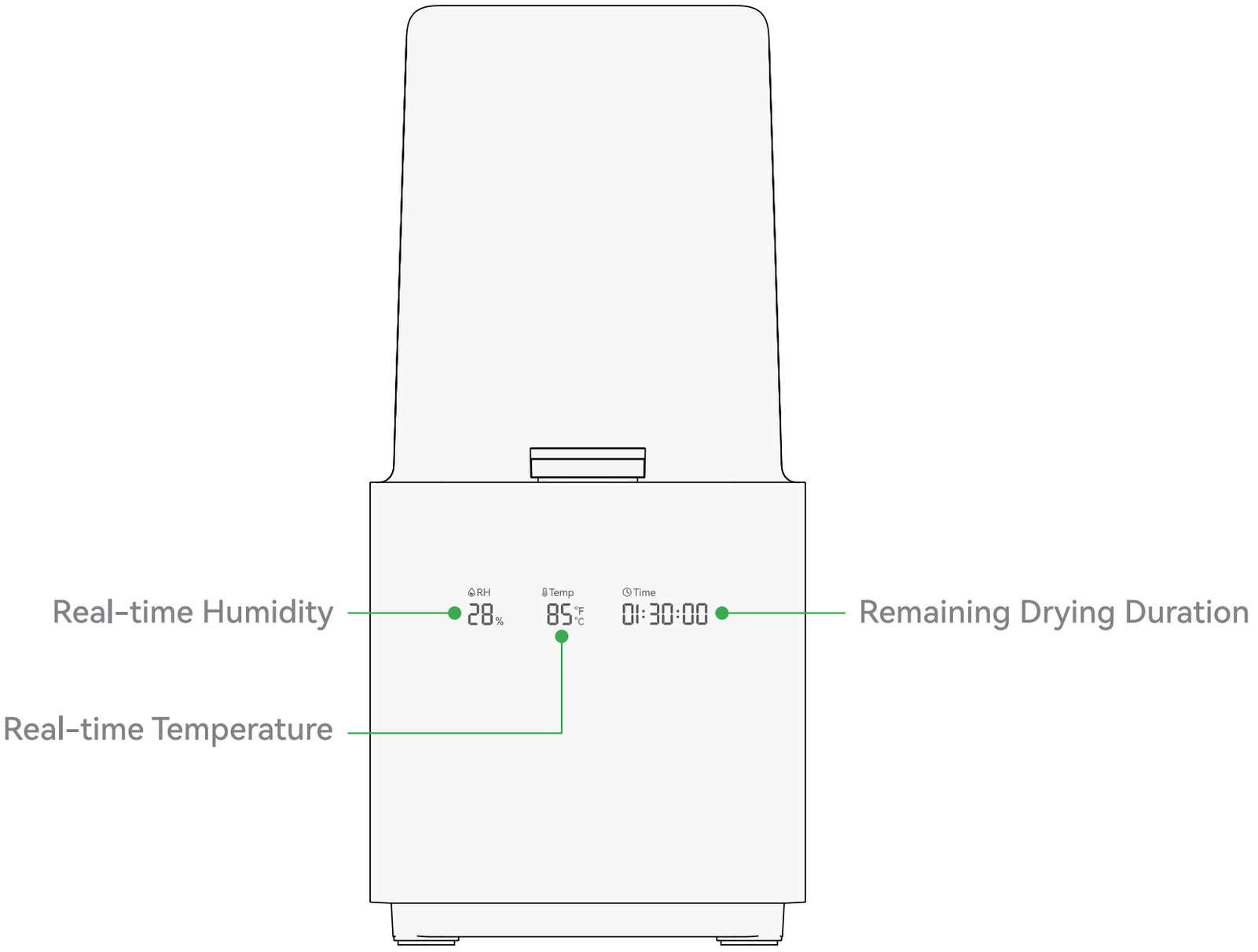


AMS HT component introduction

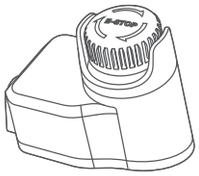


* AMS HT can detect if the top lid is closed. If it is not closed when starting drying, the printer screen will display a message.

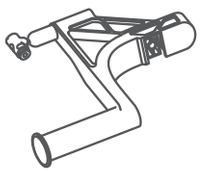
AMS HT component introduction



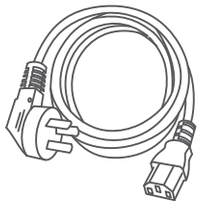
Included accessories



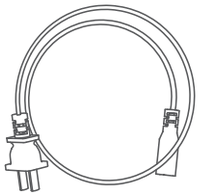
Emergency Stop Button
(Pre-installed with Safety Key)



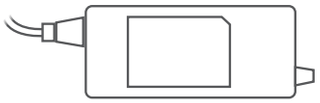
Spool Holder



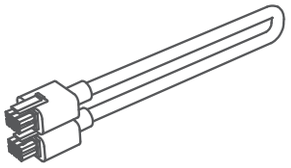
Printer Power Cord



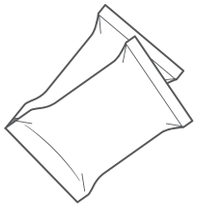
AMS HT Power Cord



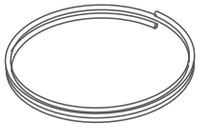
AMS 2 Pro Power Cord



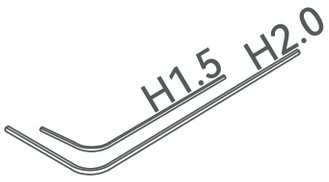
Bambu Bus Cable 6-pin



Desiccant

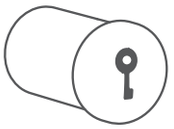


PTFE Tube

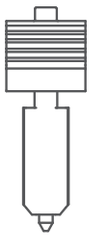


Allen Key H1.5
Allen Key H2.0

Privacy Cover

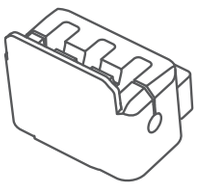


Safety Key



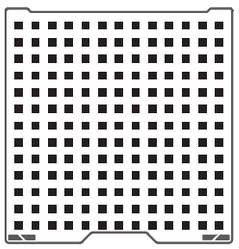
Spare Hotend

Filament Cutter



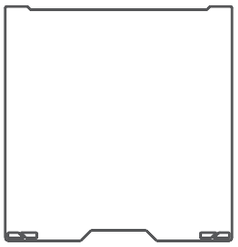
Nozzle Wiping Pad

Flow Blocker

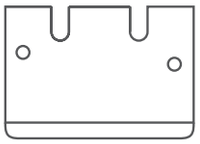


Vision Encoder

Included accessories

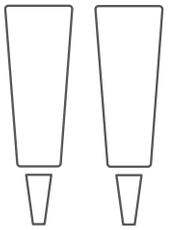


Build Plate
(Pre-installed on heatbed)



Scraper Blade

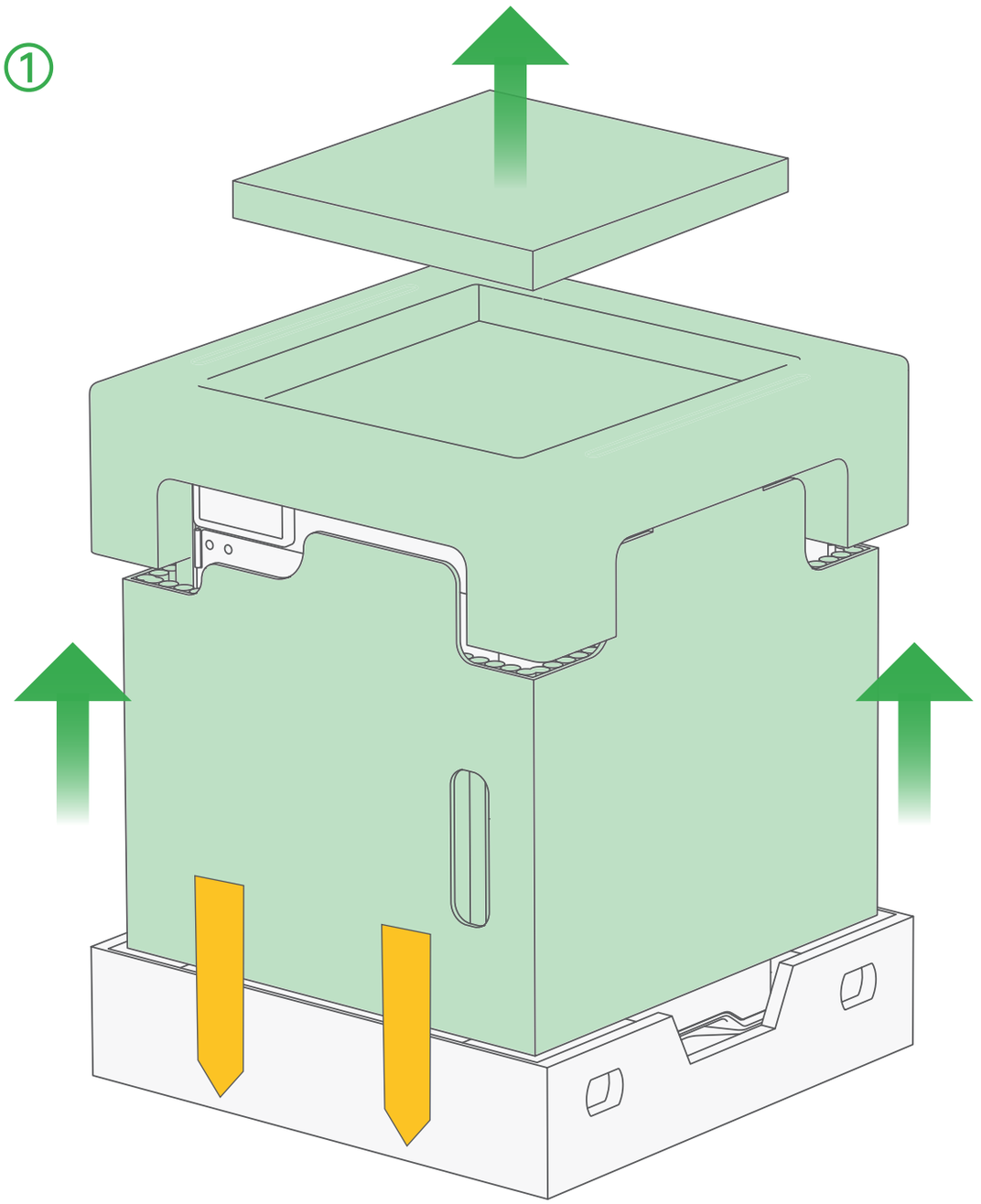
Unclogging Pin



Lubricant Grease & Lubricant Oil

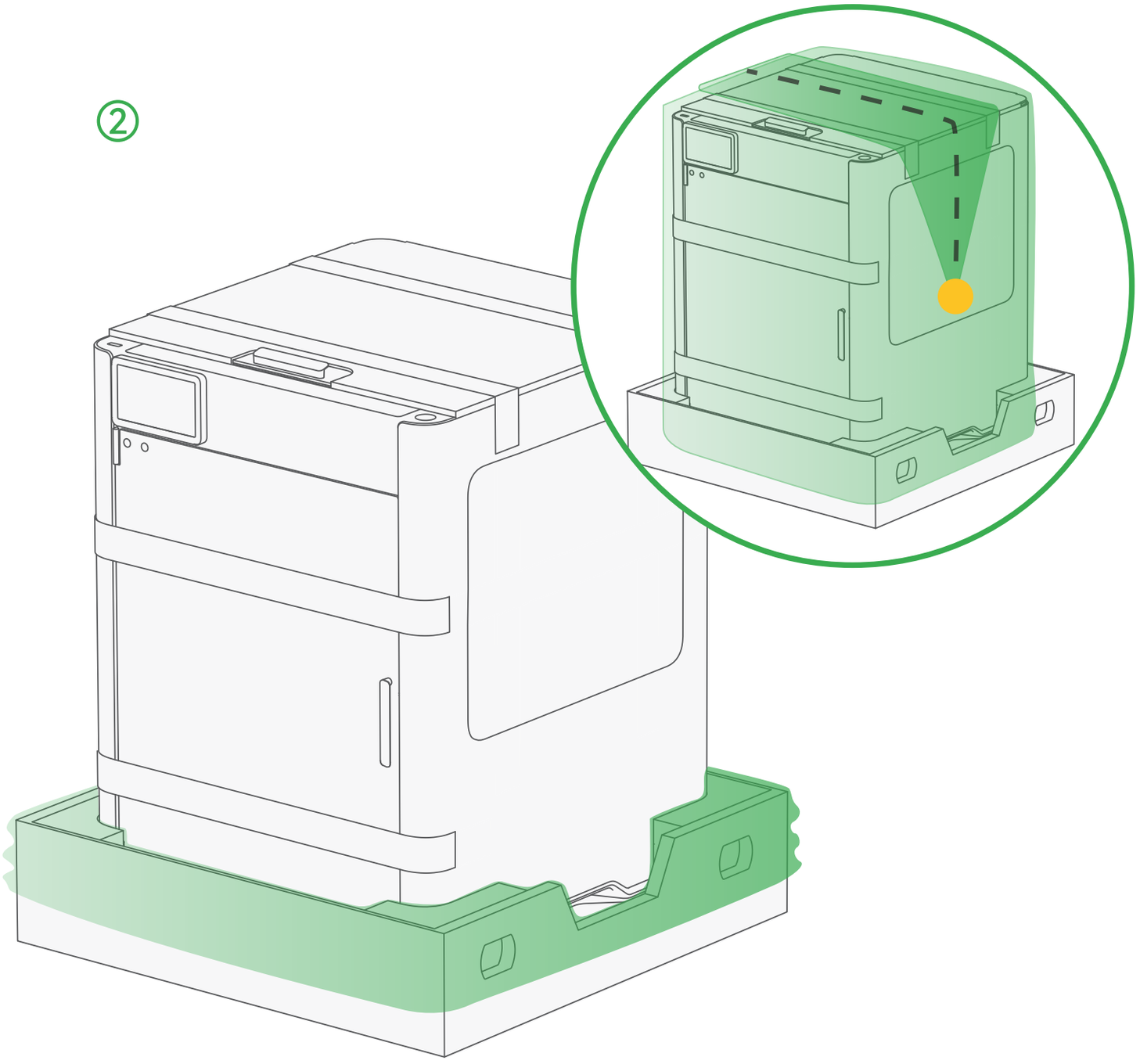
Remove the package

Keep packaging materials and screws for shipping.



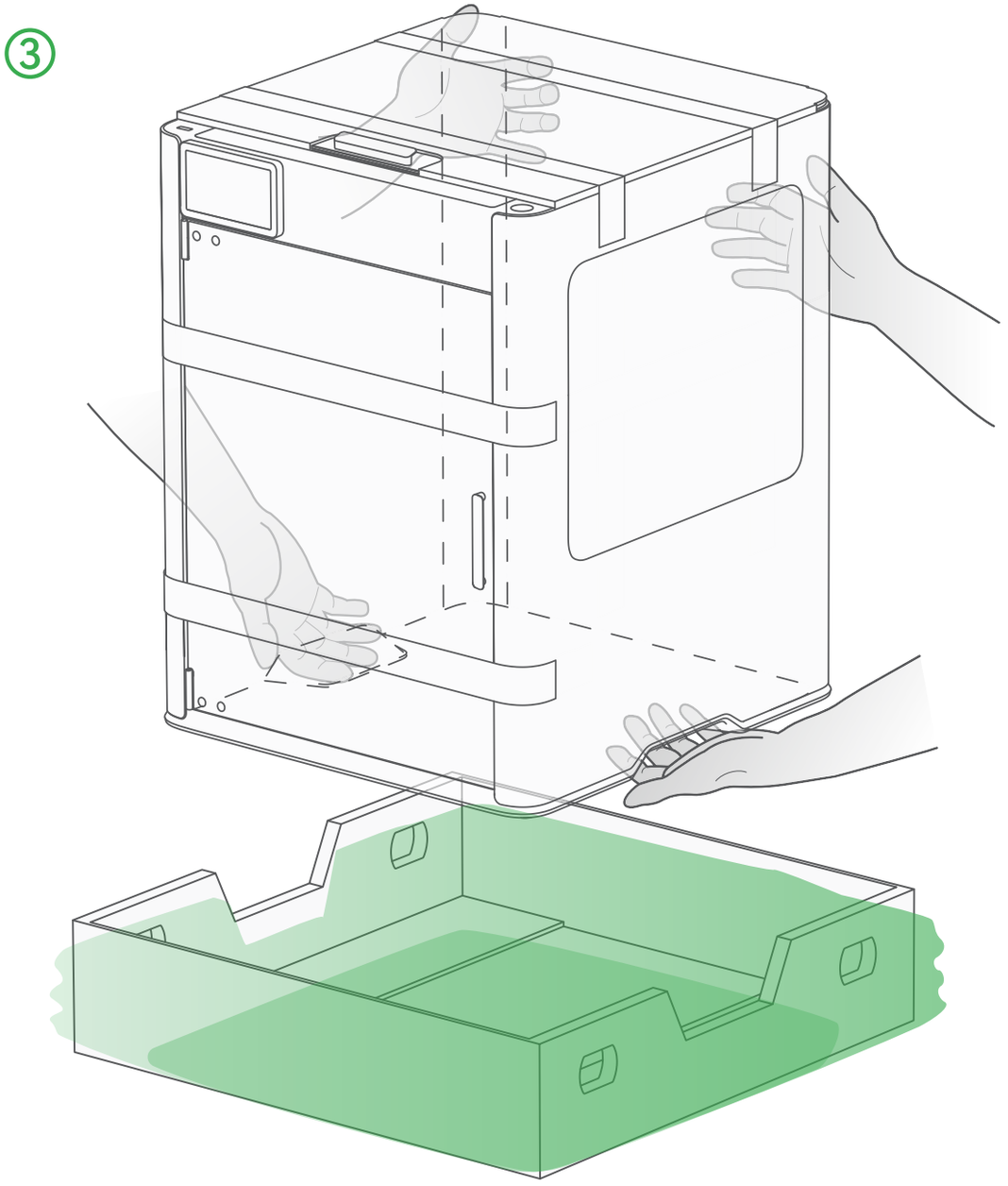
Take out the square accessory box, and remove the surrounding cardboard, foam and tape.

Remove the package



Remove the stickers from the sides and top opening of the moisture-proof bag. Then, pull the bag downward and fold it over all four corners of the bottom cardboard.

Remove the package

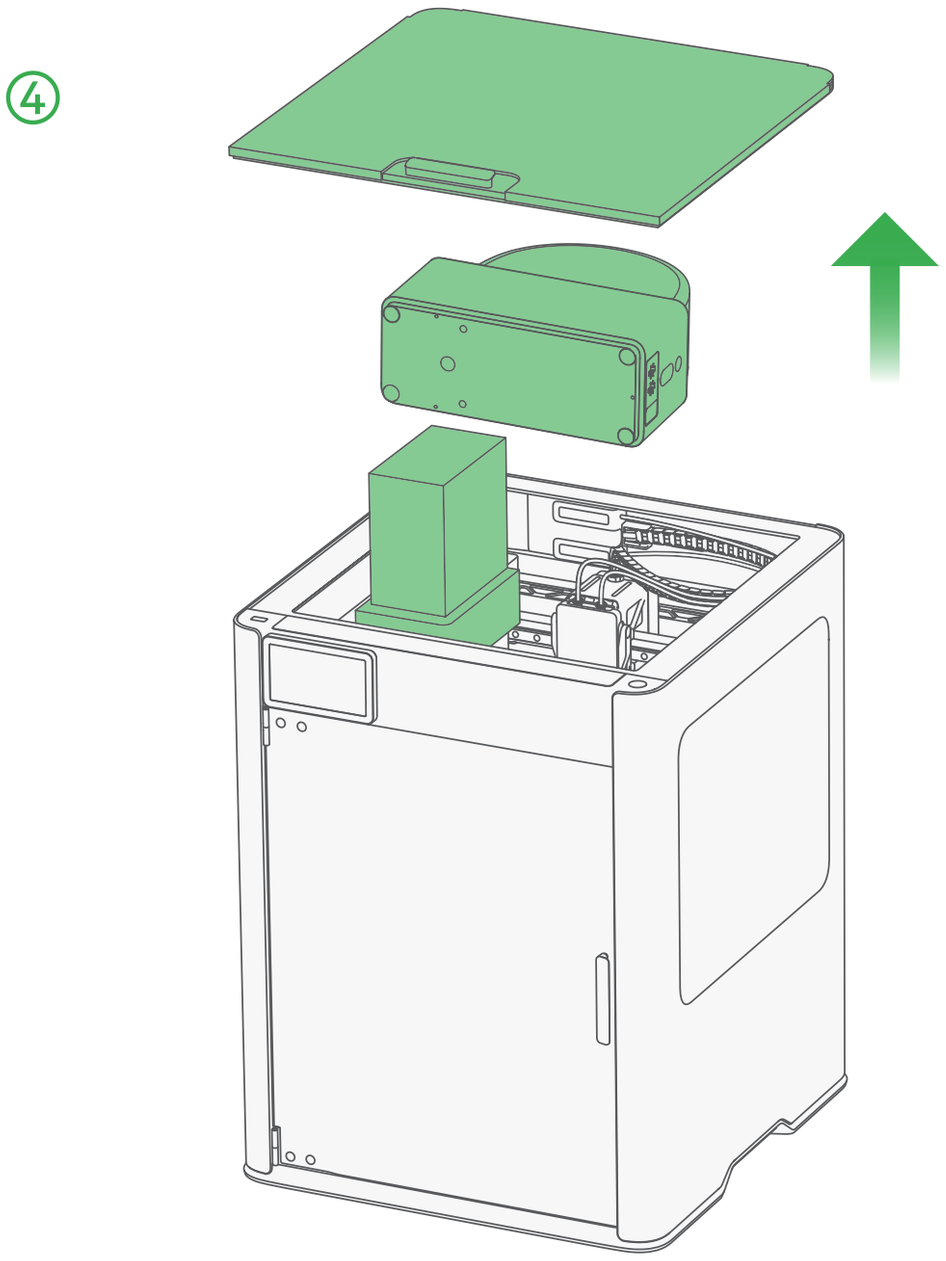


WARNING

To prevent the risk of suffocation, keep these bags away from babies and children

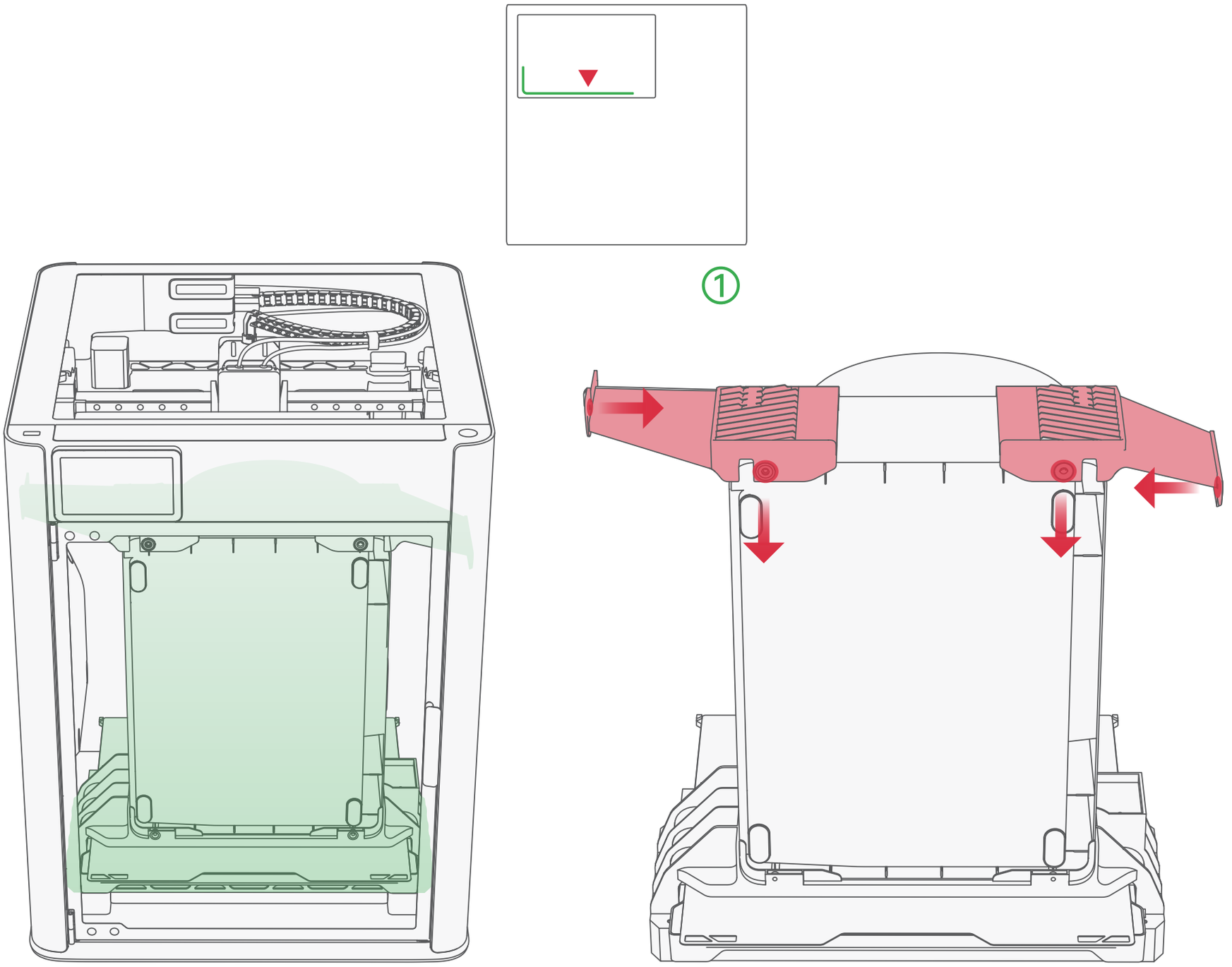
As shown in the picture, ensure the bottom cardboard stays in place. With two people, carefully lift the printer out of the cardboard and moisture-proof bag, and place it on a stable surface.

Remove the package



Remove the adhesive tapes and other packaging materials, and then take out the top glass cover, AMS HT, rectangle accessory box, and set them aside.

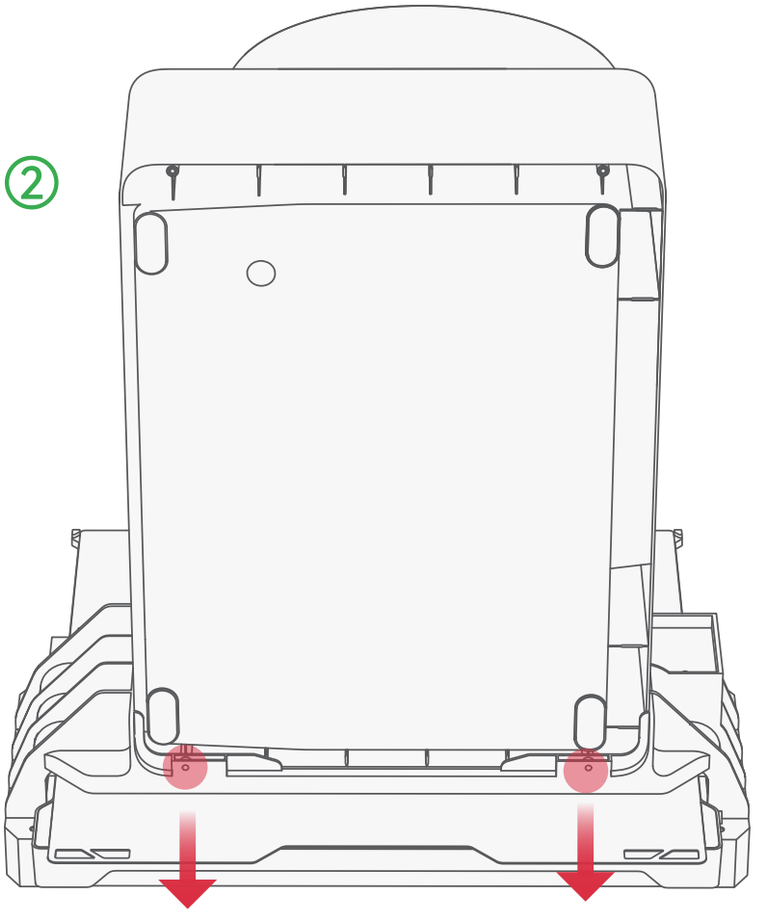
Unlock the AMS 2 Pro



Use the longer H2.0 allen key from the square accessory box to remove the 4 screws marked in red. Next, detach the two plastic parts from the top.

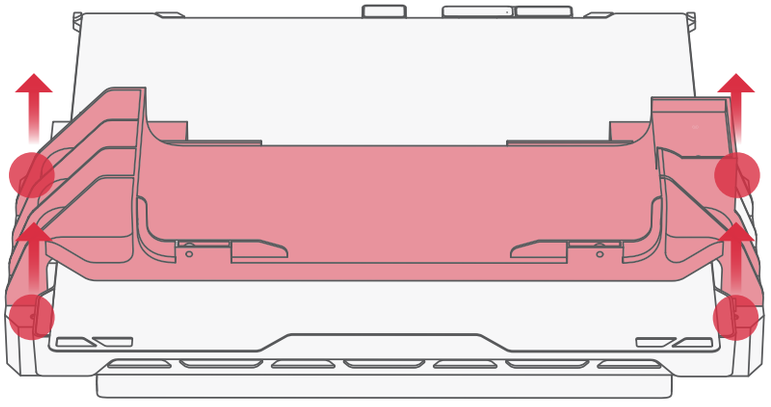
Unlock the AMS 2 Pro

②



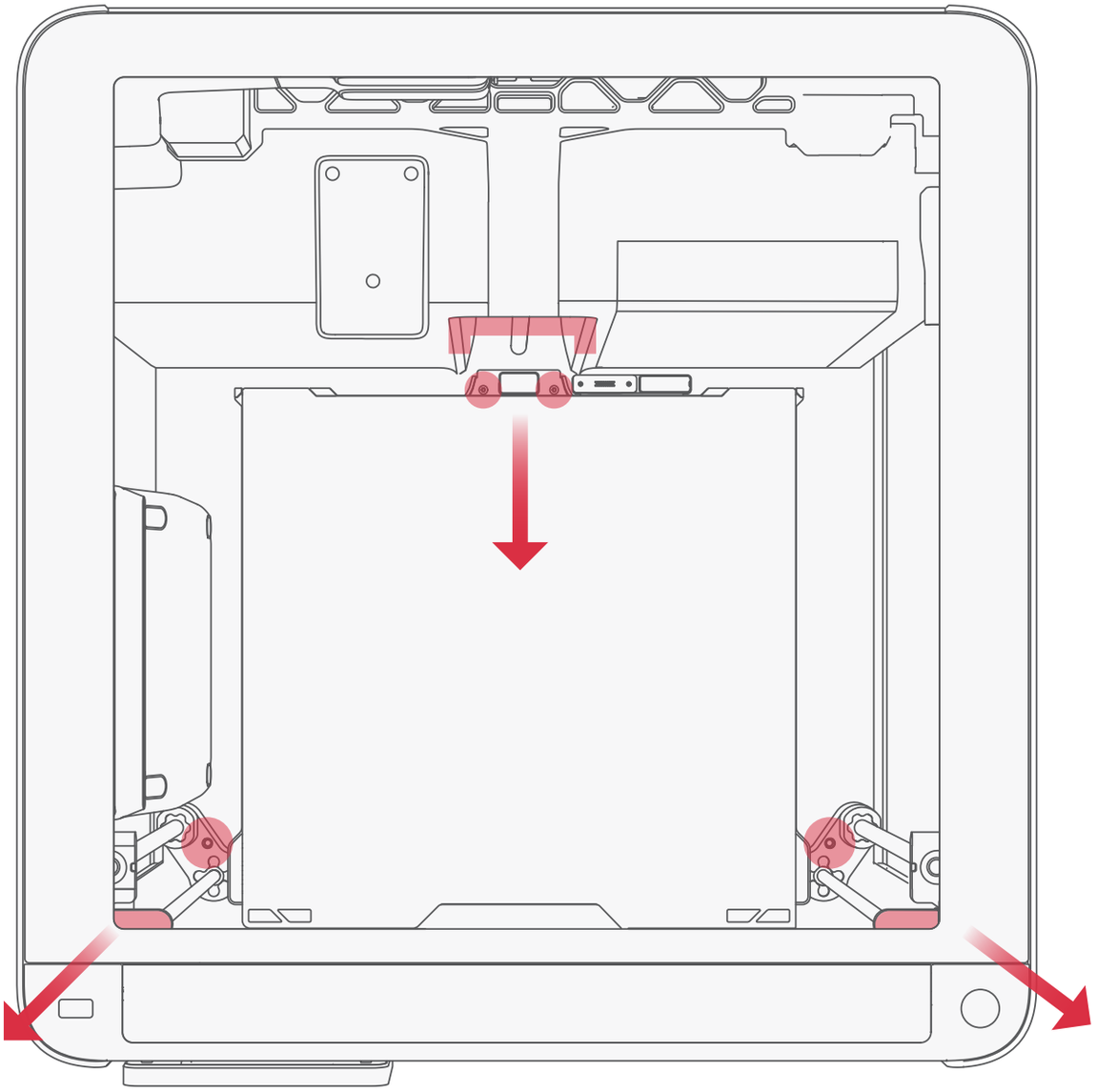
Use the H2.0 allen key to remove the 2 screws marked in red. Then, carefully take out the AMS 2 Pro.

③



Use the H2.0 allen key to remove the 4 screws marked in red. Then, take out the fixture and the nearby foam (except the foam under the heatbed).

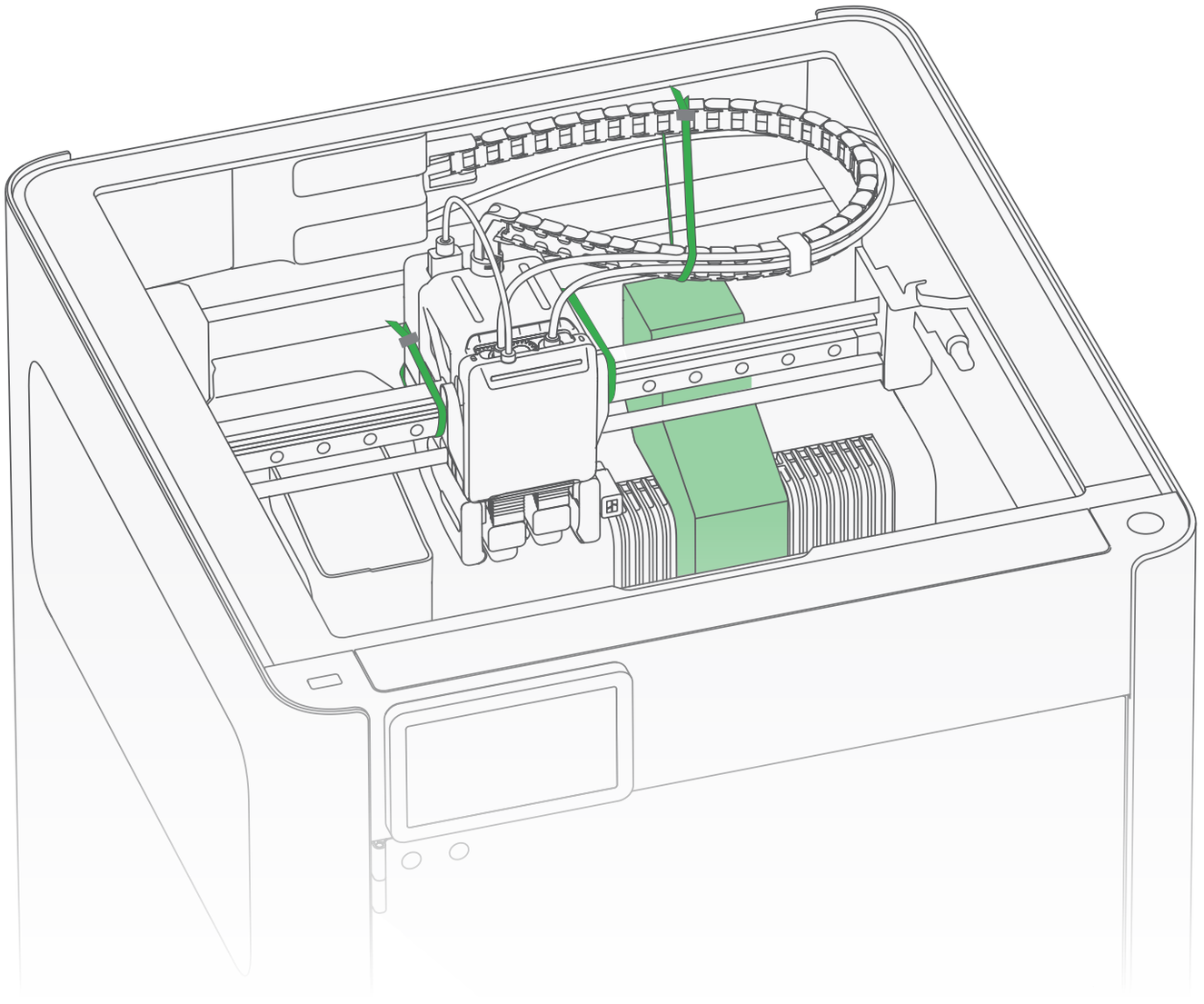
Unlock the heatbed



Use the H2.0 allen key to remove the 4 screws marked in red, and then remove the foams marked in red securing the lead screws.

The foam under the heatbed should be removed after calibration.

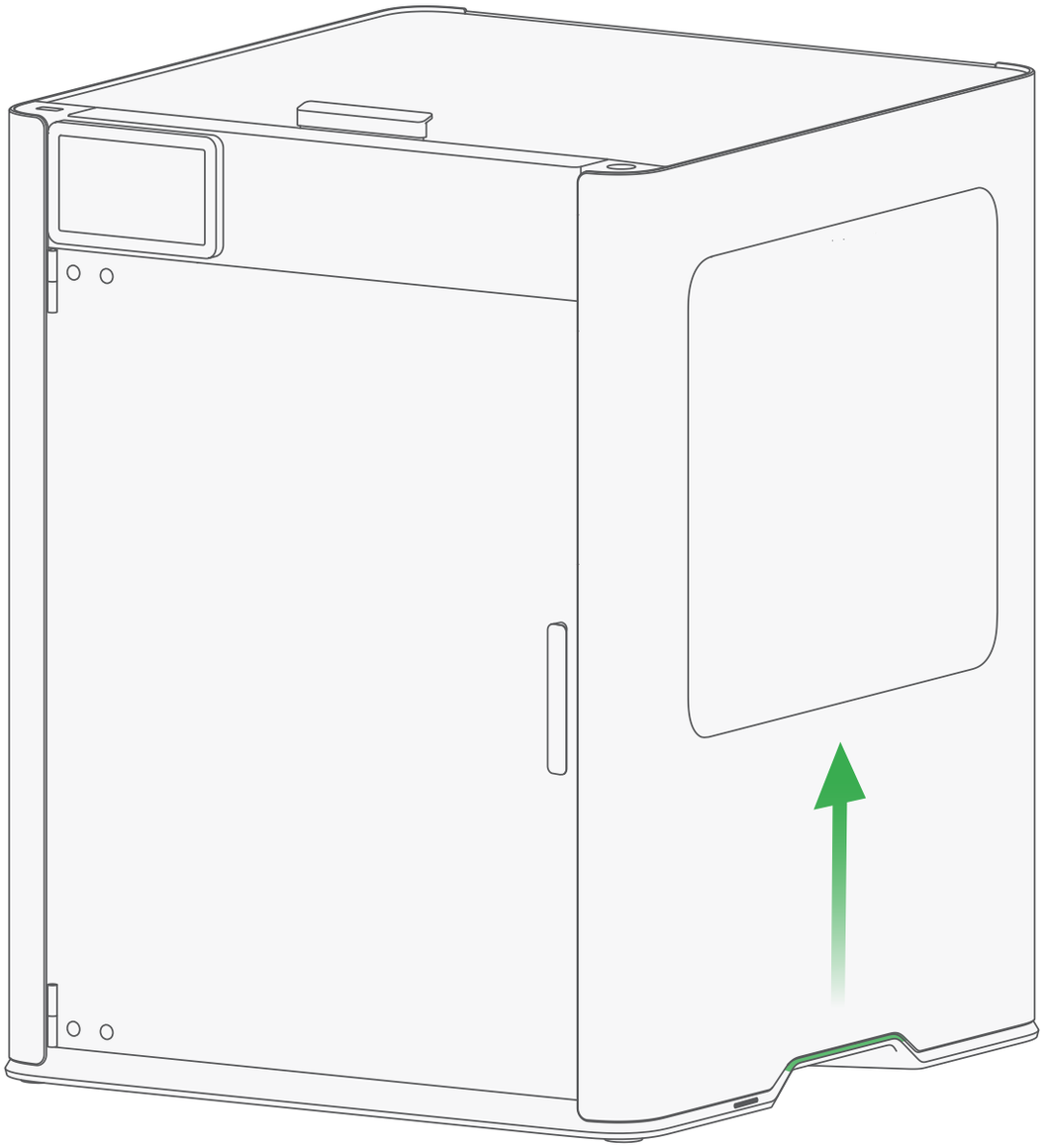
Unlock the toolhead



Cut and remove all zip ties. Pull the toolhead toward the front of the printer, then remove the foam piece marked in green.

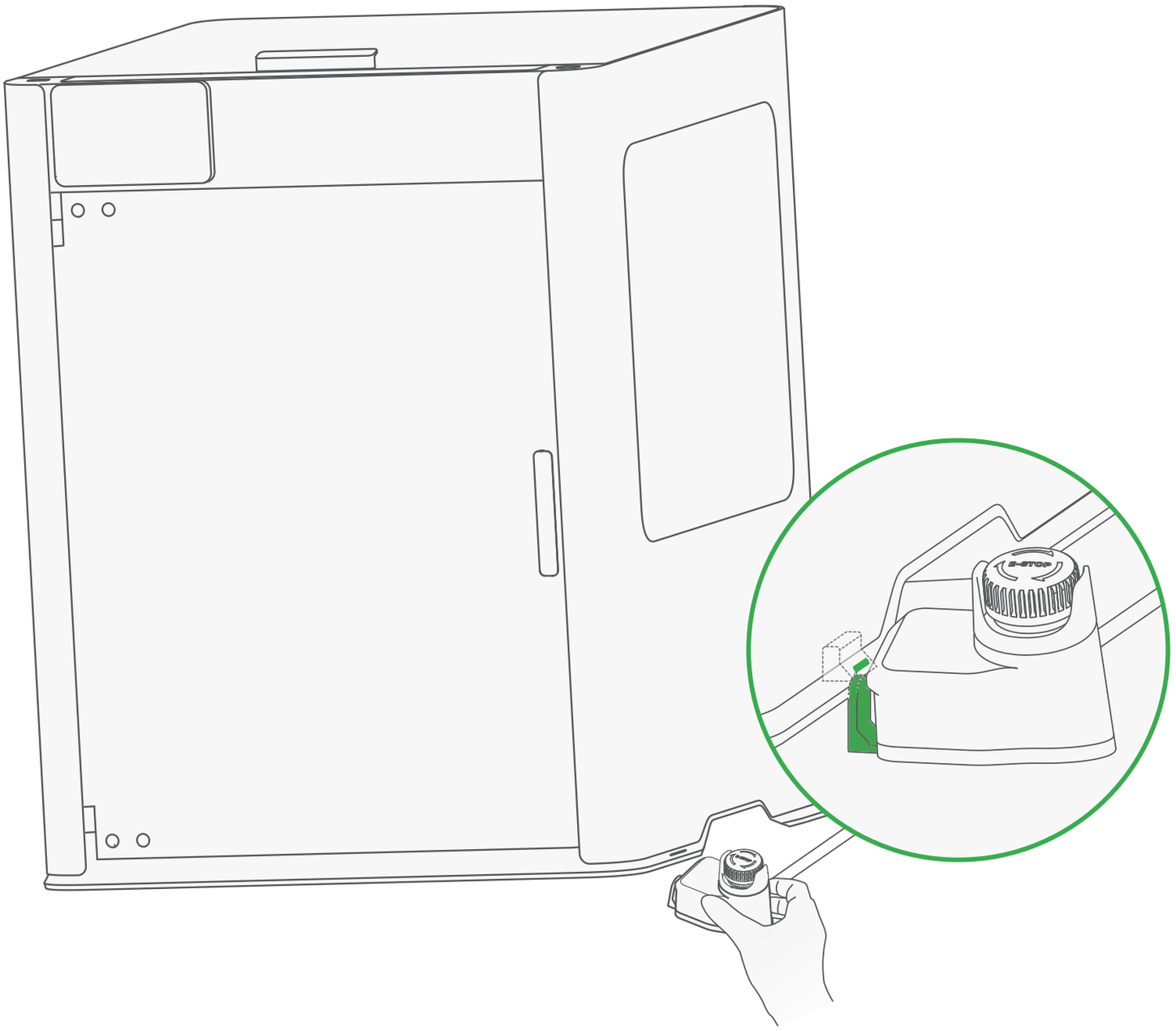
Install the emergency stop button

①



Gently lift up the printer using the handle.

Install the emergency stop button

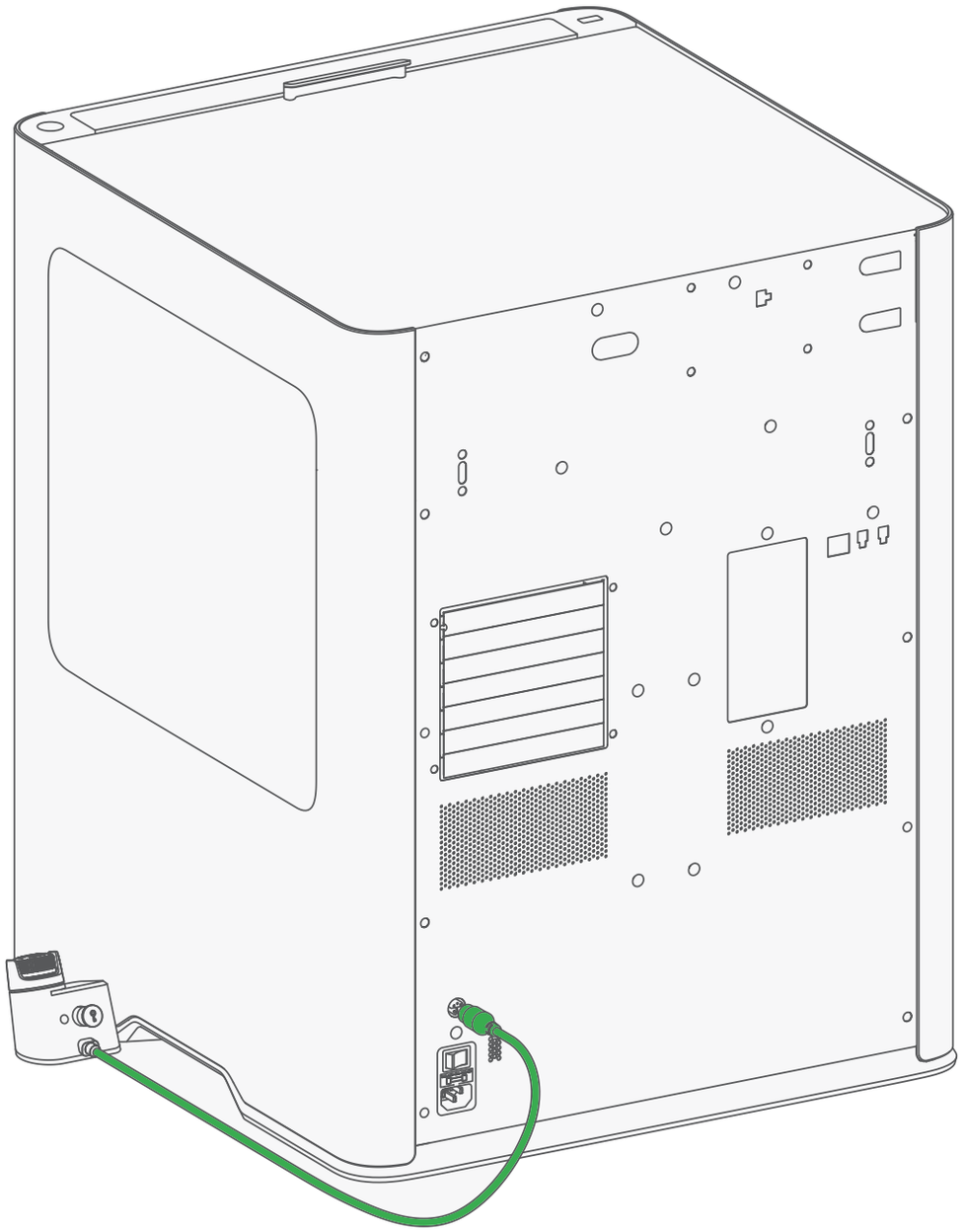


② Align the clip of the emergency stop button and the installation slot behind the icon on the printer. Then, insert the bracket into the slot.

③ Slowly lower the printer so that the clip is completely in the slot.

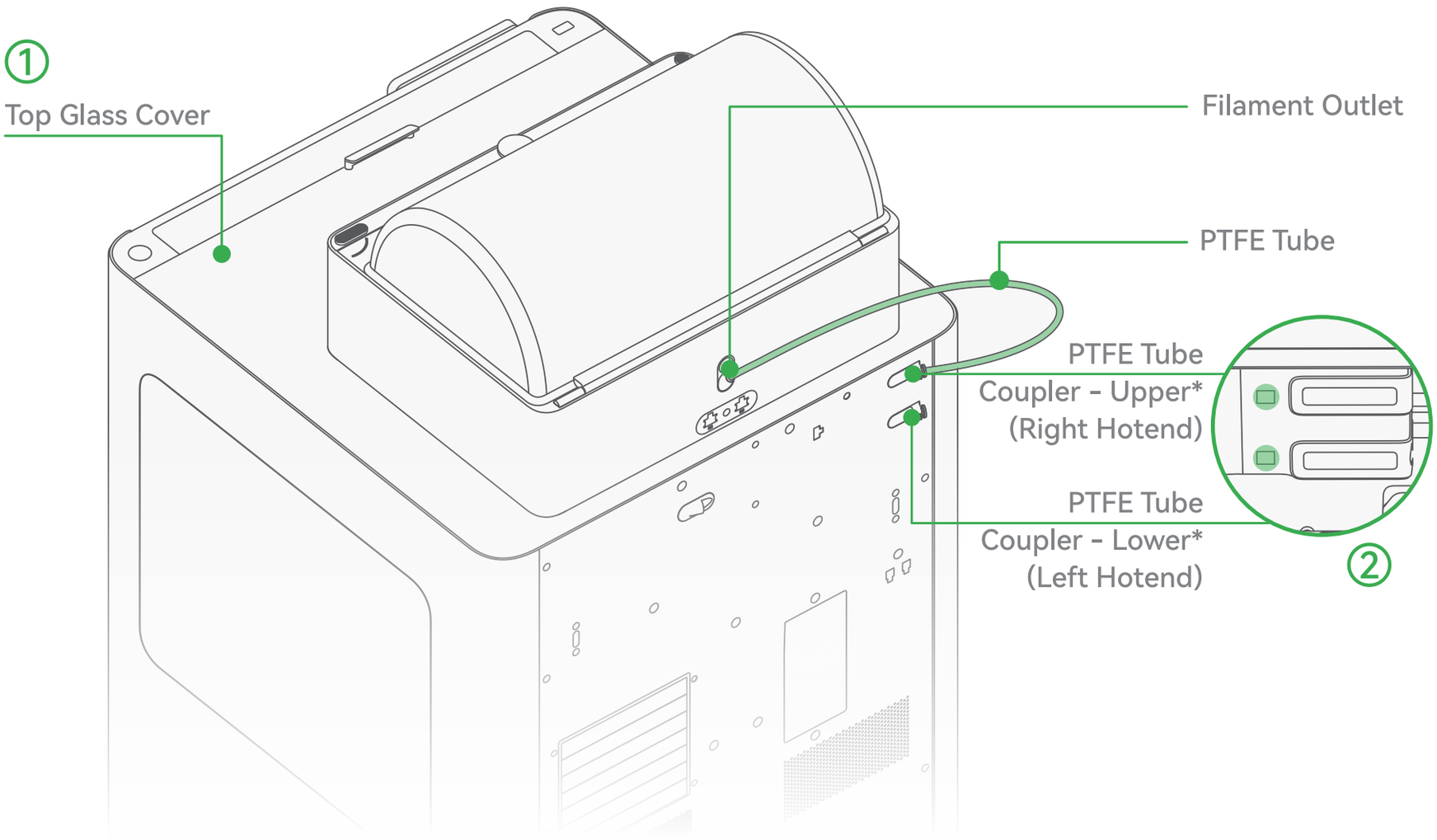
Install the emergency stop button

④



Insert the power cable of the emergency stop button into the port above the power socket.

Install the AMS 2 Pro

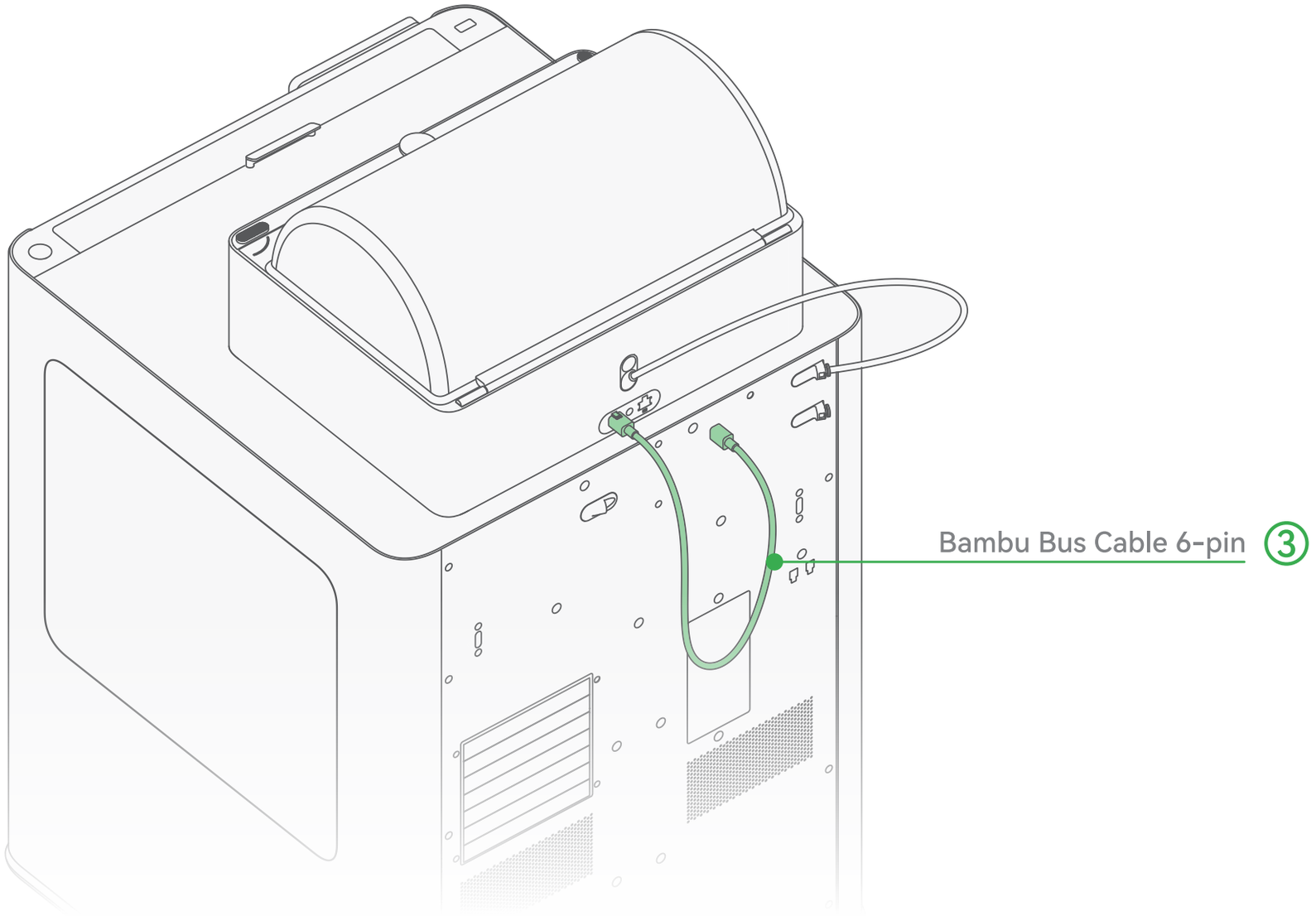


① Place the top glass cover and AMS 2 Pro on top of the printer.

② Take out the PTFE tube from the accessory box, insert it into the AMS 2 Pro's filament outlet and any PTFE tube coupler of the printer, and push the tube forward for approximately 10 cm until it stops (if you can see the PTFE tube from the window next to the buffer from the front of the printer, it is correctly inserted).

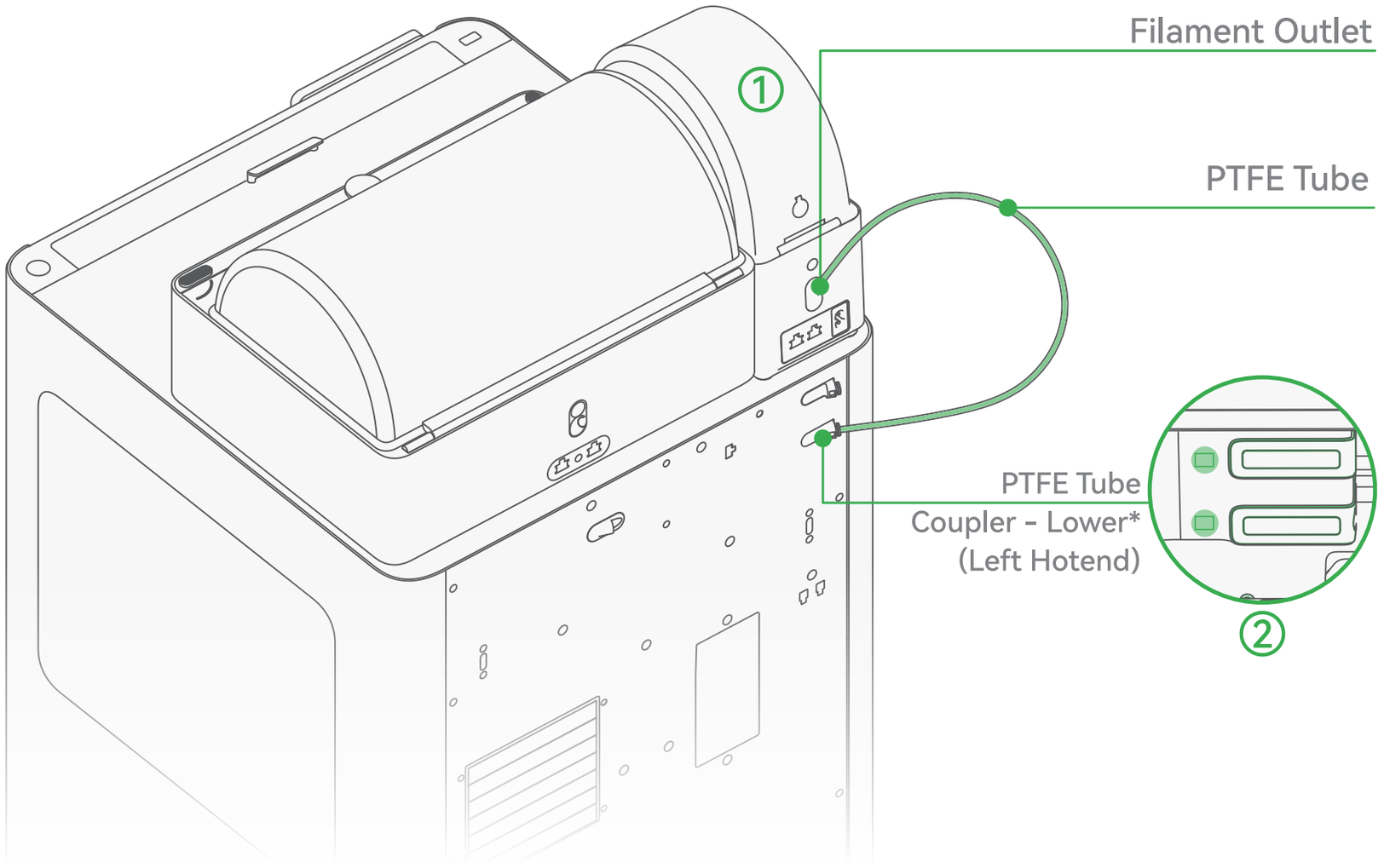
* The upper and lower PTFE tube couplers correspond to different hotends. Connecting the AMS 2 Pro to the **upper coupler** allows the **right hotend** to print in multiple colors. Connecting it to the **lower coupler** allows multi-color printing with the **left hotend**. Using **two AMS 2 Pro units** allows both hotends to support multi-color printing independently.

Install the AMS 2 Pro



③ Take out the Bambu Bus Cable 6-pin from the accessory box, and connect it to the printer and either 6-pin port of the AMS 2 Pro.

Install the AMS HT

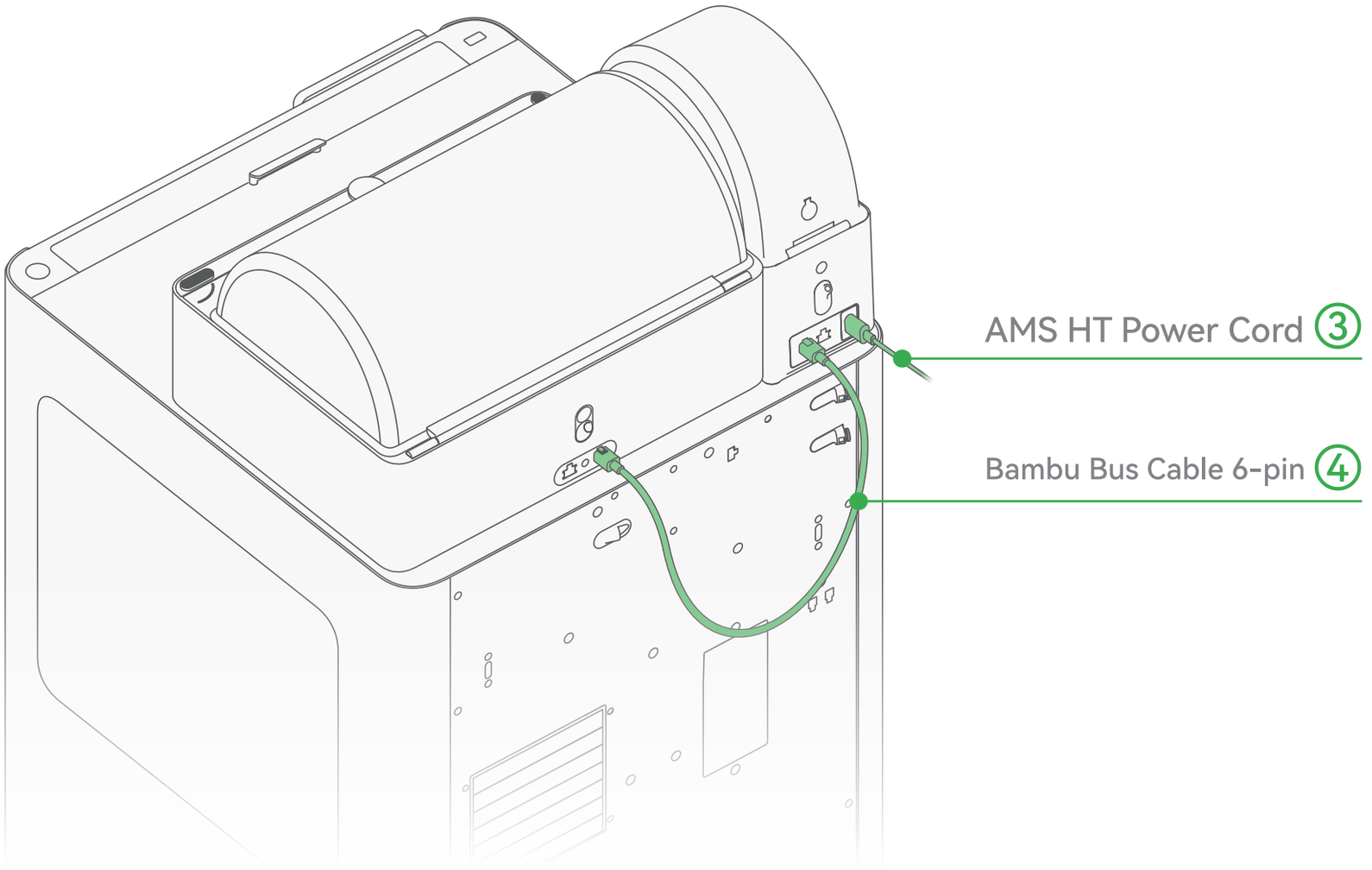


① Place the AMS HT on the left of the AMS 2 Pro.

② Take out the PTFE tube from the accessory box, insert it into the AMS HT's filament outlet and the remaining PTFE tube coupler of the printer, and push the tube forward for approximately 10 cm until it stops (if you can see the PTFE tube from the window next to the buffer from the front of the printer, it is correctly inserted).

* The upper and lower PTFE tube couplers correspond to different hotends. Connecting to the **upper coupler** allows the **right hotend** to print with the AMS HT, while connecting to the **lower coupler** allows the **left hotend** to print with the AMS HT.

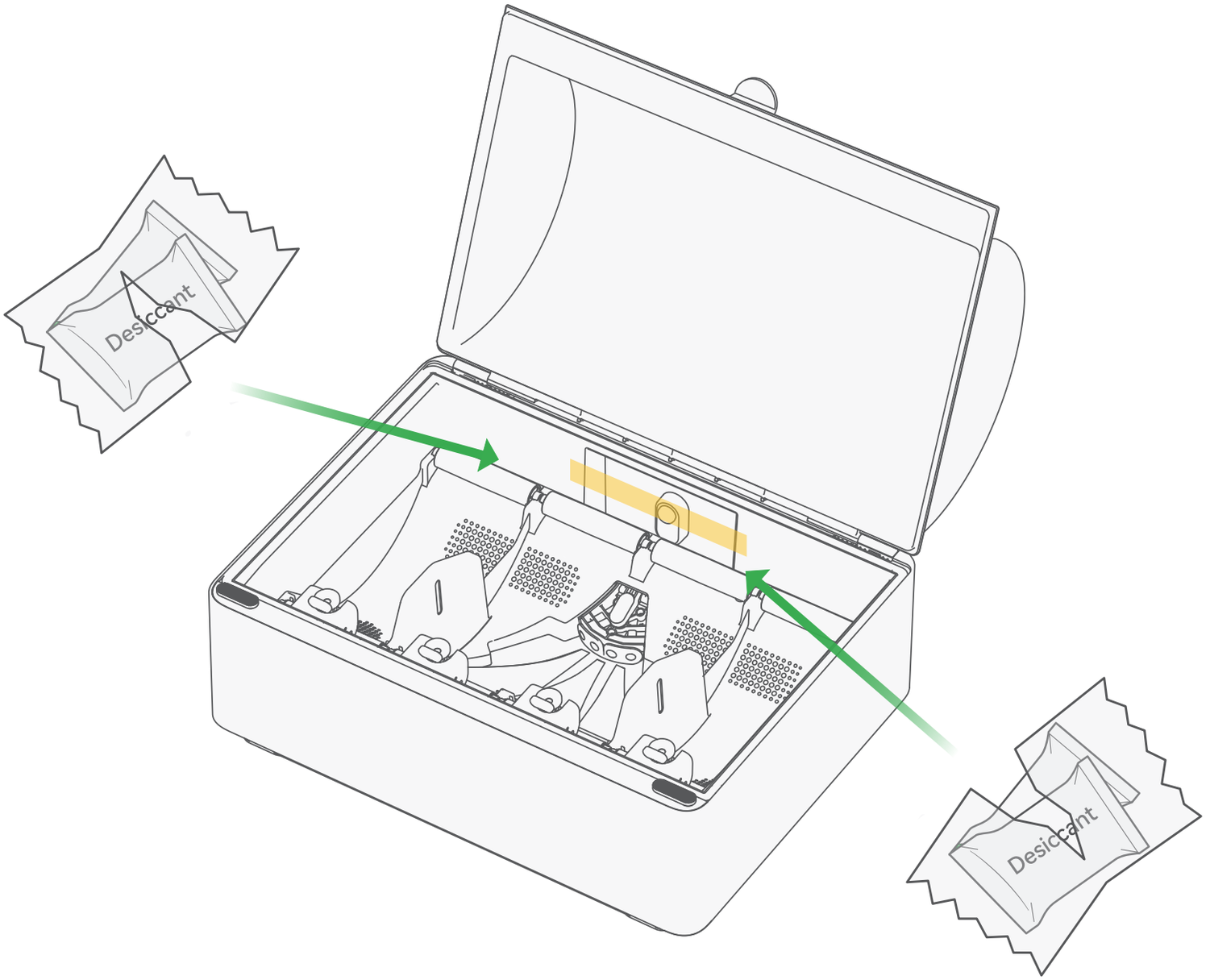
Install the AMS HT



③ Insert the power cord into the power port of the AMS HT.

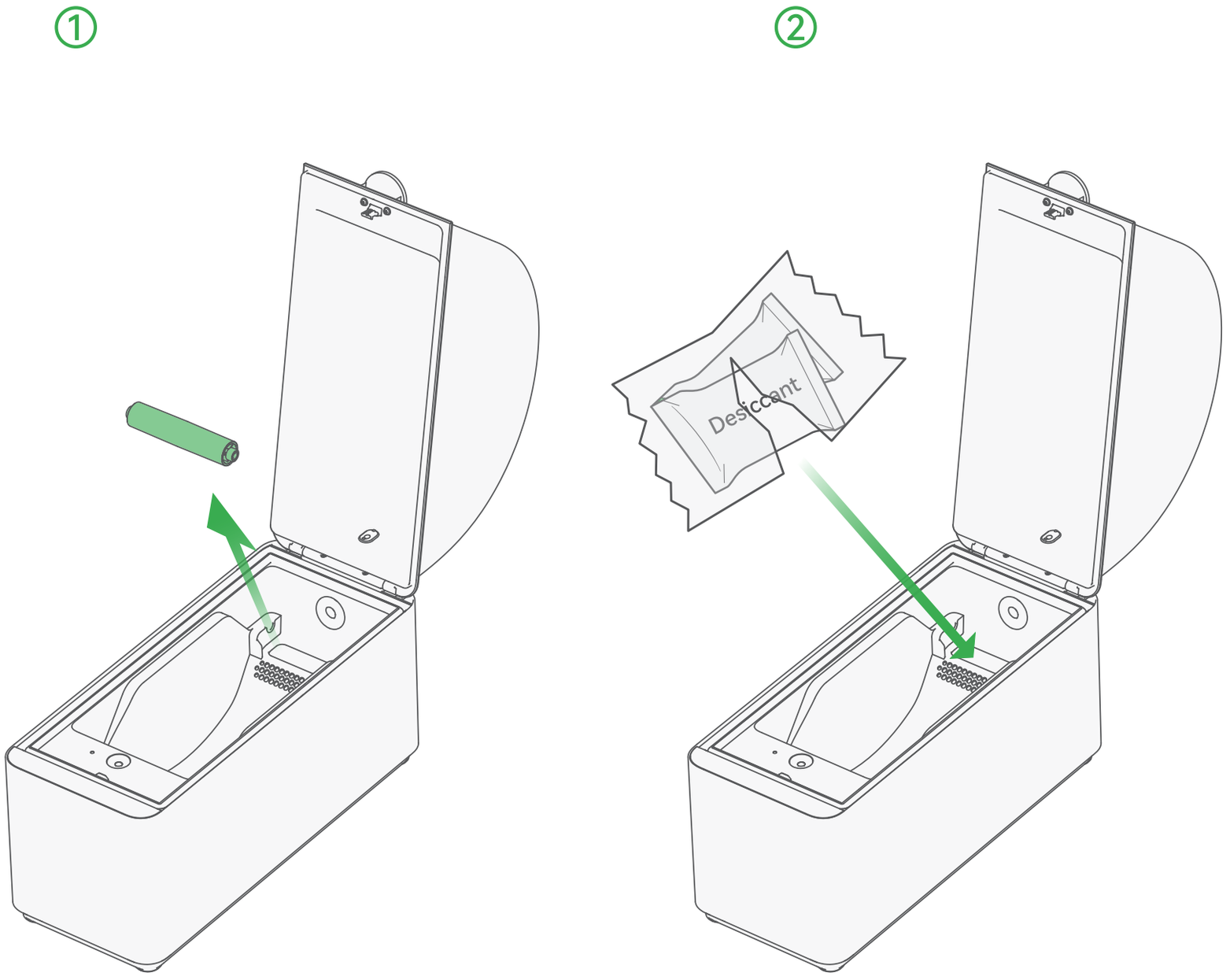
④ Take out the Bambu Bus Cable 6-pin from the accessory box, and connect it to the AMS 2 Pro and either 6-pin port of the AMS HT.

Place the desiccant in the AMS 2 Pro



Remove the tape from the back of the AMS 2 Pro and take out the desiccant packs. Remove the outer plastic packaging material and install 2 packs of desiccant on each side of the empty space.

Place the desiccant in the AMS HT

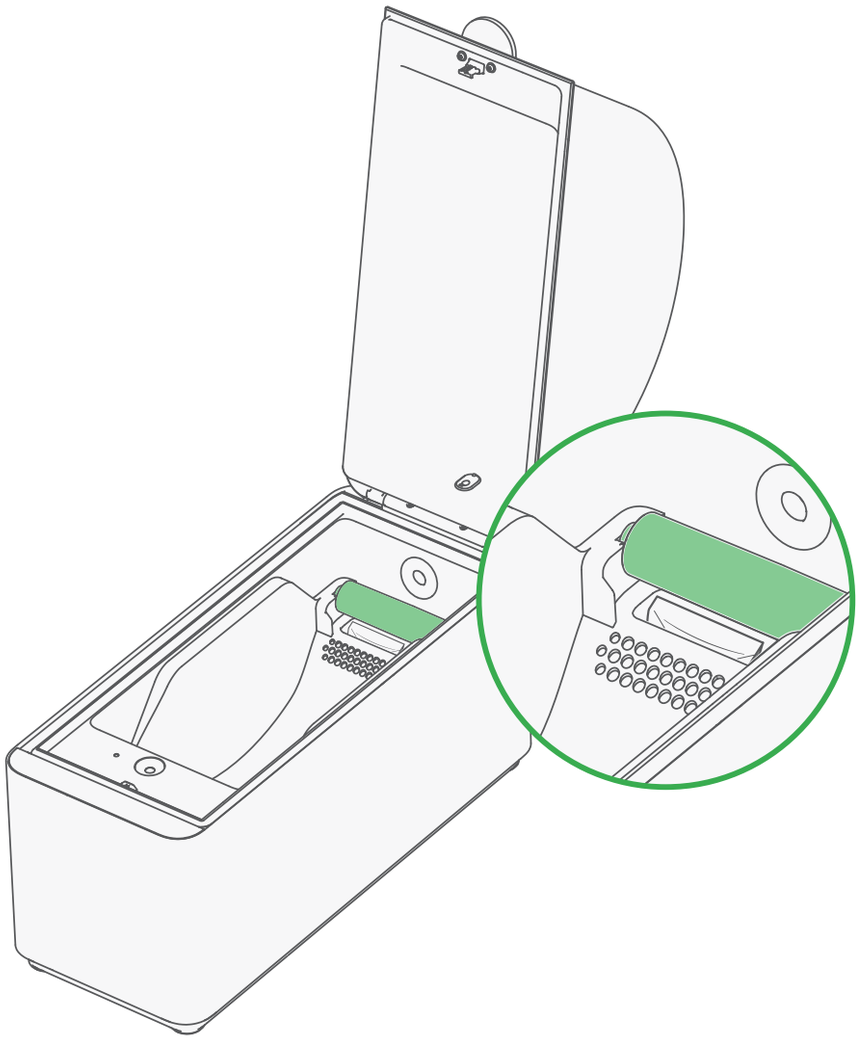


① Remove the tape from the driven support shaft. Then, carefully slide out the shaft while ensuring the bearings on both sides remain secure.

② Take out the desiccant from its outer plastic packaging material and place it in the empty space beneath the driven support shaft.

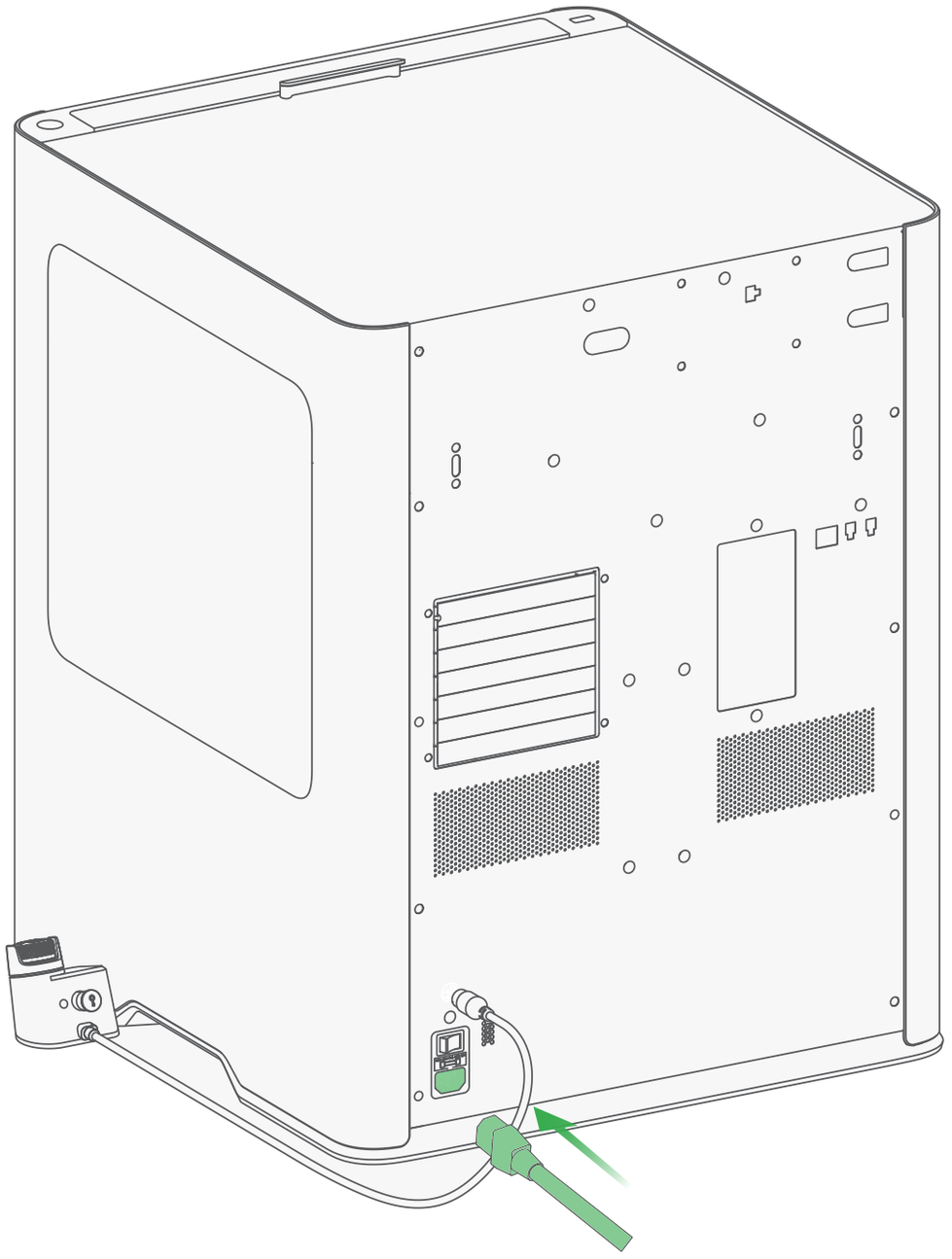
Place the desiccant in the AMS HT

③



Install the driven support shaft by pressing firmly on both ends to click it in place.

Plug in the power cord and power on

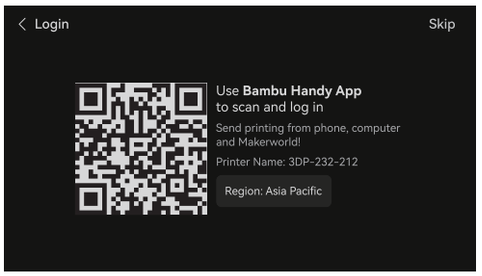


Plug the power cord in the power socket on the back. Then, turn on the power switch.
If the printer cannot be powered on, please check the emergency button and make sure it is not pressed down and the safety key is installed.

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.

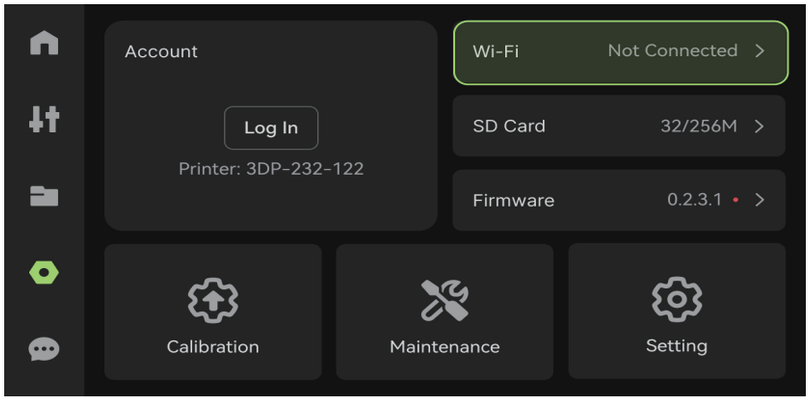


3. Scan the QR code on Bambu Handy to bind the printer to your Bambu Lab account.

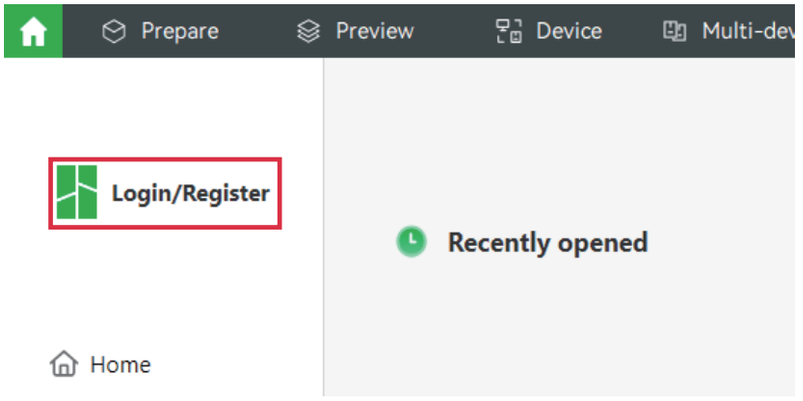
4. Follow the instructions on the screen to complete the initial calibration. It is normal to have vibration and noise during the process.

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

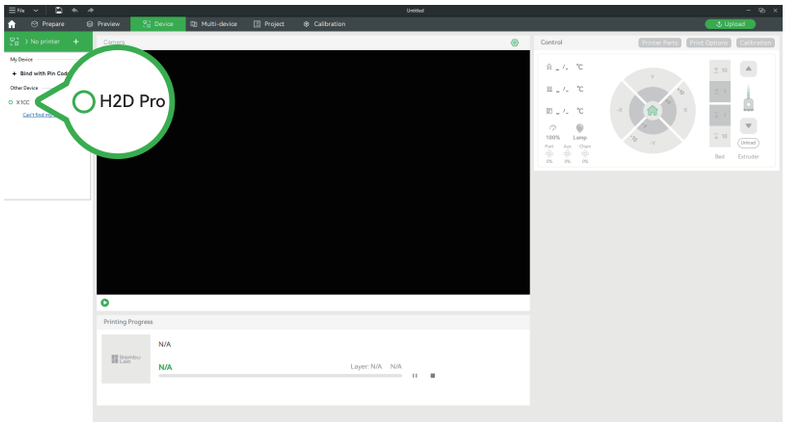
Bind the printer - Bambu Studio



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.

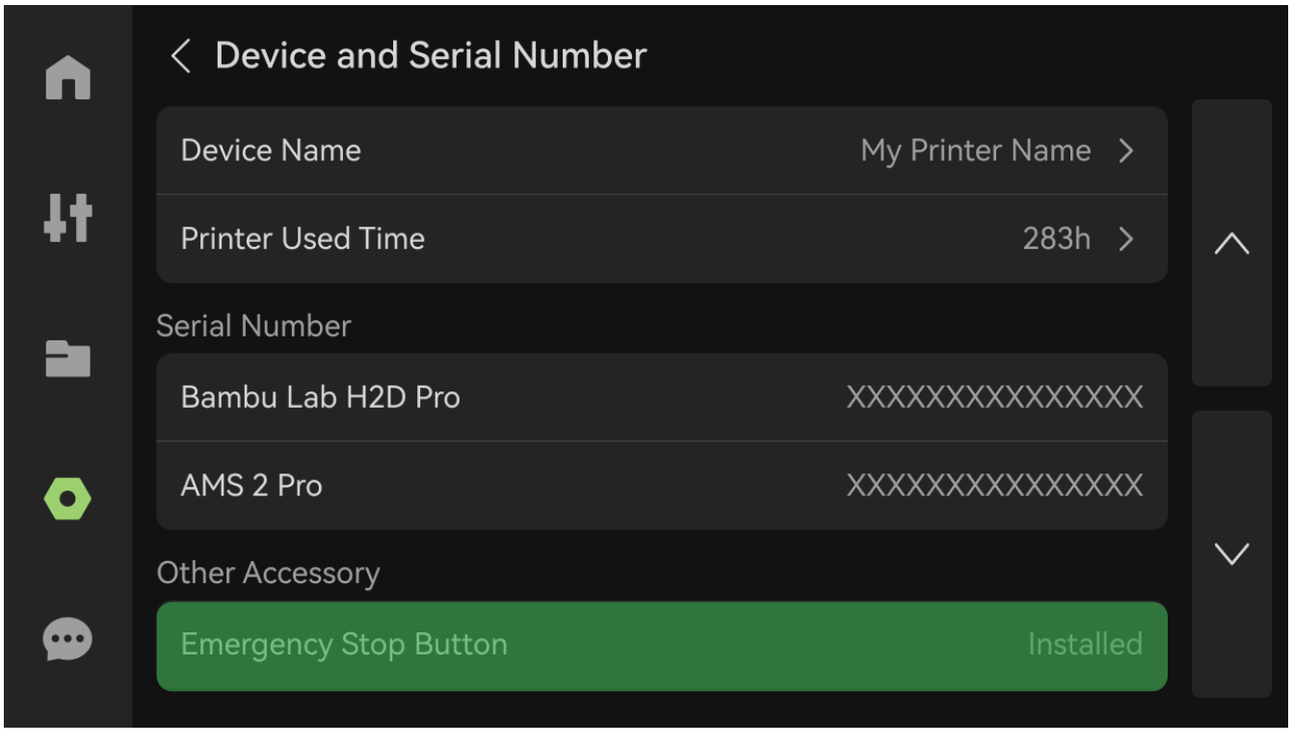


2. Visit the link below to download and install Bambu Studio. Register and log in to your Bambu Lab account.
bambulab.com/download/studio



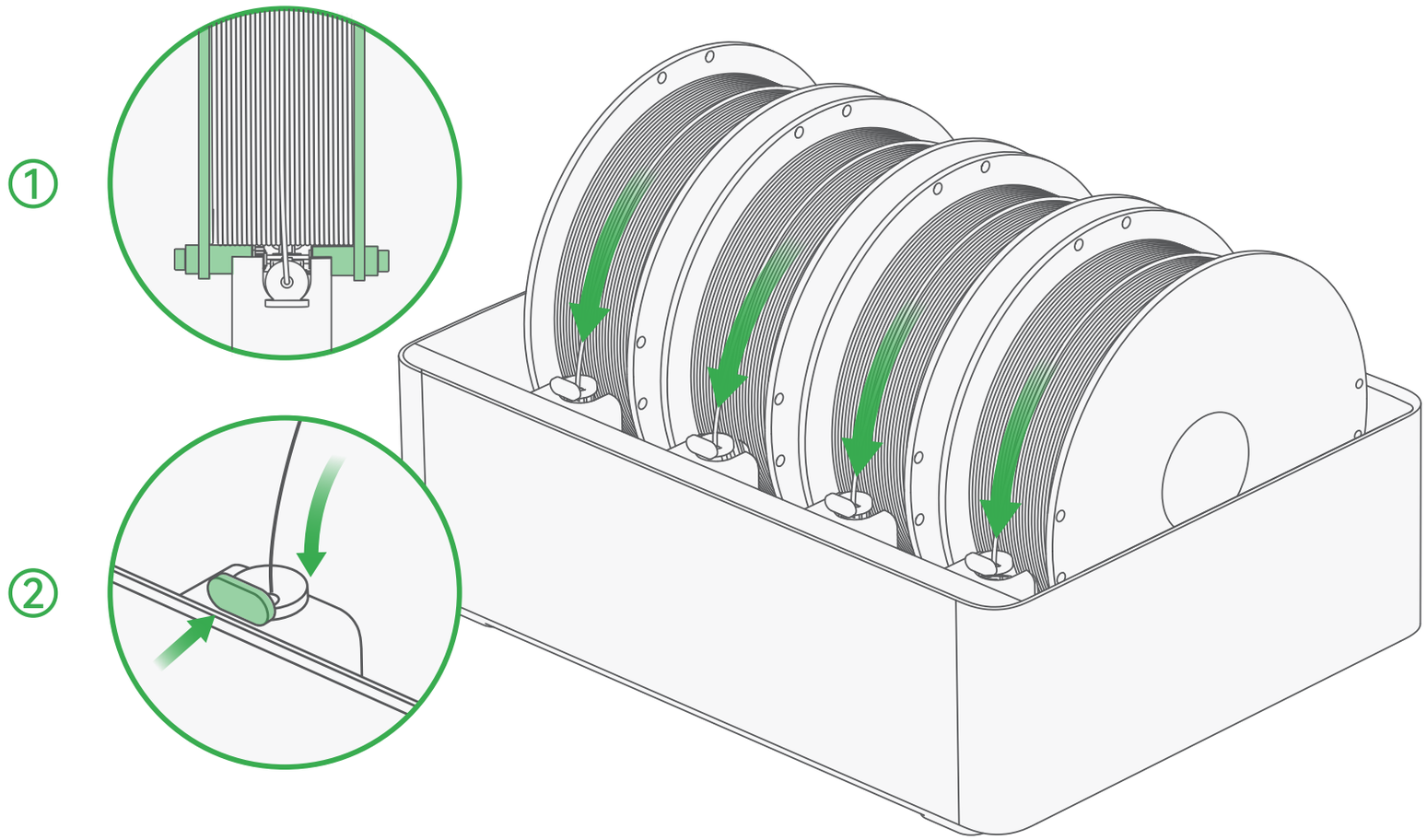
3. Click “+” on the device page, and Bambu Studio automatically discovers printers on the same network. Click the detected printer to bind it to your Bambu Lab account.

Check the status of the emergency stop button



On the touchscreen, select - Setting - Device and Serial Number. If the status of the emergency stop button is “Installed”, it means it is correctly installed. If not, please check the steps and re-install the button. You can also check if the button can work properly by pressing the button to cut off power and rotate it clockwise to restore power.

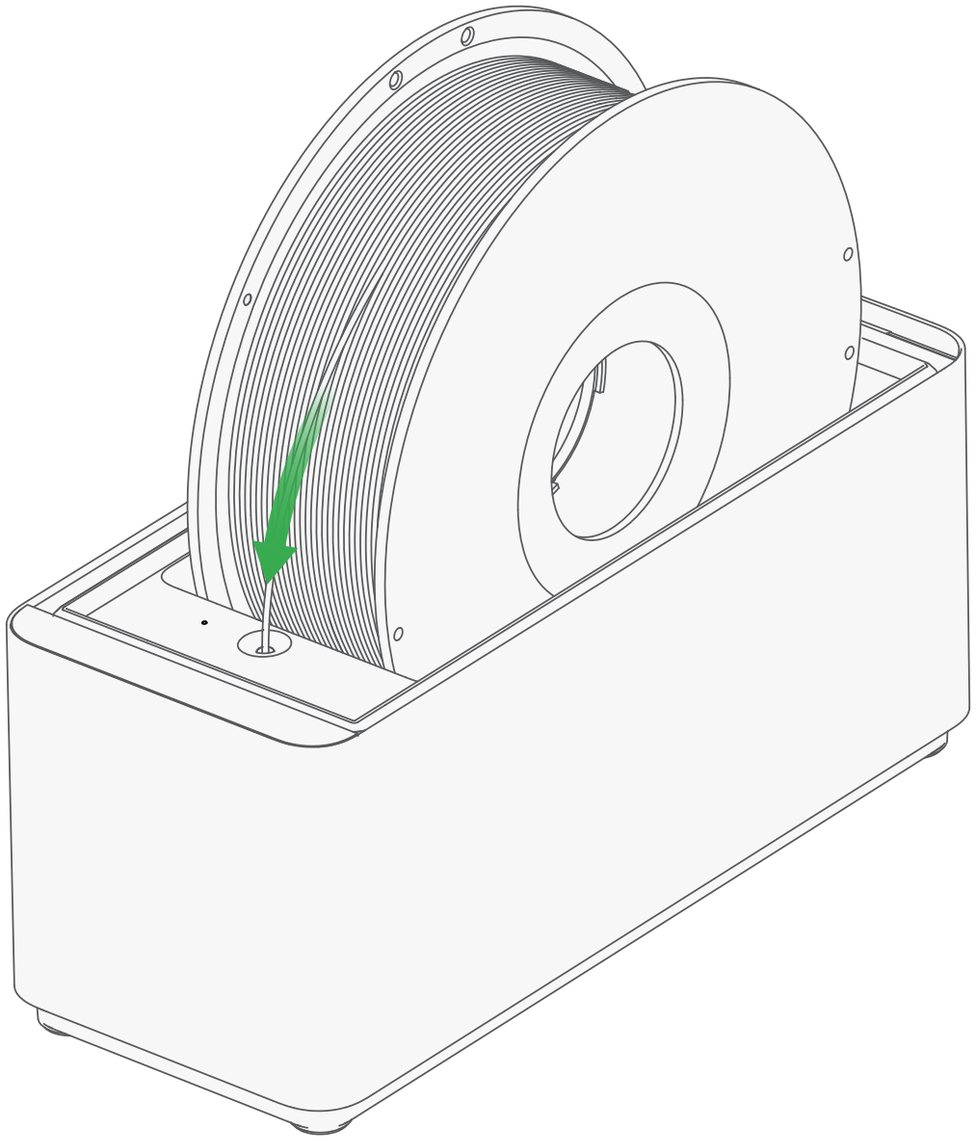
How to load filament in the AMS 2 Pro



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.

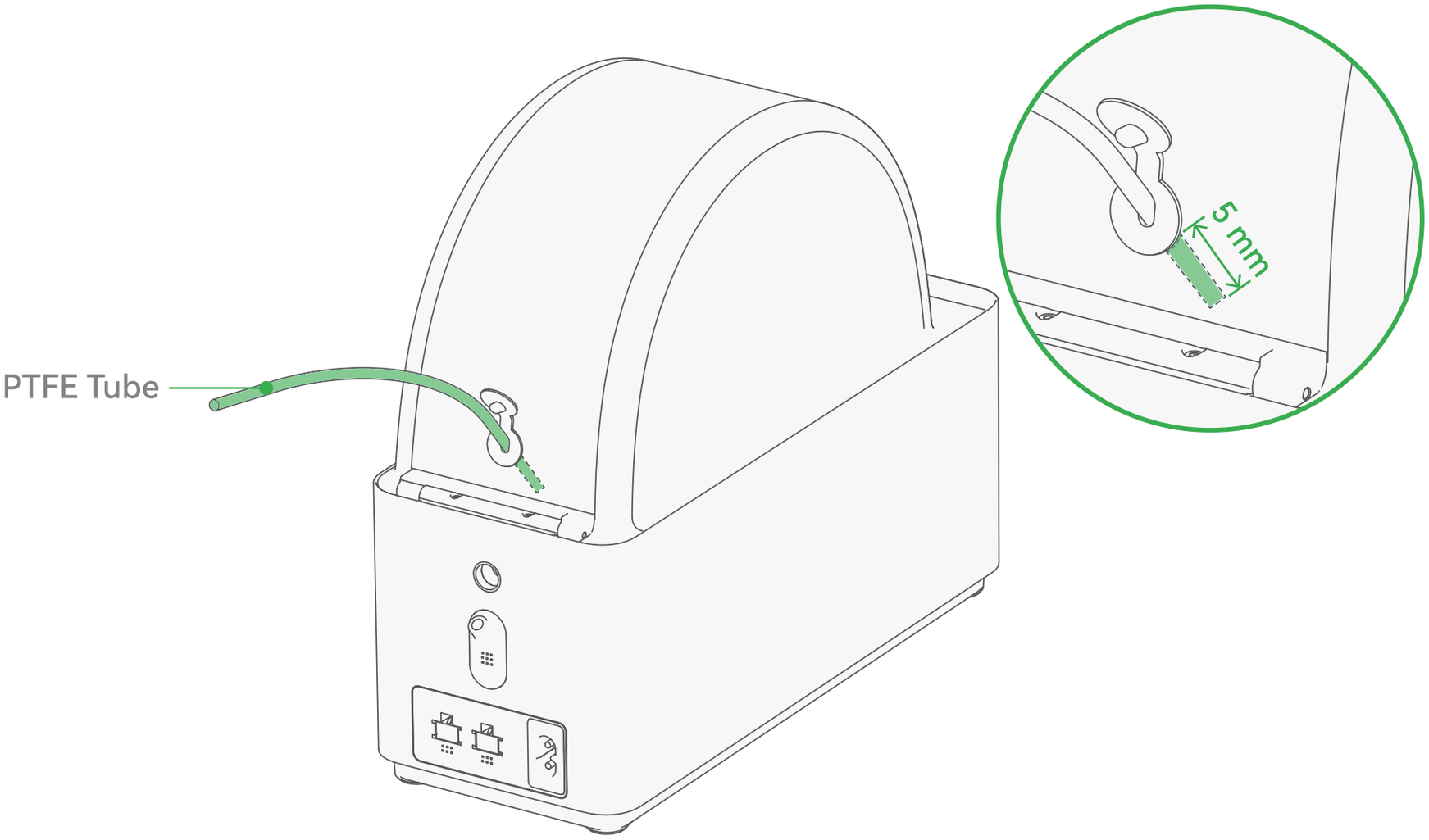
How to load filament in the AMS HT



Power on the printer and place a spool inside the AMS HT. Insert the filament into the AMS HT. The AMS HT will pre-load it after it is detected. When the status indicator next to the filament inlet is on, the AMS HT is ready to print.

How to use TPU filament in the AMS HT

①

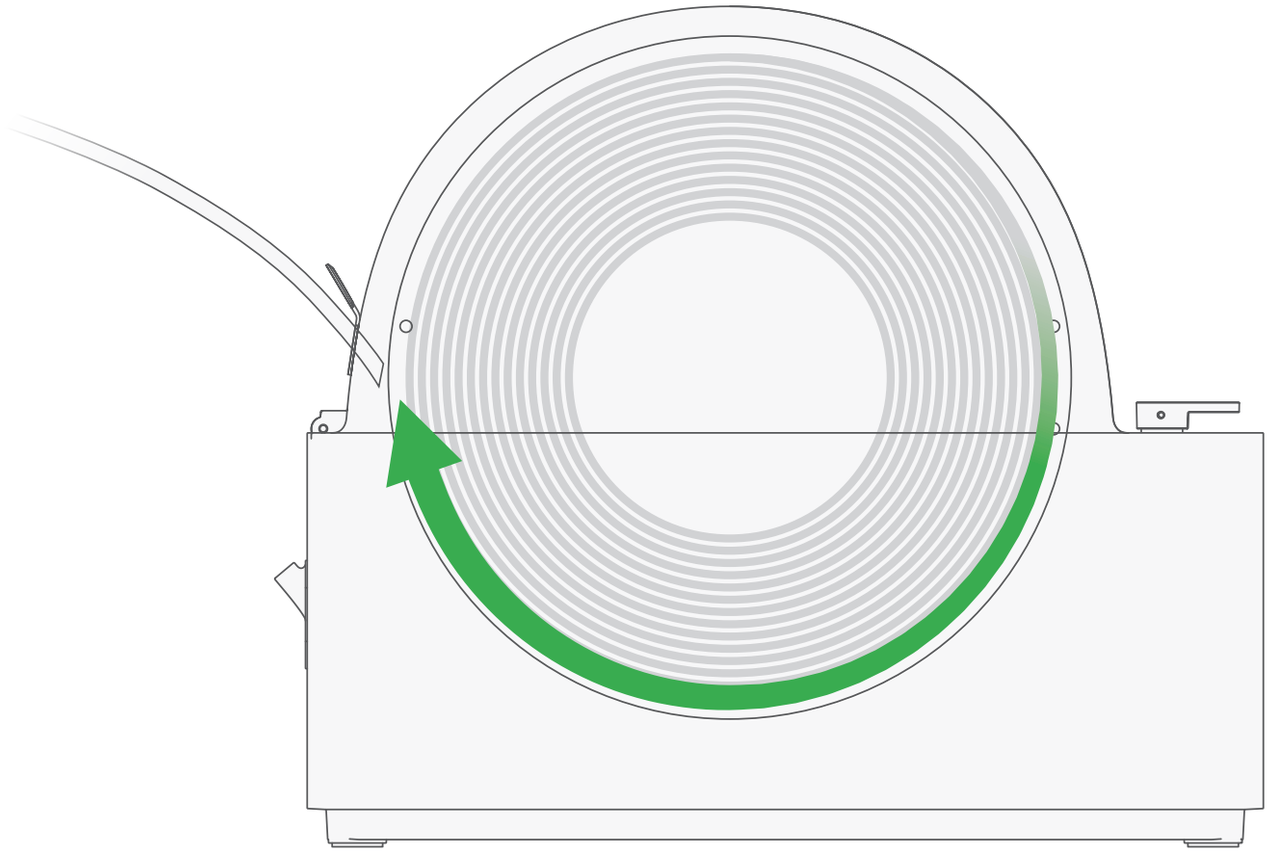


If you need to use TPU filament with a hardness level that is or below 95A, you must feed it through the bypass filament outlet on the back of the top lid. Insert a PTFE tube into the bypass filament outlet, and push the tube inside for about 5 mm.

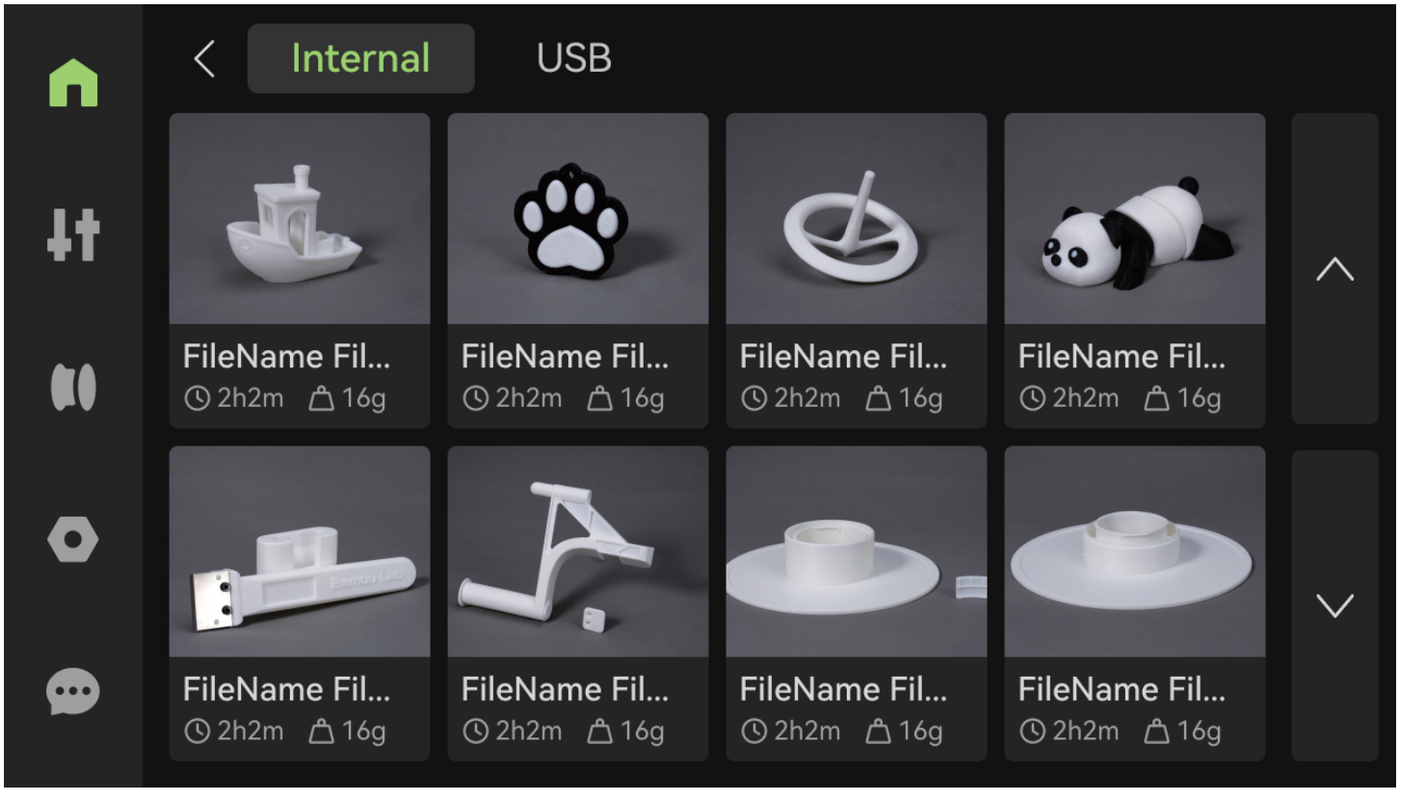
* When not using TPU, keep the bypass filament outlet closed to prevent moisture exposure.

How to use TPU filament in the AMS HT

②



Place a spool of TPU filament inside the AMS HT, ensuring it is rotating in the direction indicated in the picture above. Then, manually guide the filament through the PTFE tube and continue feeding it until it reaches the extruder and cannot move forward.

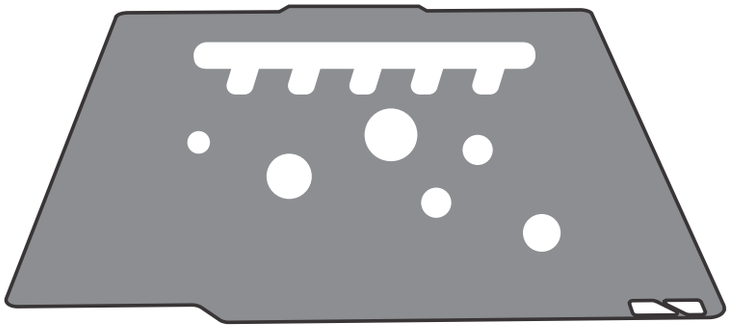


Select  - Print Files, then select a model you wish to print.

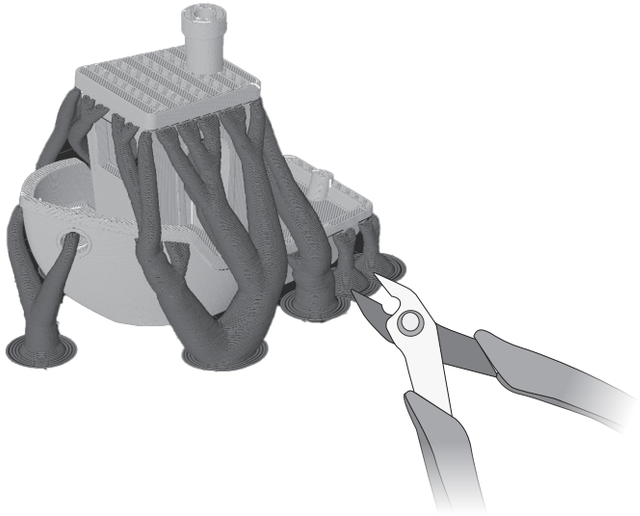
* The textured PEI plate that comes with the printer is sensitive to dirt and oil. If you have touched the surface of the plate with your hands, oils from your hands can transfer to the surface and impact the plate's adhesion properties. It is recommended to wash it with hot water and detergent first to ensure the best adhesion.

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 the heatbed fully cools down. It will be harder to remove if the filament absorbs moisture.

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, guide rails, idler pulleys, and extruder gears regularly to prevent rust.
- Use lubricating oil for guide rails, 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 with compressed air, and gently clean camera lenses using a microfiber cloth with isopropyl alcohol for optimal clarity.

The Bambu Lab AMS 2 Pro/AMS HT is an intelligent system that requires regular maintenance to ensure optimal performance and longevity.

- **PTFE Tube**: Over time, the PTFE tube can experience wear as filament passes through it, leading to feeding issues or clogs. Inspect the tube periodically for signs of damage and replace it as needed to maintain smooth filament feeding.
- **Pneumatic Connector**: If the PTFE tube becomes loose or filament struggles to pass through the pneumatic connector, try reseating the connector or replacing it to restore proper filament flow.

Regular maintenance

- **Feeder Unit**: To prevent excessive resistance during filament loading or unloading, regularly clear any residual filament dust from the feeder unit.
- **Internal Hub Unit**: To prevent excessive resistance during filament loading or unloading, regularly clear any residual filament dust from the internal hub unit.
- **Heating Unit**: Keep the heating unit clean, including the fan and heat sink, to ensure it can effectively dry filament and prevent buildup that could impair performance.
- **Active Support Shaft Assembly**: If the active support shaft assembly is misaligned or damaged, it can cause the gears to mesh improperly. If you encounter this issue, follow the provided guides from the Wiki to reinstall or replace the assembly.
- **Desiccant**: Desiccant packs help maintain a dry environment inside the AMS 2 Pro and AMS HT, and prevent filament from absorbing moisture. Periodically check the desiccant and replace it if it has lost its effectiveness.

bambulab.com/support/maintenance

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

Specifications

Item			Specification
Printer	Printing Technology		Fused Deposition Modeling
	Body	Build Volume (W*D*H)	Single Nozzle Printing: 325*320*325 mm^3 Dual Nozzle Printing: 300*320*325 mm^3 Total Volume for Two Nozzles: 350*320*325 mm^3
		Chassis	Aluminum and Steel
		Outer Frame	Plastic and Glass
	Physical Dimensions	Physical Dimensions	492*514*626 mm^3
		Net Weight	31 kg
	Toolhead	Hotend	All Metal
		Extruder Gear	Hardened Steel
		Nozzle	Tungsten Carbide
		Max Nozzle Temperature	350 ℃
		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
	Heatbed	Build Plate Material	Flexible Steel Plate
		Included Build Plate Type	Textured PEI Plate
		Supported Build Plate Type	Textured PEI plate, Smooth PEI Plate
		Max Heatbed Temperature	120 ℃
	Speed	Max Speed of Toolhead	1000 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 ℃ printing temperature)
	Chamber Temperature Control	Active Chamber Heating	Supported
		Max Temperature	65 ℃
	Air Purification	Pre-filter Grade	G3

Specifications

Printer	Air Purification	HEPA Filter Grade	H12
		Activated Carbon Filter Type	Granulated Coconut Shell
		VOC Filtration	Superior
		Particulate Matter Filtration	Supported
	Cooling	Part Cooling Fan	Closed Loop Control
		Toolhead Enhanced Cooling Fan	Closed Loop Control
		Cooling Fan for Hotend	Closed Loop Control
		Main Control Board Fan	Closed Loop Control
		Chamber Exhaust Fan	Closed Loop Control
		Chamber Heat Circulation Fan	Closed Loop Control
		Auxiliary Part Cooling Fan	Closed Loop Control
	Supported Filament Type	PLA, PETG, TPU, PVA, BVOH	Optimal
		ABS, ASA, PC, PA, PET, Carbon/ Glass Fiber Reinforced PLA, PETG, PA, PET, PC, ABS, ASA	Superior
		PPA-CF/GF, PPS, PPS-CF/GF	Ideal
	Sensor	Live View Camera	Built-in; 1920*1080
		Nozzle Camera	Built-in; 1920*1080
		Toolhead Camera	Built-in; 1920*1080
		Door Sensor	Supported
		Filament Run Out Sensor	Supported
		Filament Tangle Sensor	Supported
		Filament Odometry	Supported with AMS
		Power Loss Recovery	Supported
	Electrical Requirements	Voltage	100–120 VAC / 200–240 VAC, 50/60 Hz
		Max Power[1]	2200 W@220 V / 1320 W@110 V
	Working Temperature		10 ℃ -30 ℃
	Electronics	Touchscreen	5-inch 720*1280 Touchscreen
		Storage	Built-in 32 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 1.5 GHz ARM A7

Specifications

Printer	Electronics	Neural Processing Unit	2 TOPS
	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	Available
		Wireless Network	Wi-Fi
		Network Kill Switch	Wi-Fi and Ethernet
		Removable Network Module	Available
		802.1X Network Access Control	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
	Ethernet	Port Type	RJ45
		Speed	100 Mbps Full-Duplex
AMS 2 Pro	Body	Dimensions	372*280*226 mm^3
		Net Weight	2.5 kg
		Housing Material	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 filament that contains carbon fiber or glass fiber
		Filament Diameter	1.75 mm
		Spool Dimension	Width: 50 mm–68 mm Diameter: 197 mm–202 mm
		RFID Identification	Supported

Specifications

AMS 2 Pro	Drying	Highest Temperature	65 ℃
		Filament Supported[2]	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[3], Bambu Studio, and Bambu Handy.
	Power	Input	24 V 4 A
AMS HT	Body	Dimensions	114*280*245 mm[3]
		Net Weight	1.21 kg
		Housing Material	PC/PA
		Flame Retardant Grade	UL 94 V-0
		Screen	Supports displaying real-time temperature and humidity, and remaining drying duration.
	Printing	Filament Supported	Feeder Unit Filament Inlet: 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 Bypass Filament Outlet: TPE, generic TPU, Bambu PET-CF/TPU 95A, and other filament that contains carbon fiber or glass fiber
		Filament Not Supported	PVA (damp), BVOH (damp)
		Filament Diameter	1.75 mm
		Spool Dimension	Width: 50 mm–68 mm Diameter: 197 mm–202 mm
		RFID Identification	Supported
		Filament Odometry	Supported
	Drying	Maximum Temperature	85 ℃
		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
		Rotating Drying Mode	Supported

Specifications

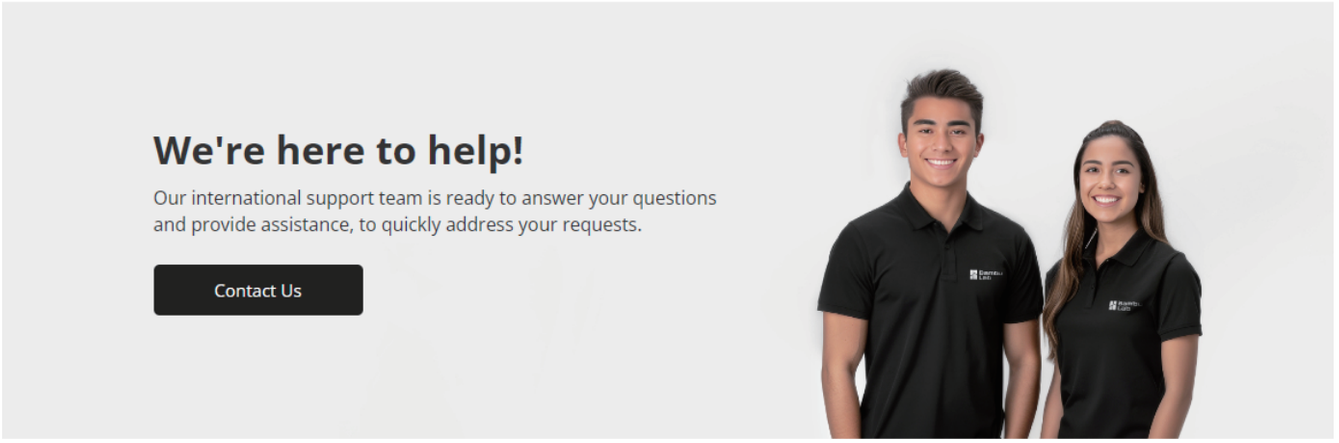
AMS HT	Drying	Sealed Storage	Supported
		Top Lid Open Detection	Supported
		Temperature, Humidity Detection and Maintenance	Supported. Real-time information can be displayed on the printer screen[3], AMS HT screen, Bambu Studio, and Bambu Handy.
		Voltage	DC: 24 V AC: 100 V–240 V~, 50 Hz/60 Hz
		Average Power	150 W

1. To ensure the heatbed quickly reaches the needed temperature, the printer will maintain maximum power for about 3 minutes.
2. Filaments marked with * require higher drying temperature. The AMS 2 Pro cannot dry them completely. If you want better drying performance for these filaments, we recommend using the AMS HT.
3. The screens of P1 series printers do not support this function.

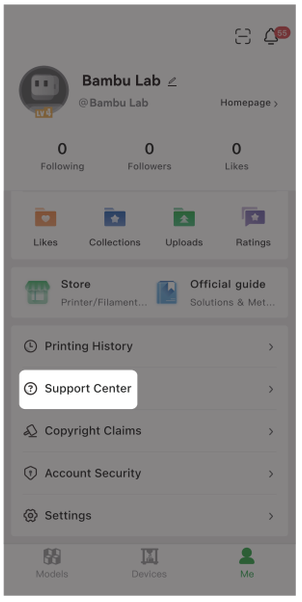
Technical Support

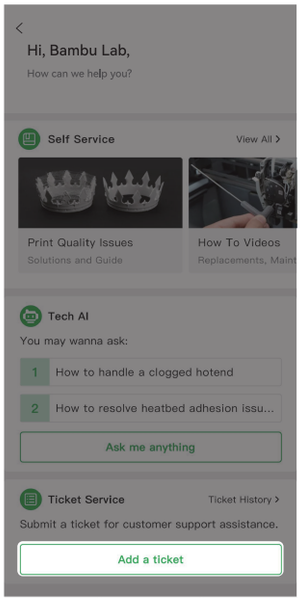
If you need technical support, please follow either of the following methods:

Method 1: Get in touch by using the Contact Us button in our Support Center.
bambulab.com/support



Method 2: Create a support ticket on Bambu Handy, from the Support Center section.





You can also visit the Bambu Lab Wiki for more tutorials and maintenance guidance.
wiki.bambulab.com/home

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www.bambulab.com