

Bambu Lab H2D

Rethink Personal Manufacturing



All-In-One Personal Manufacturing Hub

Modular Toolhead



3D Printing



Laser



Blade Cutting



Drawing

A Hard Core Laser Machine

High Power 455nm Laser



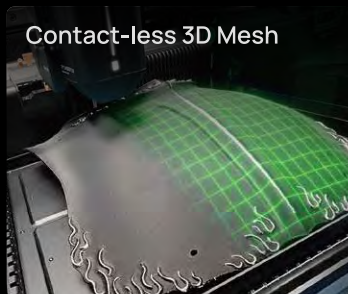
Rotary Attachment



Air Assist



Contact-less 3D Mesh



Laser Safety Windows

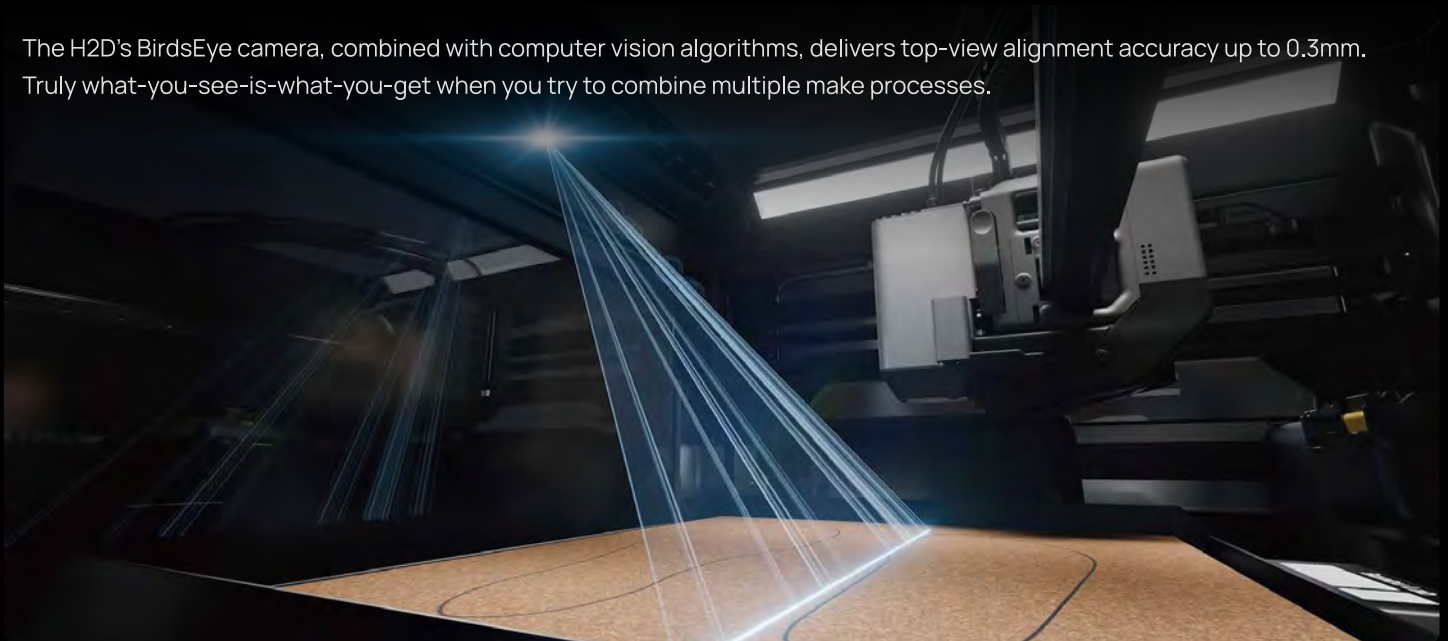


Air Purifier



Alignment to Link Multi-Process

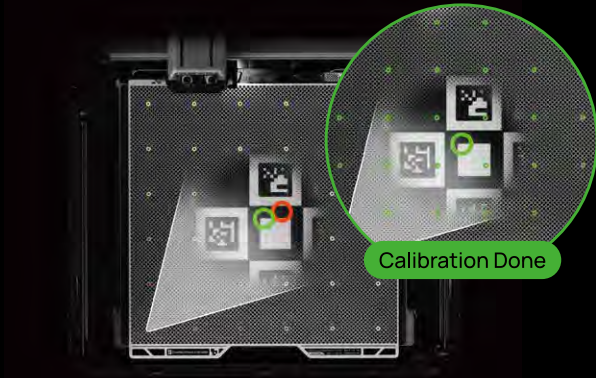
The H2D's BirdsEye camera, combined with computer vision algorithms, delivers top-view alignment accuracy up to 0.3mm. Truly what-you-see-is-what-you-get when you try to combine multiple make processes.



The Most Powerful Bambu Lab Printer

50µm Motion Accuracy

A Vision Encoder plate, combined with 5µm resolution optical measurements to track and correct toolhead motion, enables reliable distance-independent 50µm motion accuracy.



DynaSense Extruder

Bambu Lab's proprietary PMSM servo architecture executes 20kHz Torque/Resistance and Position sampling to modulate torque vectors. Stabilizing extrusion and detecting filament grinding and clogging.



Dual-Nozzle

Multi-Material

Flexible and rigid, low cost and exotic material in one print.



Support Printing

Perfect supports with minimal waste, purging and reloading.



Faster Multi-Color

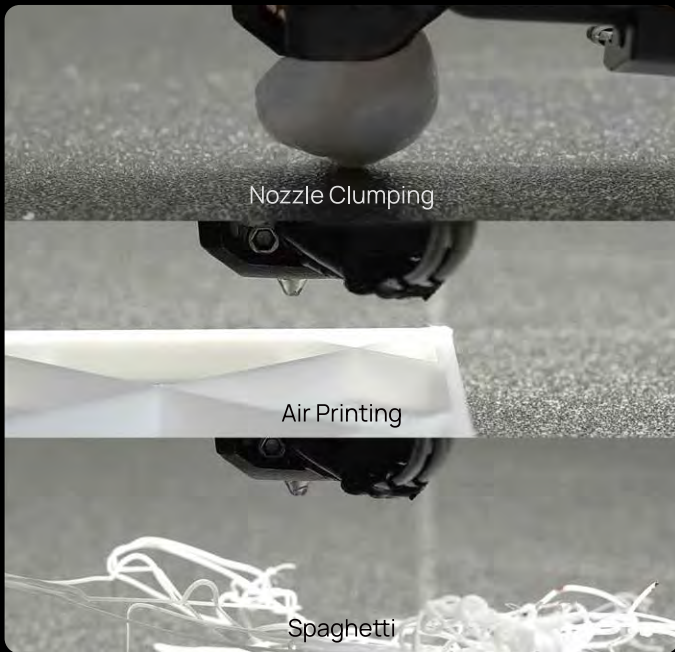
Fast and efficient multi-color printing.



H2D: 17h16min
X1C: 26h29min

Nozzle Camera

AI-backed nozzle camera with macro lens immediately detecting filament clumping, air printing, and spaghetti.



King-Size Print Volume

With a print volume of up to 350mm×320mm×325mm, , creating large-scale projects has never been easier!



350°C Nozzle & Active Chamber Heating

65°C active chamber heating and a high-temperature hotend reaching up to 350°C with precise closed-loop temperature control effectively eliminates warping and deformation in high-performance materials printing, ensuring superior layer bonding and maximizing their full potential.

SOTA Filament Monitoring

Throughout the AMS-to-nozzle path, 15 strategic sensors form an intelligent network, continuously tracking five key parameters: feeding velocity, tension, filament tip location, extruder thermal environment, and dynamic extrusion pressure.



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.



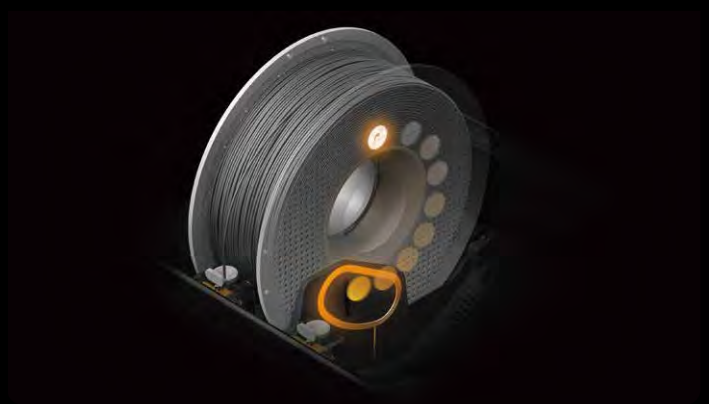
Auto-Rotate Drying

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.



H2D Spec Sheet

Item		Specification
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 & Shell	Aluminum, Steel, Plastic and Glass
	Laser Safety Windows	Equipped on Laser Edition, normal H2D can upgrade through Laser Upgrade Kit
	Air Assist Pump	Equipped on Laser Edition, normal H2D can upgrade through Laser Upgrade Kit
Physical Dimensions	Physical Dimensions	492*514*626 mm ³
	Net Weight	31 kg
Toolhead	Hotend	All Metal
	Extruder Gear	Hardened Steel
	Nozzle	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 Diameter	1.75 mm
	Extruder Motor	Bambu Lab High-precision Permanent Magnet Synchronous Motor
Heatbed	Supported Build Plate Type	Textured PEI Plate, Smooth PEI Plate
	Max Heatbed Temperature	120 °C
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 °C printing temperature)
	Max Flow for Hotend (Optional High Flow Hotend)	65 mm ³ /s (Test parameters: 250 mm round model with a single outer wall; Bambu Lab ABS; 280 °C printing temperature)
Chamber Temperature Control	Active Chamber Heating	Supported
	Max Temperature	65 °C
Air Purification	Pre-filter Grade	G3
	HEPA Filter Grade	H12
	Activated Carbon Filter Type	Granulated Coconut Shell
Cooling	Part Cooling Fan	Closed Loop Control
	Auxiliary Part Cooling Fan	Closed Loop Control
	Chamber Heat Circulation Fan	Closed Loop Control
	Cooling Fan for Hotend	Closed Loop Control
	Main Control Board Fan	Closed Loop Control
	Chamber Exhaust Fan	Closed Loop Control
Supported Filament Type	PLA, PETG, TPU, PVA, BVOH, ABS, ASA, PC, PA, PET, Carbon/Glass Fiber Reinforced PLA, PETG, PA, PET, PC, ABS, ASA, PPA-CF/GF, PPS, PPS-CF/GF	Supported

Item		Specification
Sensor	Live View Camera	Built-in; 1920*1080
	Nozzle Camera	Built-in; 1920*1080
	BirdsEye Camera	Built-in; 3264*2448 (Equipped with Laser Edition)
	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*	2200 W@220 V / 1320 W@110 V
	Average Power	1050 W@220 V / 1050 W@110 V
Electronics	Touchscreen	5-inch 720*1280 Touchscreen
	Storage	Built-in 8 GB EMMC and USB Port
	Control Interface	Touchscreen, mobile App, PC App
	Neural Processing Unit	2 TOPS
Software	Slicer & Software	Bambu Studio, Bambu Suite, Bambu Handy 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
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
10W & 40W Laser Module	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; 40 W ± 2 W
	Laser Spot Dimension	10W: 0.03 mm * 0.14 mm; 40W: 0.14 mm * 0.2 mm
	Working Temperature	0 °C–35 °C
	Max Engraving Speed	10W: 400 mm/s; 40W: 1000 mm/s
	Max Cutting Thickness	10W: 5 mm; 40W: 15mm (Basswood Plywood)
	Laser Safety Class for Laser Module	Class 4
	Overall Laser Safety Class*	Class 1
	Engraving Area	10W: 310 mm * 270 mm; 40W: 310 mm * 250 mm
	XY Positioning Accuracy	< 0.3 mm
	Z Height Measuring Method	Micro Lidar

	Item	Specification
10W & 40W Laser Module	Z Height Measuring Accuracy	± 0.1 mm
	Flame Detection	Supported
	Temperature Detection	Supported
	Door Sensor	Supported
	Laser Module Installation Detection	Supported
	Safety Key	Included
	Ventilation Pipe Adapter Outer Diameter	100 mm
	Supported Material Type	Wood, rubber, metal sheet, leather, dark acrylic, stone, and more
Cutting Module	Cutting Area	300*285 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, vinyl, leather, and more



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X (Twitter)



H2D Official Website

For any questions or cooperation, please contact:
sales.na@bambulab.com