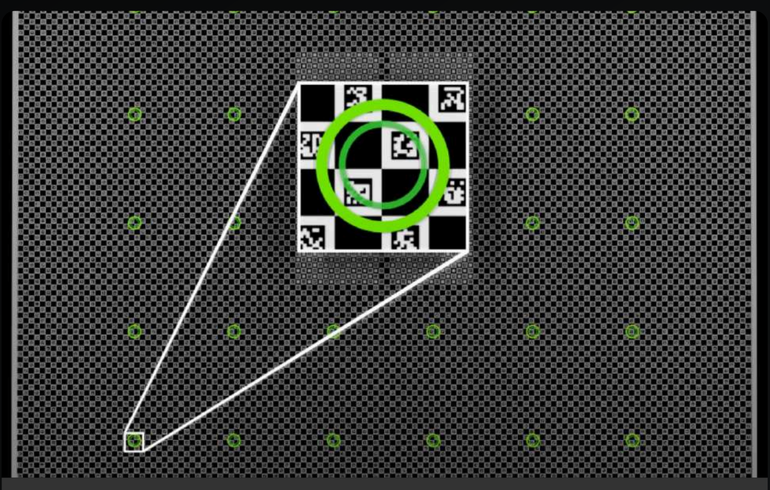
Bambu Lab H2S

Your Personal Manufacturing Hub

Bambu Lab 2nd-Gen 3D Printing Technology

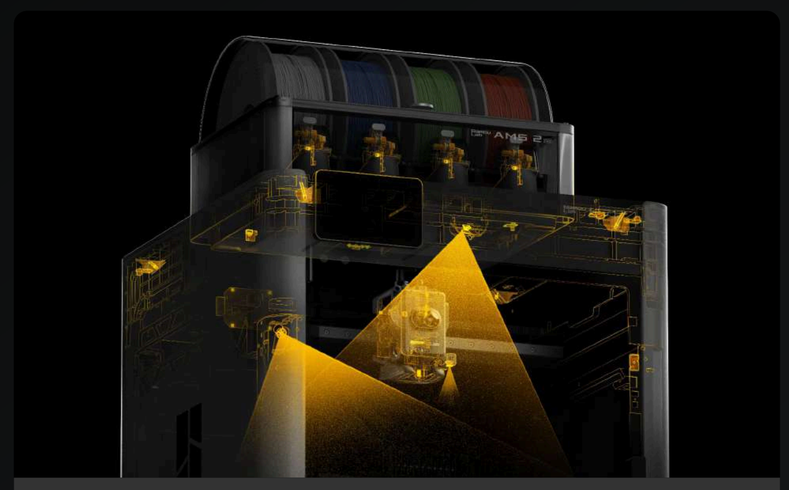
Real Servo Motor Extruder

Bambu Lab's proprietary servo motor boosts extrusion force by **67%**, enabling high-speed printing without under-extrusion.



Under 50 µm Motion Accuracy

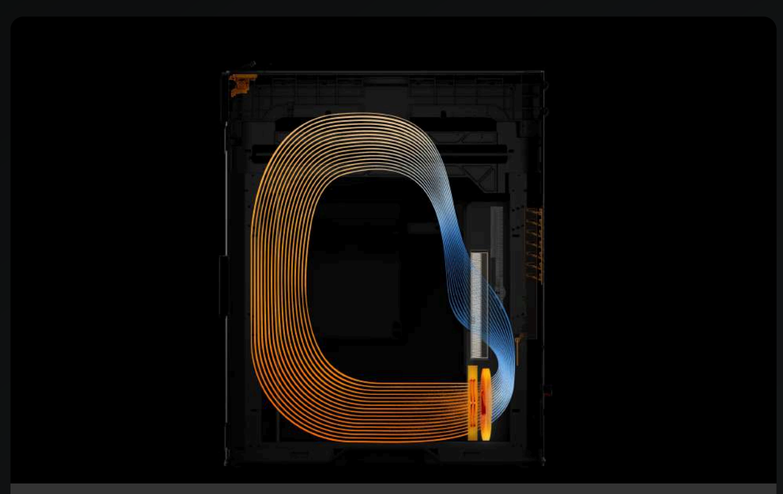
Vision Encoder ensures **motion accuracy under 50 µm**, automatically compensating for mechanical drift for lasting precision.



Full Filament Path AI Detection

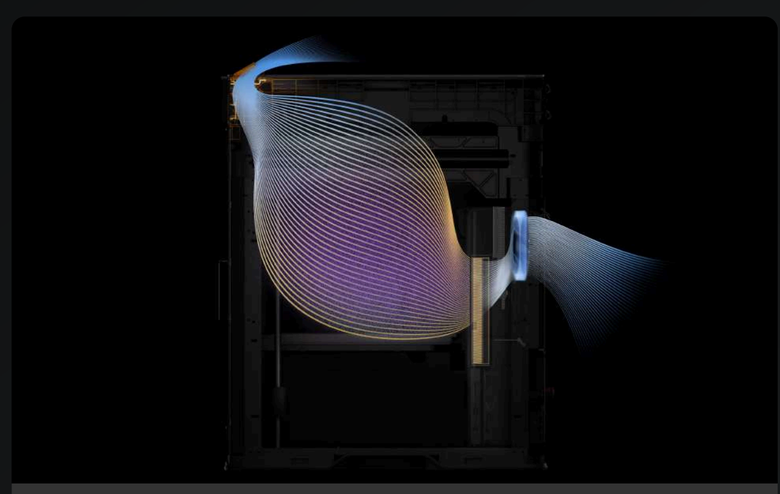
With **23 sensors and 3 cameras**, H2S tracks flow, temperature, filament usage. Liveview detects spaghetti and foreign objects.

Flap Switch Airflow & Filtration System



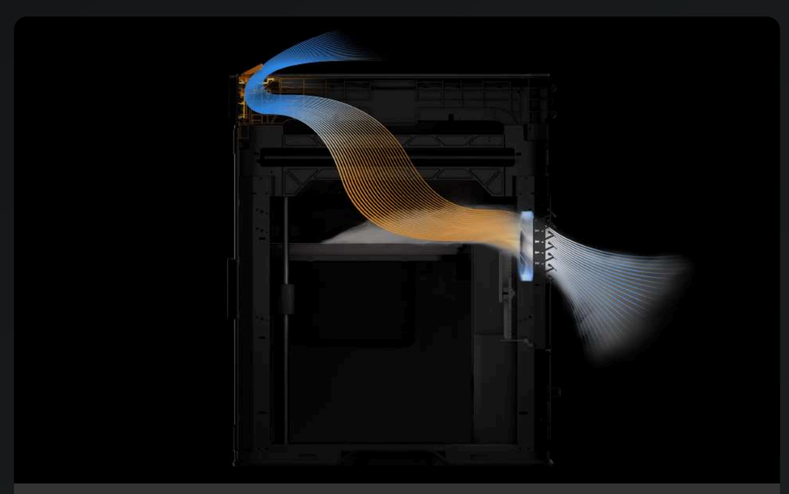
High-Temp Printing

Sealed chamber recirculates heated, filtered air for **stable high-temp conditions**. Print large engineering parts warp-free.



Low-Temp Printing

Top Vent brings in cool air with **filtered exhaust**[1]. Print PLA/PETG and handle overhangs without opening doors.



Laser Cutting/Engraving

Top Vent and Filter Switch Flap open to **channel fumes efficiently**, keeping your workspace safe and clean.

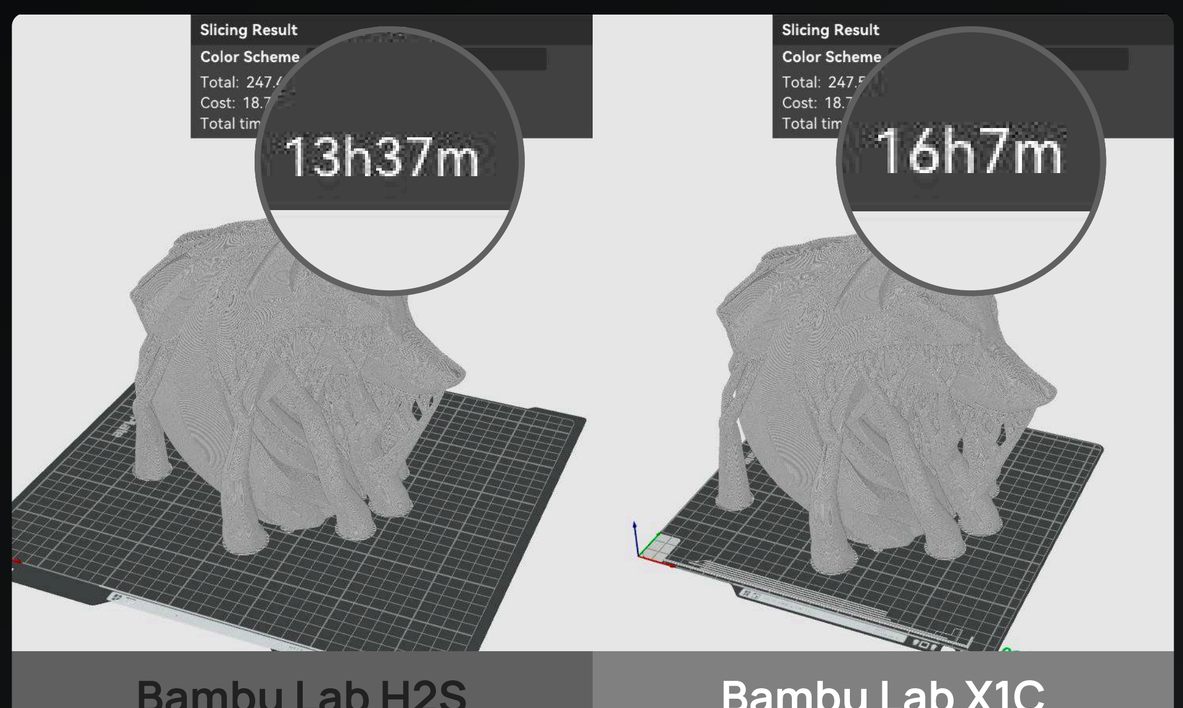
The Largest Printing Volume

With a build volume of **340×320×340 mm³**–120% more volume than X1C–the H2S offers the largest print space among all Bambu Lab printers.

Top-of-the-Tier Specs

350 °C Hotend and 65 °C Actively Heated Chamber

Supports all Bambu Lab filaments from PLA to PPA. Closed-loop fan control **minimizes warping and boosts layer adhesion**.



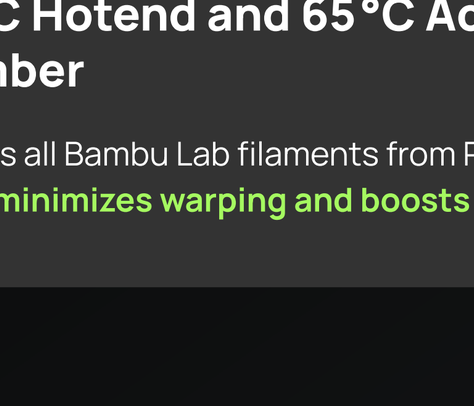
Bambu Lab H2S | Bambu Lab X1C

Up to 1000 mm/s Toolhead Speed and 20,000 mm/s² Acceleration

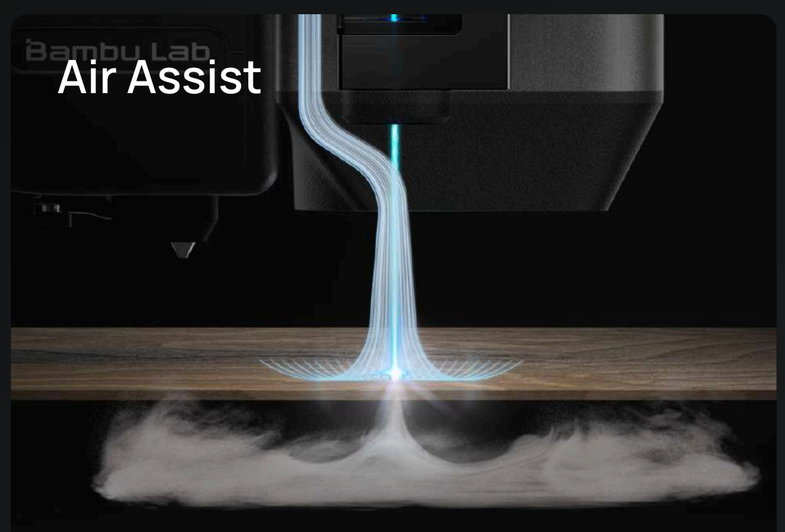
High Flow Nozzle cuts print time by **10–30%**[2] with speeds up to 1000 mm/s and 20,000 mm/s² acceleration.

Reliable Multi-Function Performance

Bambu Suite Auto Arrangement

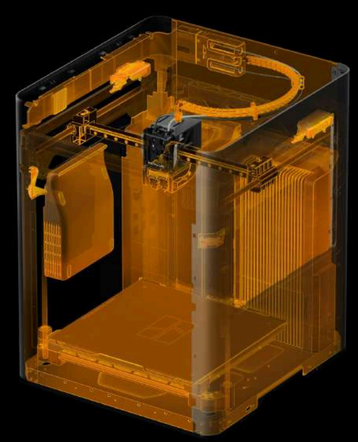


Air Assist



Laser Safety Window

Flame-Retardant Chamber



5 Flame Sensors

Emergency Stop

10W 455nm Laser Cutting, Digital Cutting & Drawing

Live Spatial Alignment

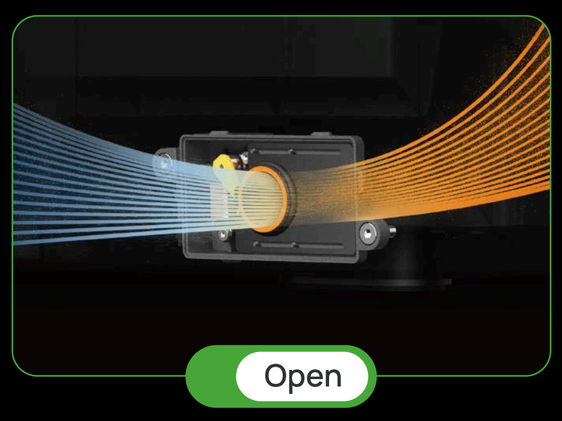
1. Filter Mode for low-temperature printing is optional and will be available in Q4 2025.
2. When using Bambu Lab PLA Basic to print a 200×200×200 mm cube with 15% infill, the printing time can be reduced by up to 30% compared to Bambu Lab X1C. Actual time savings may vary depending on the model, infill, and filament used.

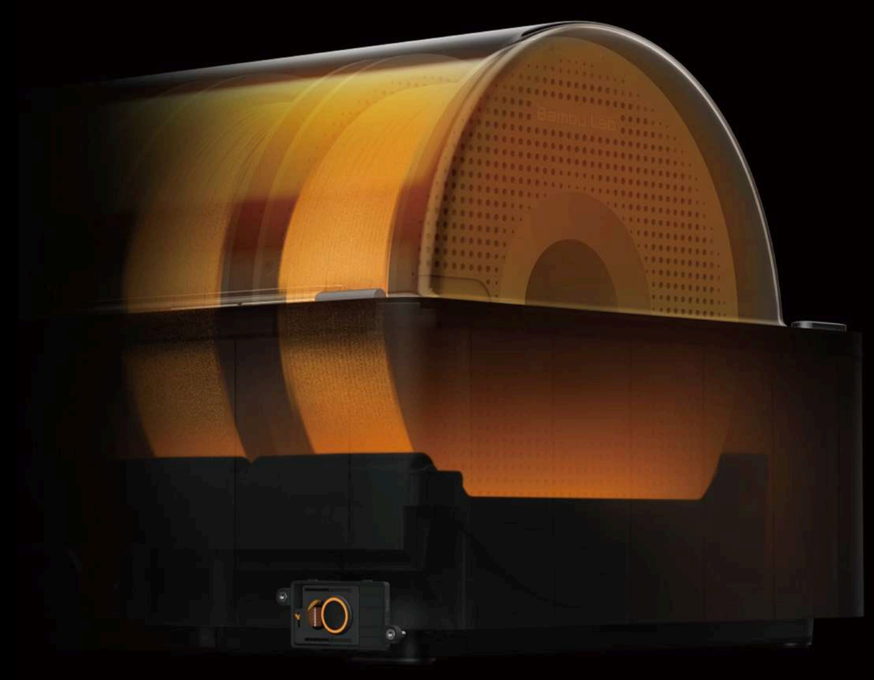
Fully Evolved AMS

Dry Filament Quickly and Intelligently

Active Air Vent

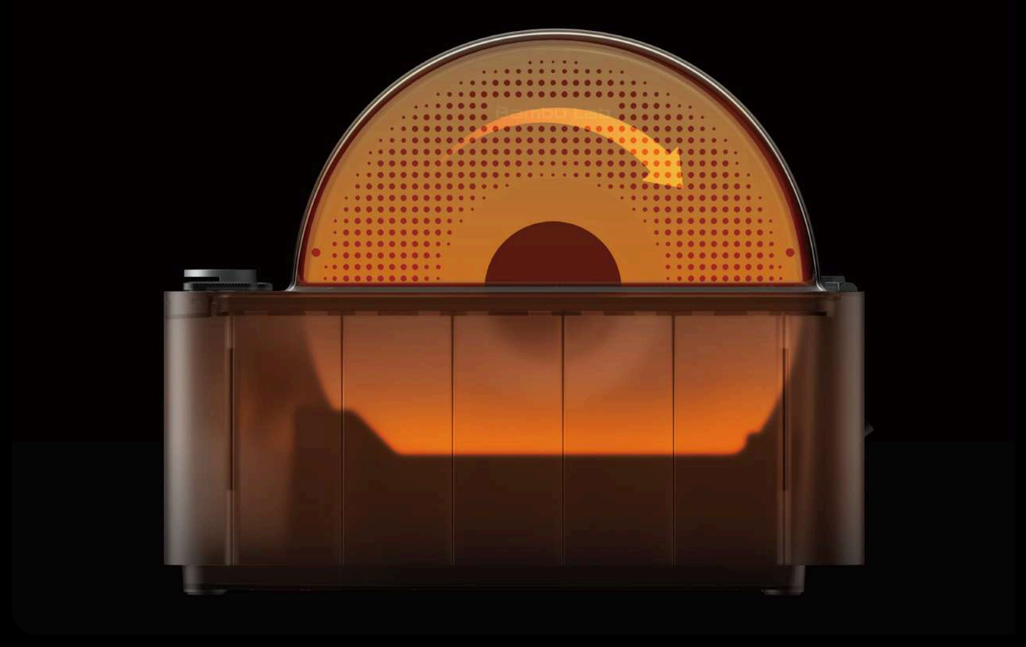
Automated venting facilitates dehumidification during drying and airtight sealing for weeks of quality printing.





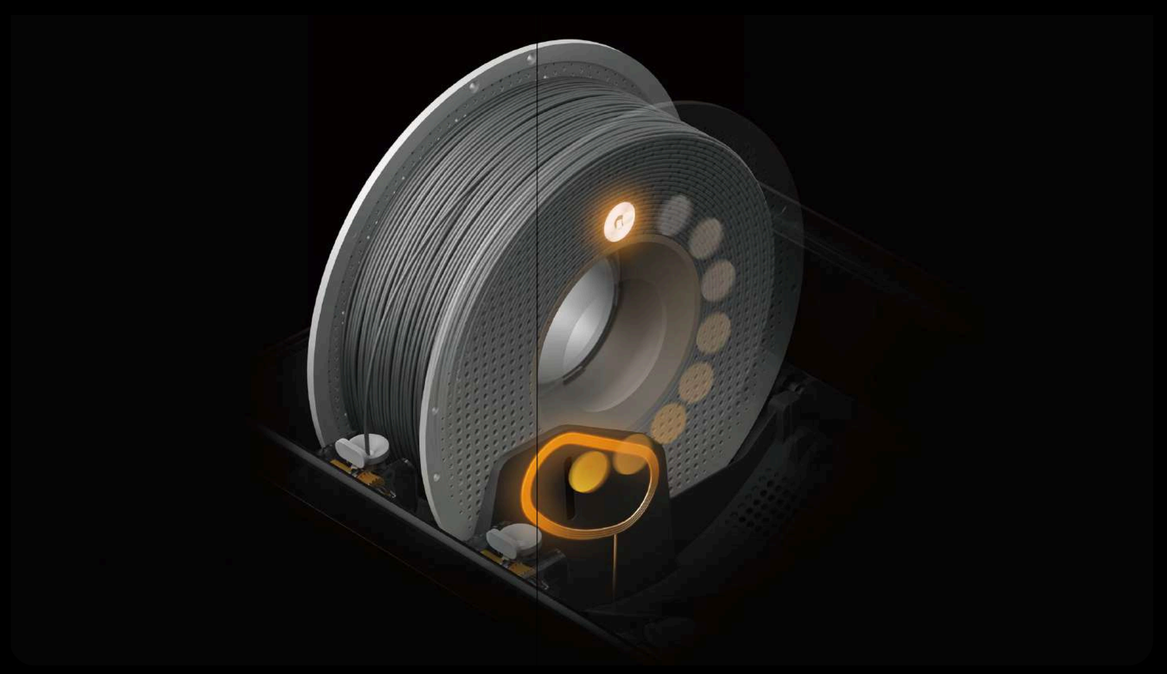
Auto-Rotate Drying

During the drying process, the filament spools rotate automatically to ensure more even drying.



RFID Sync

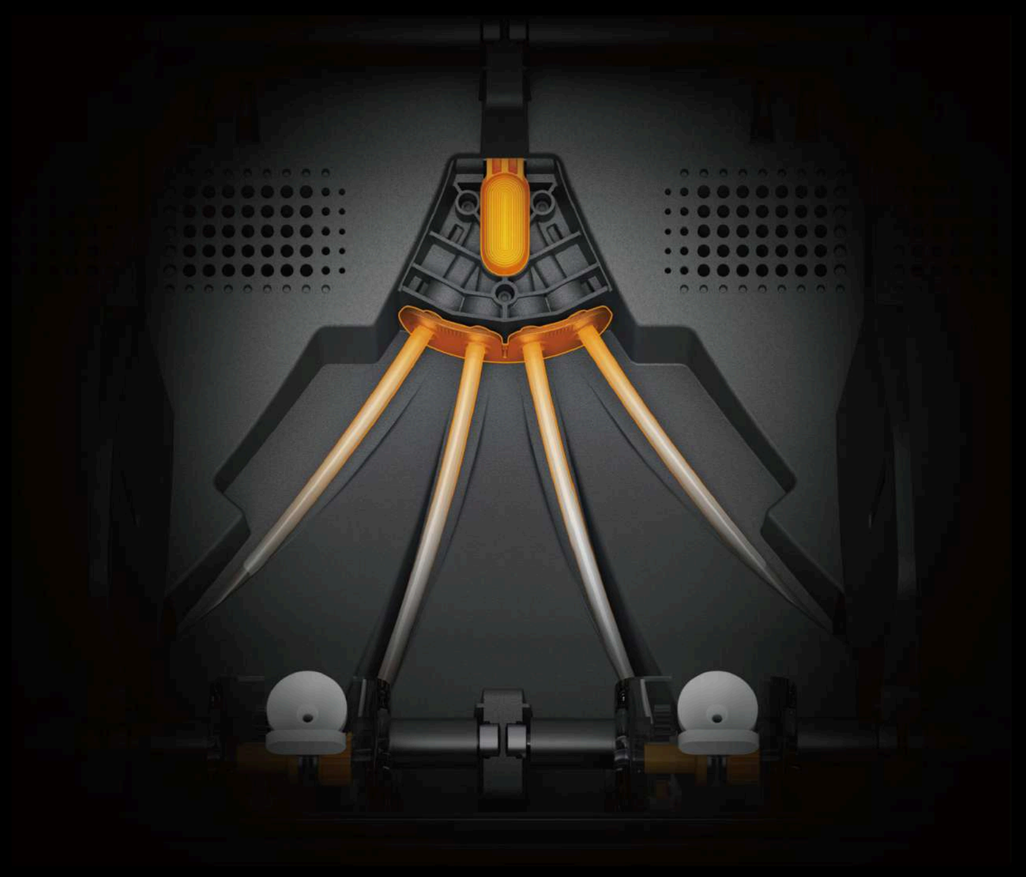
AMS 2 Pro uses RFID to auto-match drying settings for Bambu official filaments, no manual input needed.



Evolved, Polished Design Details

Easy-access Guide Rails

See-through filament guide rails and a quick-release feeding mechanism make removing stuck filament quicker and easier



Ceramic Inlet

Ceramic filament inlet, offering increased durability.

H2S & H2S Laser Edition Spec Sheet

Item		Specification
Printing Technology		Fused Deposition Modeling
Body	Build Volume (W*D*H)	340*320*340 mm^3
	Chassis	Aluminum and Steel
	Outer Frame	Plastic and Glass
Physical Dimensions	Physical Dimensions	492*514*626 mm^3
	Net Weight	30 kg
Toolhead	Extruder Gear	Hardened Steel
	Nozzle	Hardened Steel
	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 (Standard Flow 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
	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
	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
Filament Supported		PLA, PETG, TPU, PVA, BVOH, ABS, ASA, PC, PA, PET, PPS; Carbon/Glass Fiber Reinforced PLA, PETG, PA, PET, PC, ABS, ASA, PPA, PPS
Sensor	Live View Camera	Built-in; 1920*1080
	Toolhead Camera	Built-in; 1600*1200
	BirdsEye Camera[1]	Built-in; 3264*2448
	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[2]	2050 W@220 V / 1170 W@110 V
Working Temperature		10 ℃-30 ℃
Electronics	Touchscreen	5-inch 720*1280 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 1.5 GHz ARM A7
	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	Not Available
	Wireless Network	Wi-Fi
	Network Kill Switch	Not Available
	Removable Network Module	Not Available
	802.1X Network Access Control	Not Available
Wi-Fi	Operating Frequency	2412-2472 MHz (CE/FCC), 2400-2483.5 MHz (SRRC) 5150-5850 MHz
	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]The BirdsEye Camera comes standard with the H2S Laser Edition, or can be added via the Laser Upgrade Kit.
[2] To ensure the heatbed quickly reaches the needed temperature, the printer will maintain maximum power for about 3 minutes.

10W Laser Module Spec	Laser Type	Semiconductor Laser
	Laser Wavelength	Engraving Laser: 455 nm ± 5 nm Blue Light Height Measuring Laser: 850 nm ± 5 nm Infrared Light
	Laser Power	10 W ± 1 W
	Laser Spot Dimension	0.03 * 0.14 mm^2
	Working Temperature	0 ℃–35 ℃
	Max Engraving Speed	400 mm/s
	Max Cutting Thickness	5 mm (Basswood Plywood)
	Laser Safety Class for Laser Module	Class 4
	Overall Laser Safety Class*	Class 1
	Engraving Area	H2D: 310 * 270 mm^2 H2S: 310 * 260 mm^2
	XY Positioning Method	Visual Positioning
	XY Positioning Accuracy	< 0.3 mm
	Z Height Measuring Method	Micro Lidar
	Z Height Measuring Accuracy	± 0.1 mm
	Flame Detection	Supported
	Temperature Detection	Supported
	Door Sensor	Supported
	Laser Module Installation Detection	Supported
	Safety Key	Included
	Air Pump	Built-in; 30 kPa, 30 L/min
	Ventilation Pipe Adapter Outer Diameter	100 mm
	Supported Material Type	Wood, rubber, metal sheet, leather, dark acrylic, stone, and more
Cutting Module Spec	Cutting Area	H2D：300*285 mm^2 H2S：297.5*300 mm^2
	Drawing Area	300*255 mm^2
	Supported Pen Diameter	10.5 mm–12.5 mm
	Cutting Mat Type	LightGrip and StrongGrip Cutting Mats
	Blade Type	45°*0.35 mm
	Blade Pressure Range	50 gf–600 gf
	Max Cutting Thickness	0.5 mm
	Blade and Pen Recognition	Supported
	Cutting Mat Type Detection	Supported
	Supported Image Type	Bitmap and Vector Images
	Supported Material Type	Paper, PVC, vinyl, leather, and more

* When the printer's protection is complete and properly working, the printer and laser module work as a class 1 laser product.