

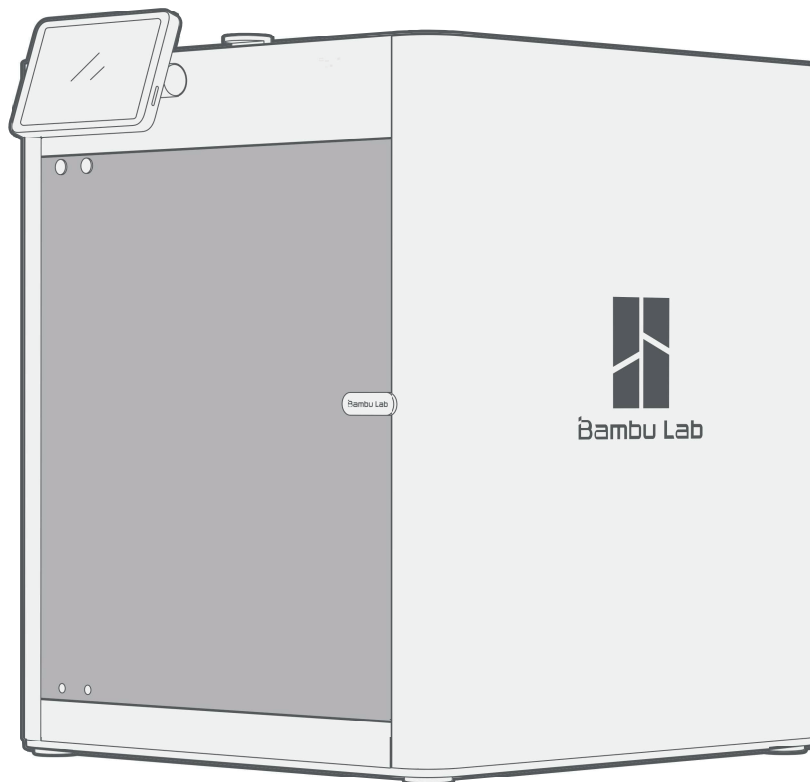
# Bambu Lab X1-Carbon

## 3D Printer

### Quick Start

Please review the entire guide before operating the printer.

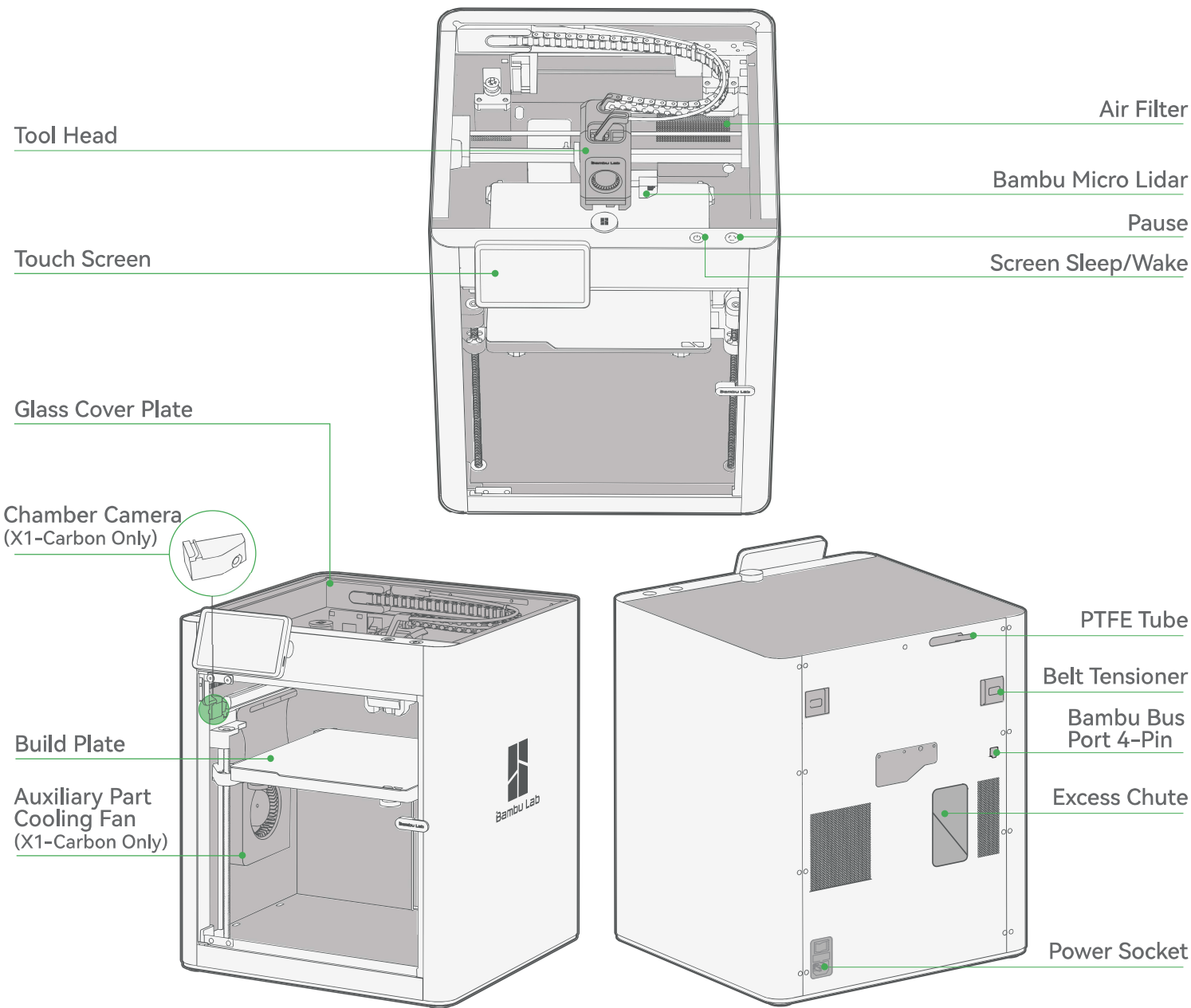
\* Safety Notice: Do not connect to power until assembly is complete.





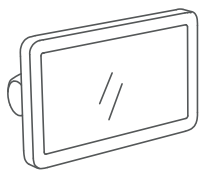
**Bambu Studio & Bambu Handy**  
<https://bambulab.com/download>

# Component Introduction

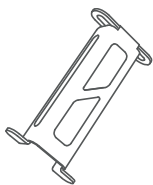


# Accessory Specification

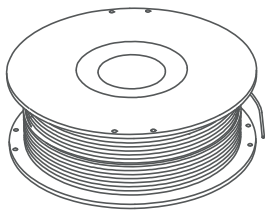
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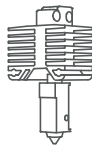
Touch Screen



Spool Holder



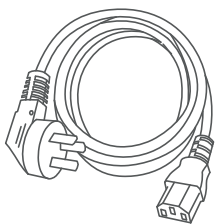
250g Filament



Spare Hot End



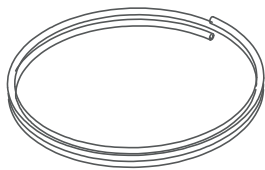
Nozzle Wiping Pad (x2)



Power Cord



Unclogging Pin Tool



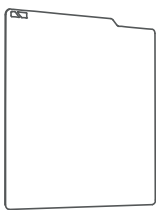
PTFE Tube



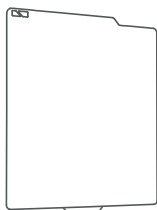
Allen Key H1.5  
Allen Key H2



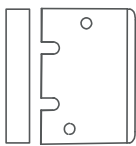
Glue Stick for  
Build Plate



Spare Sheet for  
Bambu Cool Plate (x2)



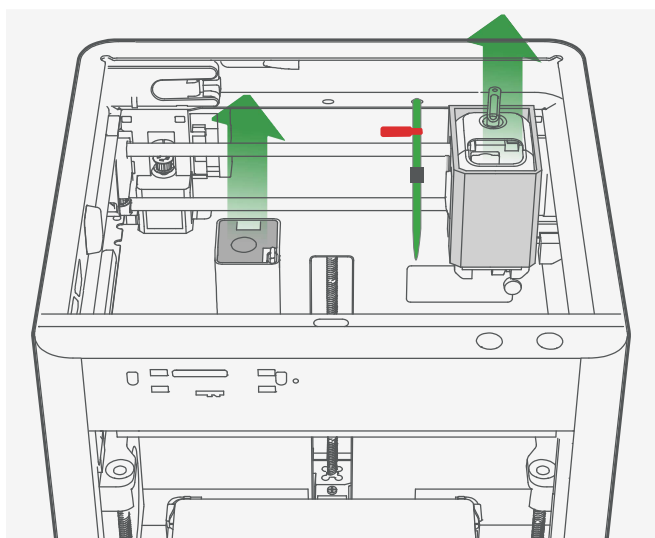
Flexible Build Plate  
(Pre-installed on  
build plate)



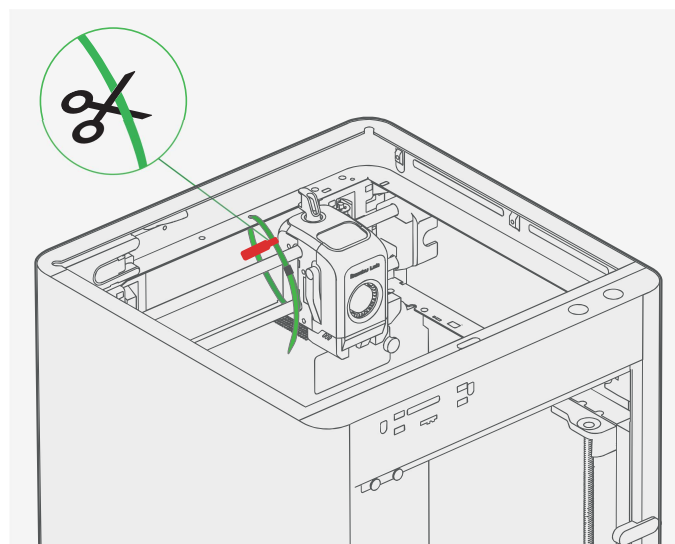
Bambu Scraper

## Tool Head Unlock

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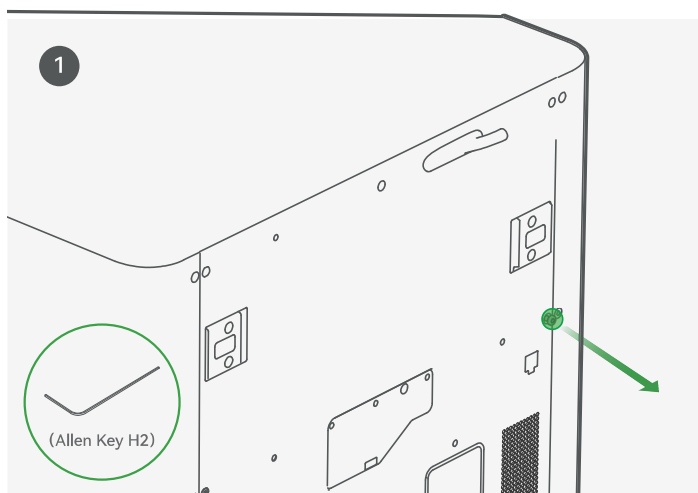
Remove the cardboard from the tool head.  
Remove the foam from the excess chute.



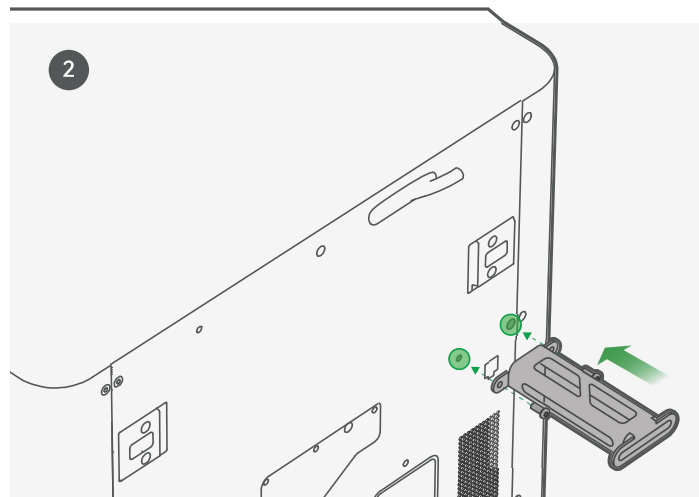
Cut the zip tie securing the toolhead.

## Spool Holder Assembly

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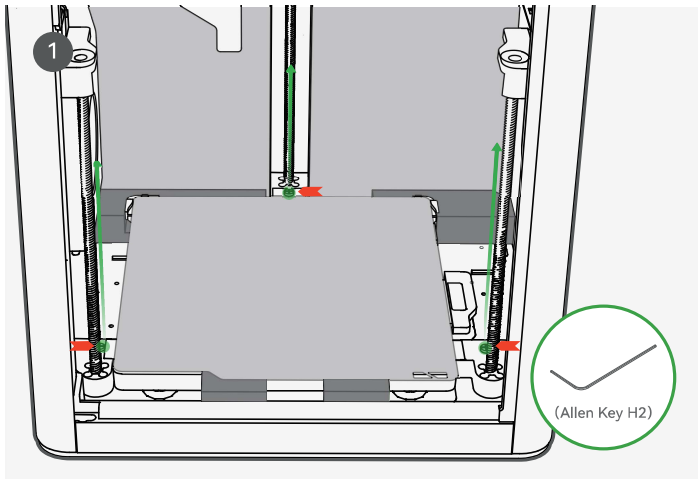
Remove the screw as pictured with an Allen Key H2.



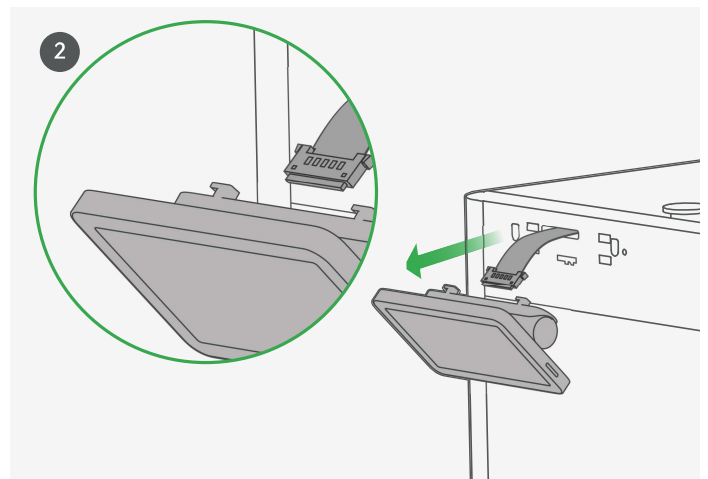
Secure the spool holder with two screws from the accessory box.

\*We recommend using the short end of the Allen Key to unlock the screws more easily.

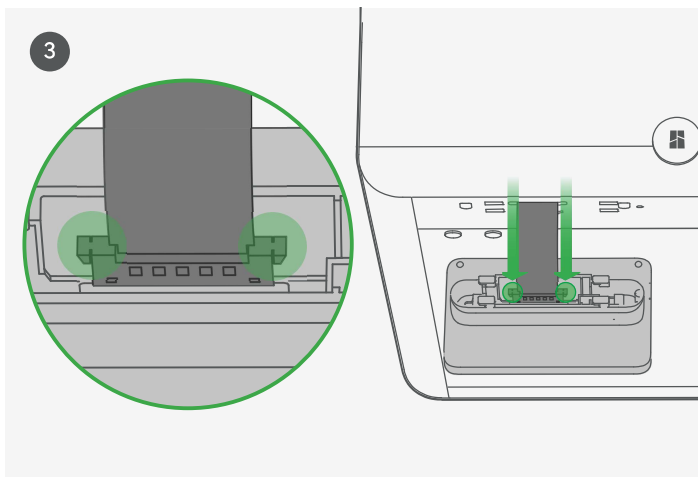
## Hot Bed Unlock & Screen Installation



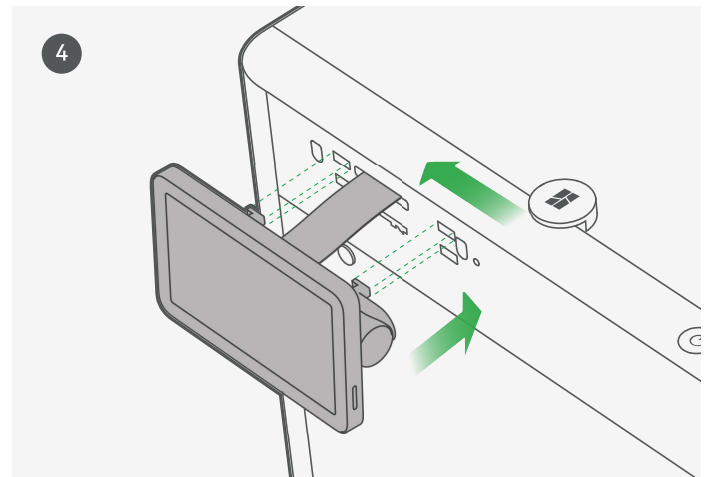
Remove the three screws with an Allen Key H2 to unlock the hot bed.



Pull the Flexible Printed Circuit (FPC) out about 50mm.



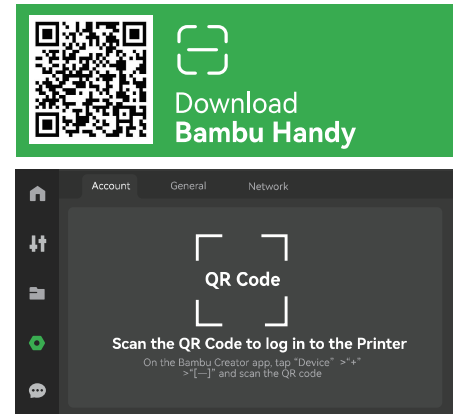
Insert the FPC into the port by pressing the terminal as pictured.



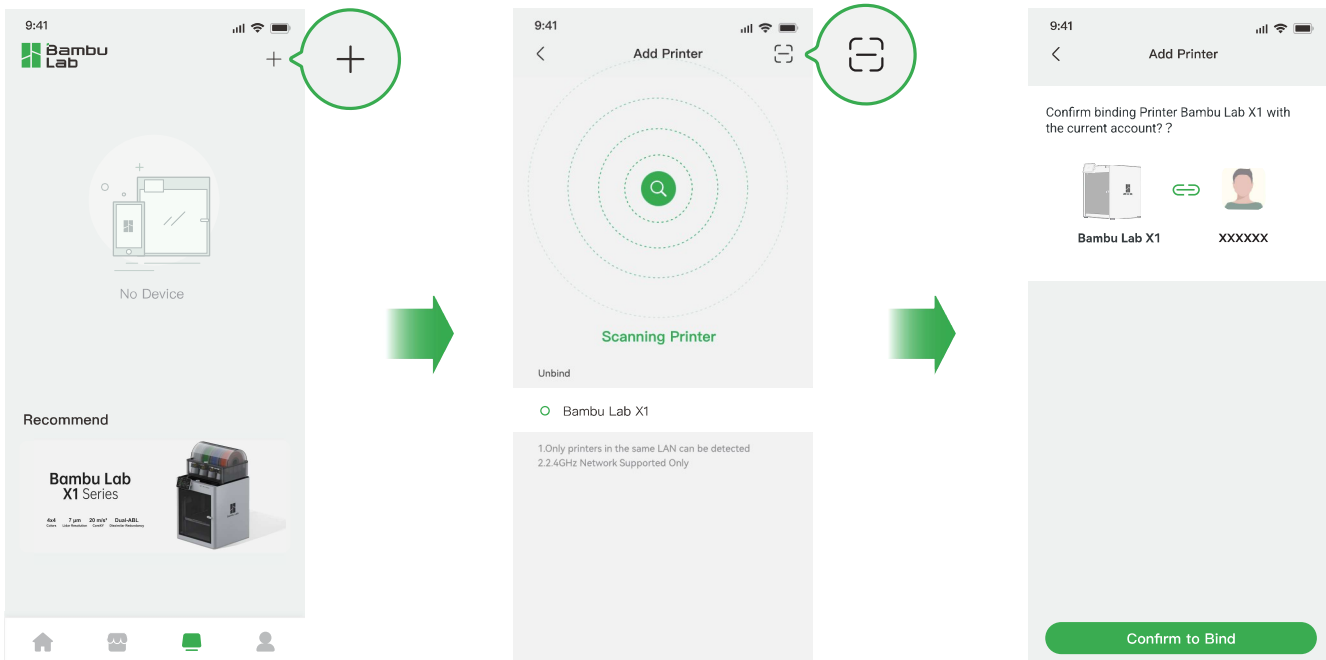
Insert the screen back to the slot on the printer, then lock it by pushing it to the left.

## Printer Binding

1. Download the Bambu Handy App. Register and log in to your Bambu Lab account.
2. Connect the printer to power. Follow the instructions on the screen until getting to the page shown on the right side.

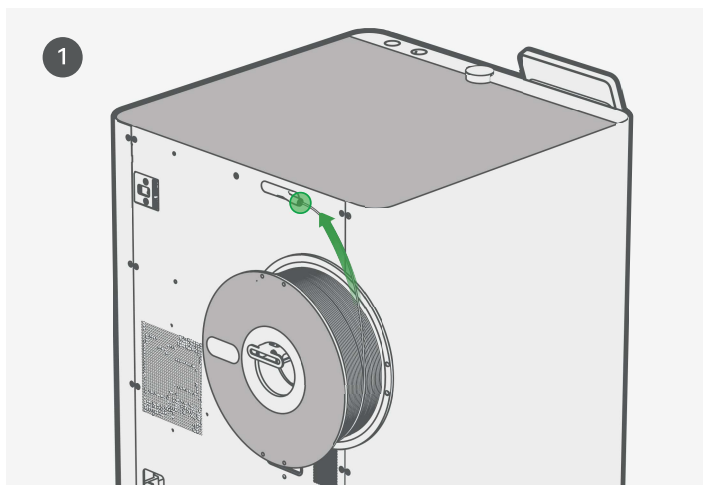


3. Use Bambu Handy to scan the QR code on the screen, and bind your printer with your Bambu Lab account.

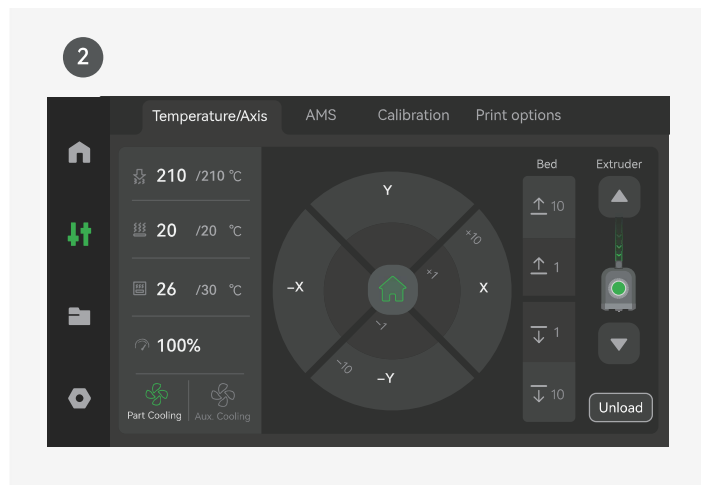


4. Follow the instructions on the screen to complete the initial calibration.  
It is normal to have vibration and noise during the calibration process.  
**DO NOT** remove the protective foam from beneath the hot bed until after the initial calibration is complete.

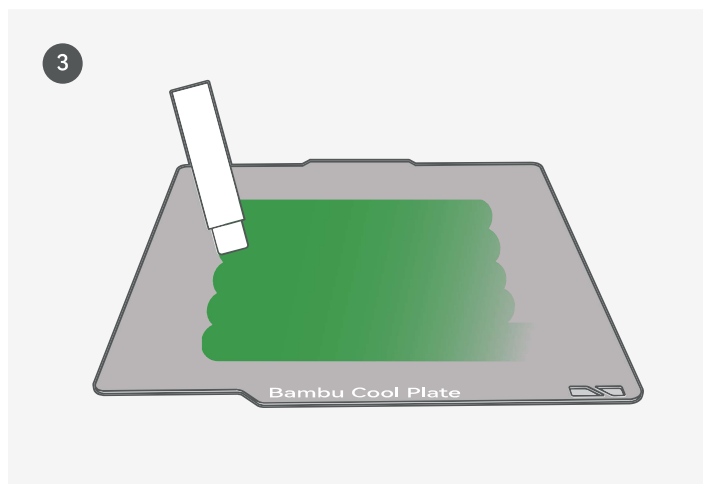
## First Print



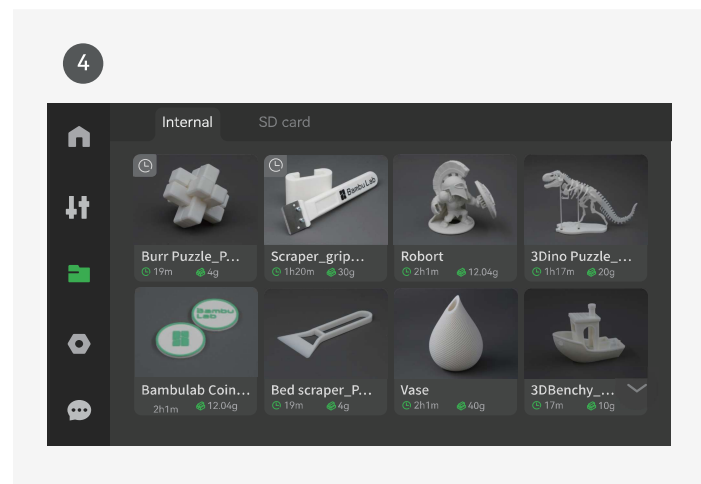
Insert the filament into the PTFE Tube. Keep pushing the filament until it can not move forward.  
\*We recommend using the supplied Bambu PLA Basic for your first test print.



Press "↑↑" - "🏠", and heat the nozzle to the recommended temperature for the filament. Press "Extruder" - "▼" several times until the filament comes out from the nozzle and cannot be pulled out from the PTFE tube manually.



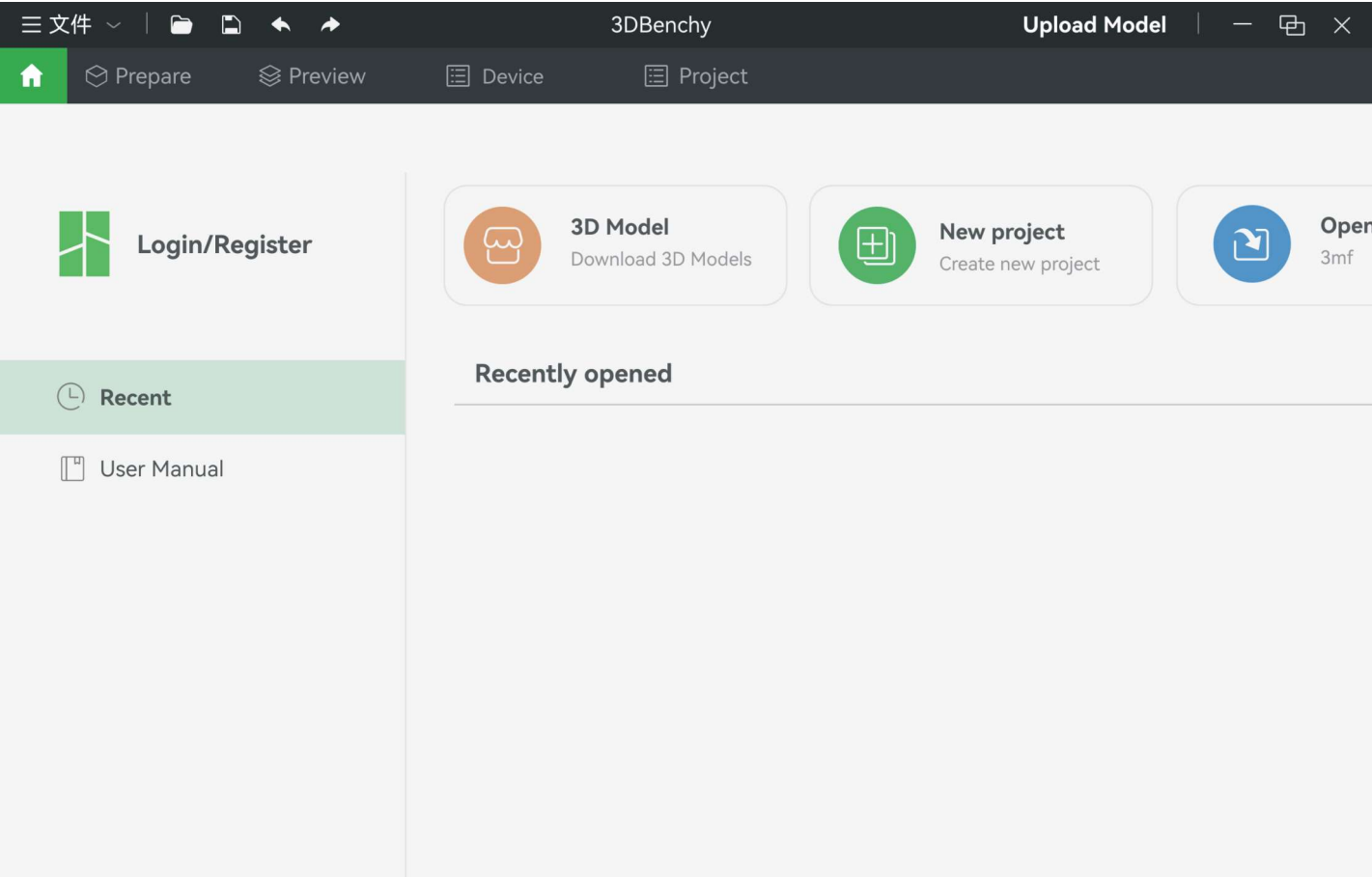
Apply a thin layer of glue on the build plate.



Press "📁" - "internal". Select a file to start the first print.  
\*We recommend using one of the pre-loaded files as a first test print.

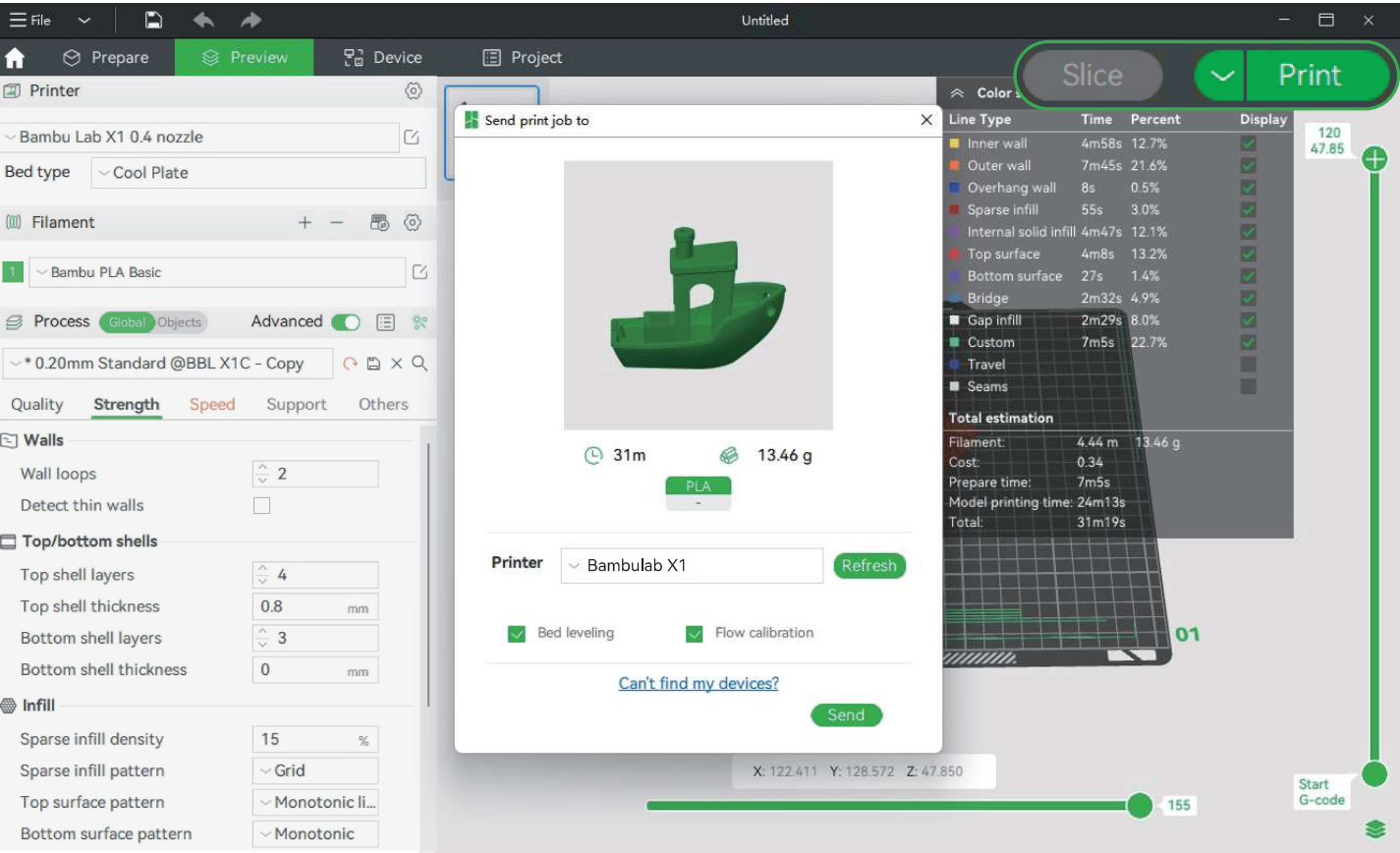
# Bambu Studio

Download Bambu Studio: <http://bambulab.com/download>



Log in to Bambu Studio with your Bambu Lab account, which is the same for the Bambu Online store. Create or open a project.

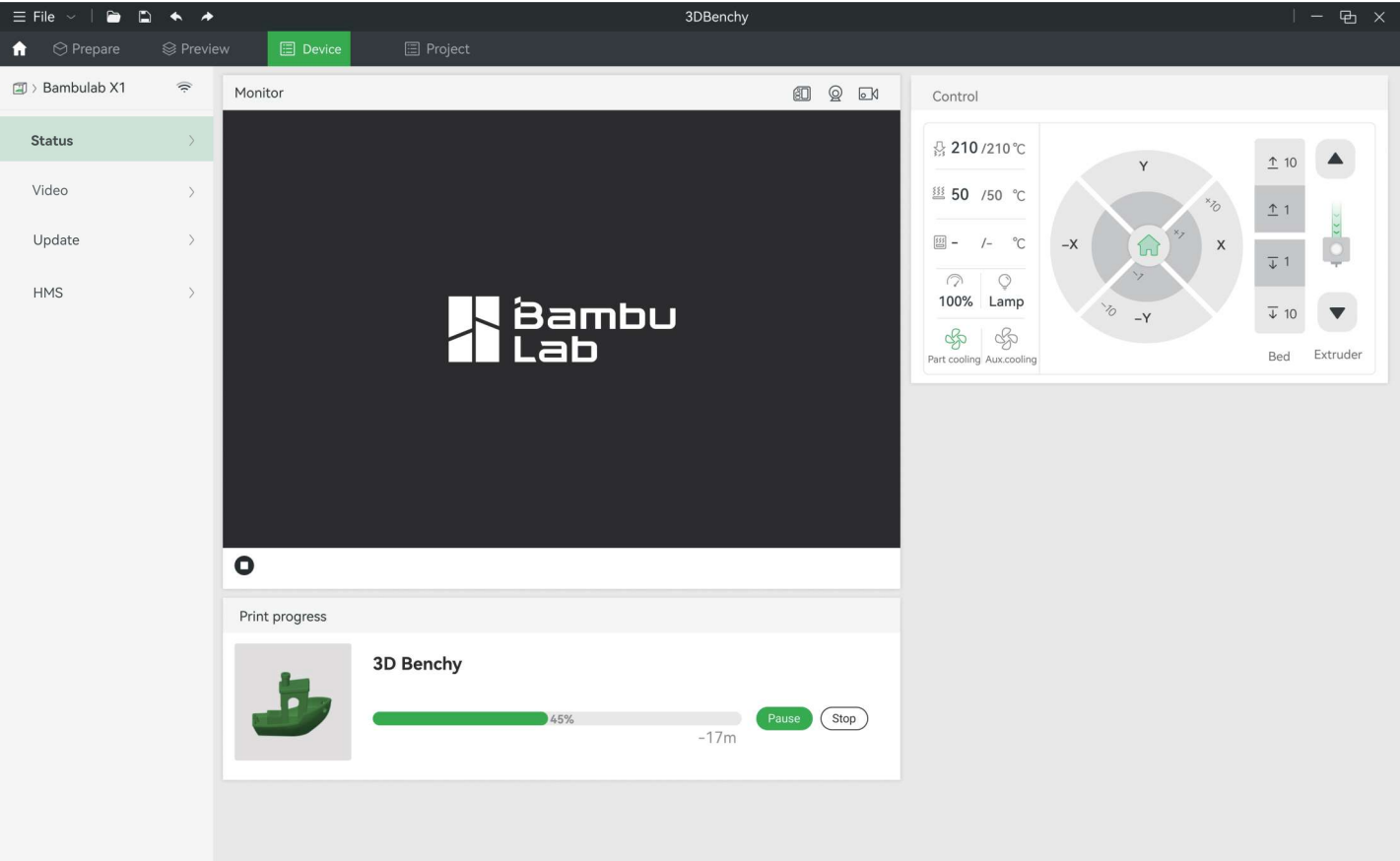
# Bambu Studio



Slice the model, select your printer and send the model to print.

\*We recommend performing bed leveling before each print and performing flow calibration after changing filament.

# Bambu Studio



During printing, you can remotely monitor your print, or pause/stop printing on the "Device" interface.

\*The live view can be seen only if a camera is mounted.

Specification

| Item                |                                       | Specification                             |
|---------------------|---------------------------------------|-------------------------------------------|
|                     |                                       | X1-Carbon                                 |
| Printing Technology |                                       | Fused Deposition Modeling                 |
| Body                | Build Volume(W*D*H)                   | 256*256*256 mm <sup>3</sup>               |
|                     | Chassis                               | Steel                                     |
|                     | Shell                                 | Aluminum & Glass                          |
| Toolhead            | Hot End                               | All-Metal                                 |
|                     | Extruder Gears                        | Hardened Steel                            |
|                     | Nozzle                                | Hardened Steel                            |
|                     | Max Hot End Temperature               | 300°C                                     |
|                     | Nozzle Diameter (Included)            | 0.4 mm                                    |
|                     | Nozzle Diameter (Optional)            | 0.2 mm, 0.6 mm, 0.8 mm                    |
|                     | Filament Cutter                       | Yes                                       |
|                     | Filament Diameter                     | 1.75 mm                                   |
| Heatbed             | Build Plate                           | Flexible Steel Plate                      |
|                     | Build Plate Surface(Included)         | Bambu Cool Plate, Bambu Engineering Plate |
|                     | Build Plate Surface (Optional)        | Bambu High Temperature Plate              |
|                     | Max Build Plate Temperature           | 110°C@220V, 120°C@110V                    |
| Speed               | Max Speed of Toolhead                 | 500 mm/s                                  |
|                     | Max Acceleration of Toolhead          | 20 m/s <sup>2</sup>                       |
|                     | Max Hot End Flow                      | 32 mm <sup>3</sup> /s @ABS                |
| Cooling             | Part Cooling Fan                      | Closed Loop Control                       |
|                     | Hot End Fan                           | Closed Loop Control                       |
|                     | Control Board Fan                     | Closed Loop Control                       |
|                     | Chamber Temperature Regulator Fan     | Closed Loop Control                       |
|                     | Auxiliary Part Cooling Fan            | Closed Loop Control                       |
|                     | Air Filter                            | Activated Carbon Filter                   |
| Supported Filament  | PLA, PETG, TPU,ABS,ASA,PVA,PET        | Ideal                                     |
|                     | PA, PC                                | Ideal                                     |
|                     | Carbon/Glass Fiber Reinforced Polymer | Ideal                                     |
| Sensors             | Bambu Micro Lidar                     | Yes                                       |
|                     | Chamber Monitoring Camera             | 1920*1080 Included                        |
|                     | Door Sensor                           | Yes                                       |
|                     | Filament Run Out Sensor               | Yes                                       |
|                     | Filament Odometry                     | Optional with AMS                         |
|                     | Power Loss Recover                    | Yes                                       |

|                         |                                |                                   |                                                                                                                                                                         |
|-------------------------|--------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical Dimensions     | Dimensions                     |                                   | 389*389*457mm <sup>3</sup>                                                                                                                                              |
|                         | Net Weight                     |                                   | 14.13kg                                                                                                                                                                 |
| Electrical Requirements | Voltage                        |                                   | 100-240 VAC, 50/60 Hz                                                                                                                                                   |
|                         | Max Power                      |                                   | 1000W@220V, 350W@110V                                                                                                                                                   |
| Electronics             | Display                        |                                   | 5-inch 1280*720 Touch Screen                                                                                                                                            |
|                         | Connectivity                   |                                   | Wi-Fi, Bambu Bus                                                                                                                                                        |
|                         | Storage                        |                                   | 4GB EMMC and Micro SD Card Reader                                                                                                                                       |
|                         | Control Interface              |                                   | Touch Screen, APP, PC Application                                                                                                                                       |
|                         | Motion Controller              |                                   | Dual-Core Cortex M4                                                                                                                                                     |
|                         | Application Processor          |                                   | Quad ARM A7 1.2 GHz                                                                                                                                                     |
|                         | Neural-Network Processing Unit |                                   | 2 Tops                                                                                                                                                                  |
| Software                | Slicer                         |                                   | Bambu Studio<br>Support third party slicers which export standard G-code such as Superslicer, Prusaslicer and Cura, but certain advanced features may not be supported. |
|                         | Slicer Supported OS            |                                   | MacOS, Windows                                                                                                                                                          |
| Wifi                    | Frequency Range                |                                   | 2400MHz-2483.5MHz                                                                                                                                                       |
|                         | Transmitter Power (EIRP)       |                                   | ≤ 21.5dBm(FCC)<br>≤ 20 dBm (CE/SRRC)                                                                                                                                    |
|                         | Protocol                       |                                   | 802.11b/g/n                                                                                                                                                             |
| Laser (Either)          | Laser (CLASS 1)                | Wavelength                        | 850nm、850nm                                                                                                                                                             |
|                         |                                | Maximun Output of Laser Radiation | <0.778mW                                                                                                                                                                |
|                         | Laser (CLASS 2)                | Wavelength                        | 405nm、808nm                                                                                                                                                             |
|                         |                                | Maximun Output of Laser Radiation | <1mW                                                                                                                                                                    |



**Bambu Studio**  
**Bambu Handy**

<https://bambulab.com/download>

## Customer Support

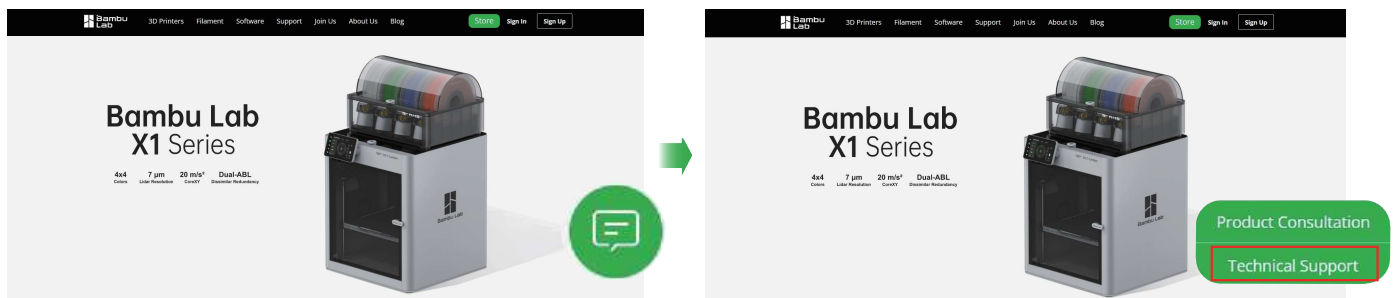
Please visit the Bambu Lab Wiki for more setup and maintenance tutorials.

<https://wiki.bambulab.com/en/home>

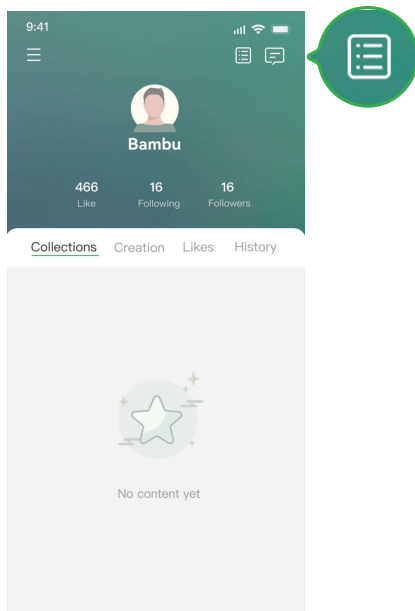


If you need support, please try either of the two approaches:

### Approach 1: Create a support ticket on the Official Website



### Approach 2: Create a support ticket on the Bambu Handy App





**Bambu Lab**

**Enjoy!**

[www.bambulab.com](http://www.bambulab.com)