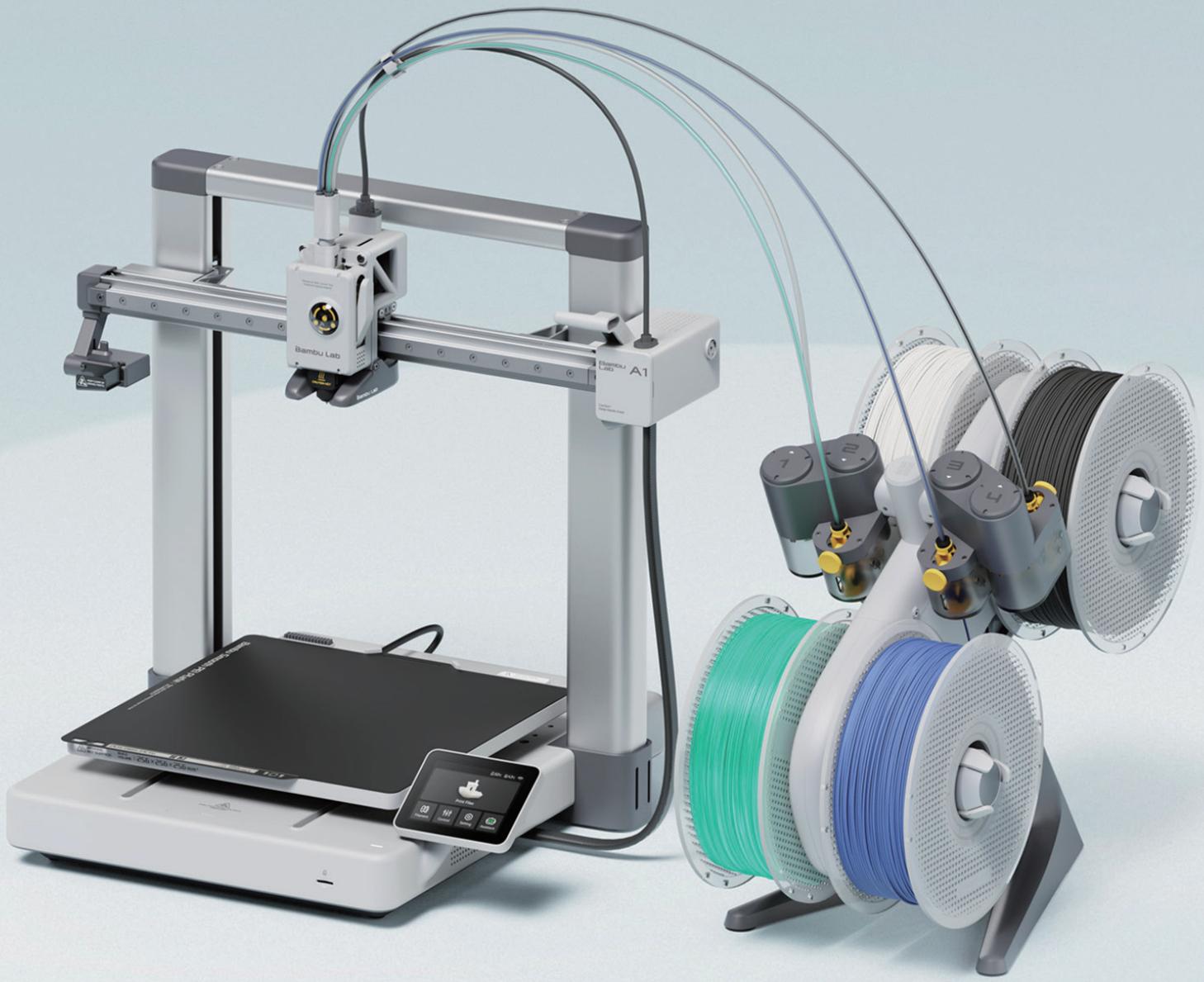




# Bambu Lab A1

A Colorful Gateway to 3D Printing



# The Innovations



## Full Auto Flow Calibration & Active Flow Rate Compensation

The eddy current sensor in the toolhead monitors nozzle pressure to automatically calculate the flow calibration parameter. The Active Flow Rate Compensation algorithm can then utilize this updated parameter to accurately compensate the flow, ensuring smooth extrusion at every corner.

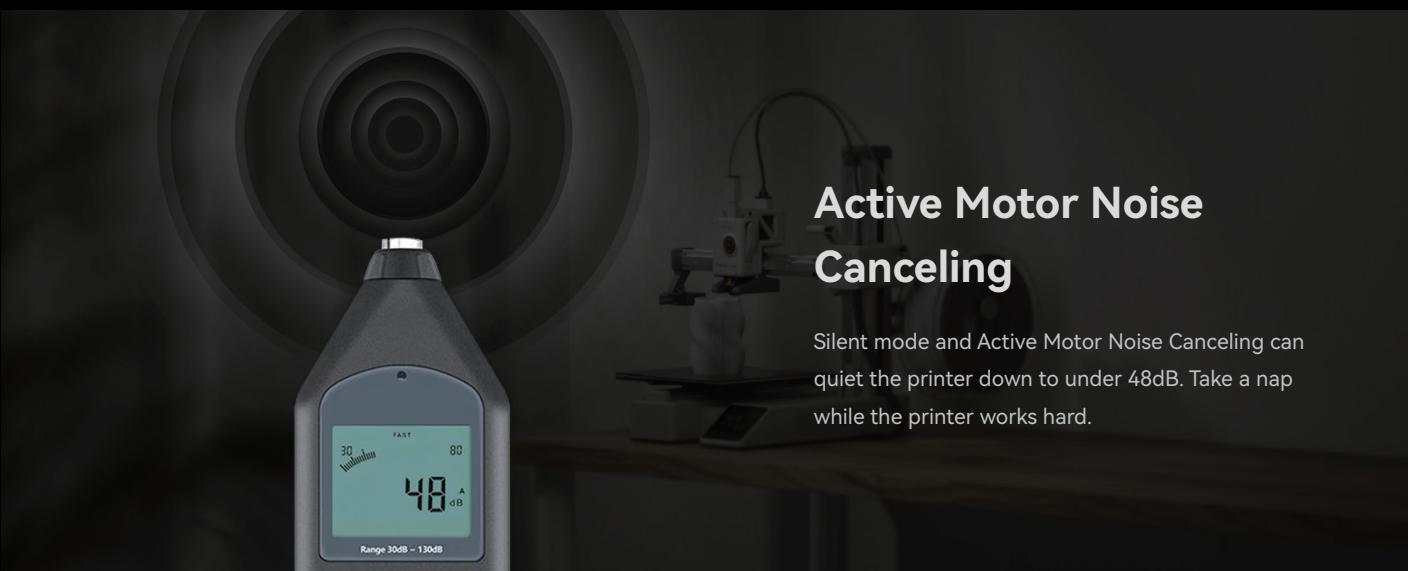


## Comprehensive Filament Monitoring

Fully loaded with filament tangle and runout sensors, a nozzle pressure sensor, and two filament odometers, A1 can combine the information from all these sensors to monitor filament tangle, filament runout, and air printing problems.

## Active Motor Noise Canceling

Silent mode and Active Motor Noise Canceling can quiet the printer down to under 48dB. Take a nap while the printer works hard.



# Plug-N-Play

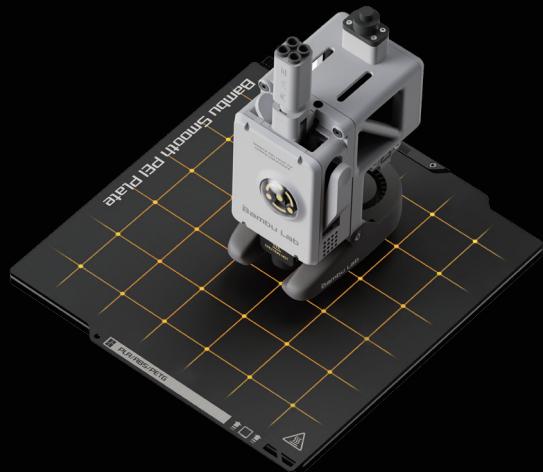
## Easy to Use Multi-color Printing

The all-new AMS lite is simple and reliable, offering the most intuitive multi-color printing experience to users of all kinds.



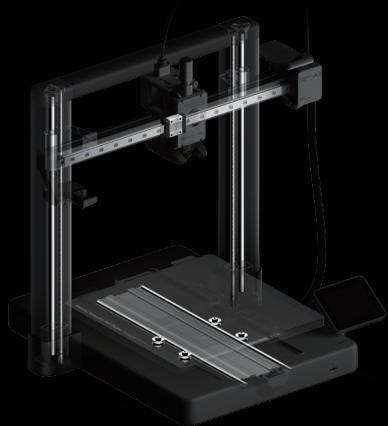
## Full-auto Calibration

A1 handles various calibrations all by itself. It meticulously calibrates the Z-offset, bed-level, vibration resonance and nozzle pressure for EVERY print job, automatically.



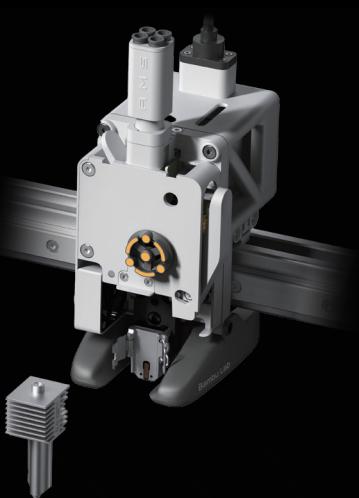
## High-speed Precision

Full-metal Rails, Rigid frame, nozzle pressure sensor, accelerometers, powerful MCU, and above all, an advanced motion control system that utilizes these features to bring you ultra-fine print quality under high print speed.



## Quick Swap Nozzle

All-new quick swap hotend design, the hotend pops in and out with just 1 clip. No tool needed.





## Body

Build Volume: 256 x 256 x 256 mm<sup>3</sup>

Chassis: Steel + Extruded Aluminum

## Speed

Max Speed of Toolhead: 500 mm/s

Max Acceleration of Toolhead: 10000 mm/s<sup>2</sup>

Max Hot End Flow: 28 mm<sup>3</sup>/s @ABS (Model: 150\*150 mm single wall;  
Material: Bambu ABS; Temperature: 280 °C)

## Physical Dimensions

Dimensions: 385 x 410 x 430 mm<sup>3</sup>

Net Weight: 8.3 kg

## Heatbed

Compatible Build Plate: Bambu Textured PEI Plate  
Bambu Smooth PEI Plate  
Bambu Cool Plate

Max Build Plate Temperature: 100°C

## Cooling

Part Cooling Fan: Closed Loop Control

Hot End Fan: Closed Loop Control

## ToolHead

Hot End: All-Metal

Extruder Gears: Hardened Steel

Nozzle: Stainless 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

## Electrical Requirements

Input Voltage: 100–240 VAC, 50/60 Hz

Max Power: 1300W@220V, 350W@110V

## Sensors

Monitoring Camera: Low Rate Camera (up to1080P) Timelapse Supported

Filament Run Out Sensor: Yes

Filament Odometry: Yes

Power Loss Recover: Yes

Filament Tangle Sensor:Yes

## Supported Filament

PLA, PETG, TPU, PVA: Ideal

ABS, ASA, PC, PA, PET, Carbon/Glass Fiber Reinforced Polymer:  
Not Recommended

## Electronics

Display: 3.5 inches 320\*240 IPS Touch Screen

Connectivity: Wi-Fi, Bambu-Bus

Storage: Micro SD Card

Control Interface: Touch Screen, APP, PC Application

Motion Controller: Dual-Core Cortex M4

## Software

Slicer: Bambu Studio supports third-party slicers which export standard Gcode such as SuperSlicer, PrusaSlicer and Cura, but certain advanced features may not be supported.

Slicer Supported OS: MacOS, Windows

## Wi-Fi

Frequency Range: 2412 MHz - 2472 MHz(CE)  
2412 MHz - 2462 MHz(FCC)  
2400 MHz - 2483.5 MHz(SRRC)

Transmitter Power (EIRP): ≤ 21.5 dBm(FCC)  
≤ 20 dBm(CE/SRRC)

Protocol: IEEE802.11 b/g/n