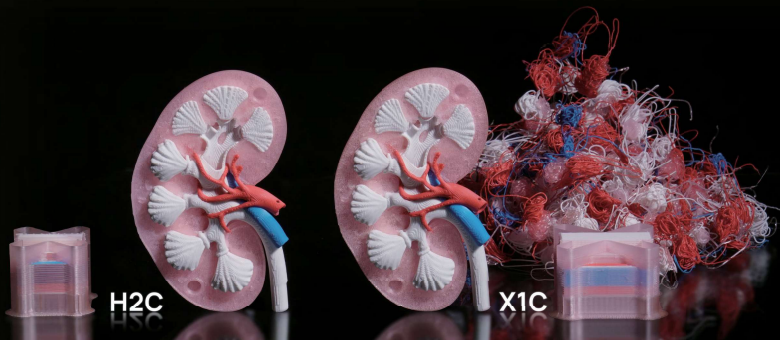


# Bambu Lab H2C

Uncompromising Multi-Material.



# Vortek Hotend Change System

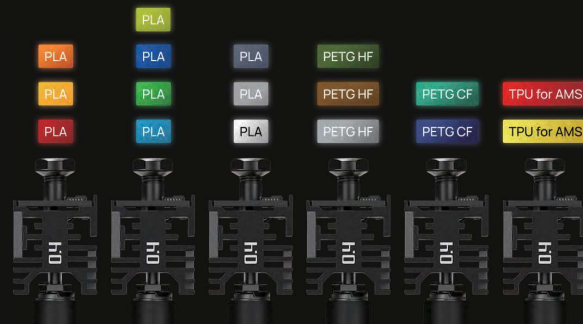


## Multi-Material Printing with Minimal Purge Waste

Traditional single-nozzle printers purge between filament changes. Vortek swaps the entire hotend instead—faster, cleaner, and with minimal waste.

## Smart Multi-Filament Mapping

The Vortek system stores filament data in each hotend, ensuring correct pairing and optimizing combinations to minimize purge waste.



## Fast Induction Heating

Our industry-leading induction heating technology heats the nozzle to temperature in just 8 seconds—dramatically reducing preheating time for each material swap compared to traditional methods.

## Reliable Contactless Connection

To ensure reliability, we replaced oxidation-prone metal pins with a contactless high-frequency connection for precise temperature control and hotend synchronization.



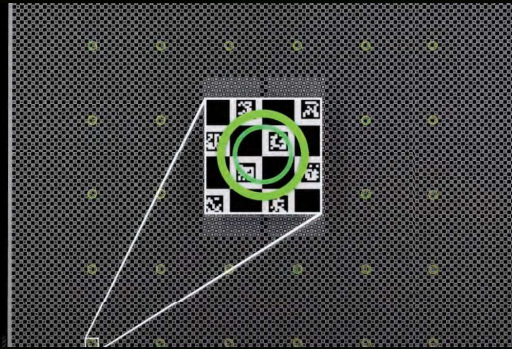
Allocation Algorithm



## More Colors to Play With

Unlike traditional toolchangers limited by toolhead count, the H2C supports up to 24 materials via parallel AMS units, using intelligent allocation to cut purge waste and deliver superior multi-material prints.

# Uncompromising Performance

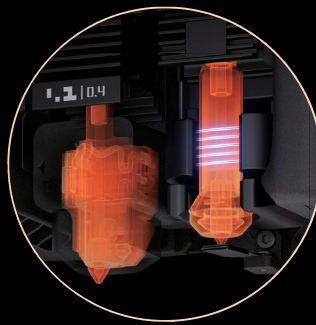
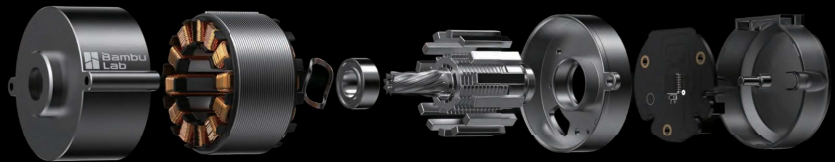


## 50µm Motion Accuracy

An 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.

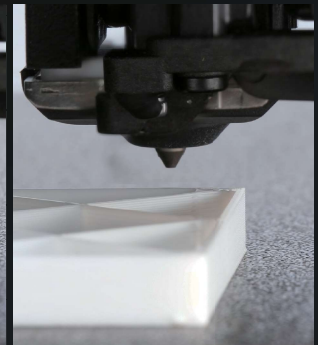


## 350°C Nozzle & Active Chamber Heating

Active chamber heating up to 65°C and a 350°C closed-loop-controlled hotend minimize warping and ensure strong layer bonding for high-performance materials.

## Nozzle Camera

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



## Best-In-Class Air Filtration

The H2C's three-stage system—G3 pre-filter, H12 HEPA, and activated carbon—effectively reduces odors and harmful particles from engineering filaments.

Item		Specification
Nozzle Quantity		Up to 7
Body	Build Volume (W*D*H)	Single Nozzle Printing: 325*320*325 mm <sup>3</sup> (Left) Single Nozzle Printing: 305*320*325 mm <sup>3</sup> (Right) Dual Nozzle Printing: 300*320*325 mm <sup>3</sup> Total Volume for Two Nozzles: 330*320*325 mm <sup>3</sup>
Physical Dimensions	Physical Dimensions	492*514*626 mm <sup>3</sup>
	Net Weight	32.5 kg
Toolhead	Extruder Gear	Hardened Steel
	Nozzle	Hardened Steel
	Max Nozzle Temperature	350 °C
	Supported Nozzle Diameter	0.2 mm, 0.4 mm, 0.6 mm, 0.8 mm
	Extruder Motor	Bambu Lab High-precision Permanent Magnet Synchronous Motor
Heatbed	Supported Build Plate Type	Textured PEI plate, Engineering Plate
	Max Heatbed Temperature	120 °C
Speed	Max Speed of Toolhead	1000 mm/s
	Max Acceleration of Toolhead	20,000 mm/s <sup>2</sup>
	Max Flow for Hotend	40 mm <sup>3</sup> /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
	VOC Filtration	Superior
	Particulate Matter Filtration	Supported
Supported Filament Type	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
	Nozzle Camera	Built-in; 1920*1080
	BirdsEye Camera	Built-in; 3264*2448 (Equipped with Laser Edition)
	Toolhead Camera	Built-in; 1600*1200
	Door Sensor	Supported
	Filament Run Out Sensor	Supported
	Filament Tangle Sensor	Supported
Electrical Requirements	Voltage	100-120 VAC / 200-240 VAC, 50/60 Hz
	Max Power*	1800 W@220 V/1250 W@110 V
	Typical Power	200 W@220 V/200 W@110 V (Single Nozzle Printing PLA)
Working Temperature	10 °C-30 °C	
Electronics	Touchscreen	5-inch 720*1280 Touchscreen
	Storage	Built-in 8 GB EMMC and USB Port
	Motion Controller	Dual-core Cortex-M4 and Single-core Cortex-M7
	Motion Controller	Quad-core ARM with NPU
Network Control	Ethernet	Not Available
	Wireless Network	Wi-Fi

\* To ensure the heatbed quickly reaches the needed temperature (35-110°C), the printer will maintain maximum power for about 3-5 minutes.