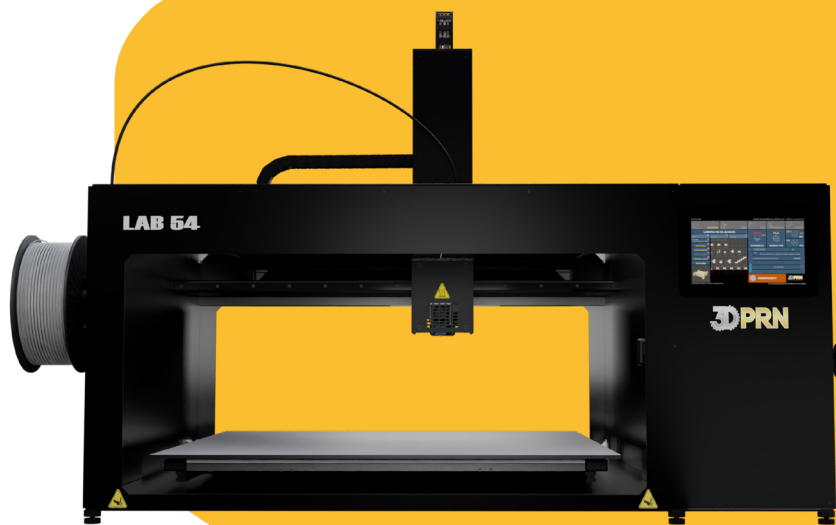


LAB O

PERFORMANCE WITHOUT COMPROMISE

Give your prints an extra gear! LAB Open combines advanced kinematics, delivering the highest printing speed in its class, with superior precision control at high speeds, preventing jams and making printing more reliable than ever. The integrated touchscreen, with its powerful print management software, blends with the dark look to give the printer an elegant, professional and modern style.



Multiple and independent axes

One machine, endless configurations. Each axis works independently and can be equipped with extruders, dispensers, a milling head or dedicated automation, adapting the LAB O to any production process.



Advanced kinematics

A latest-generation kinematic system pushes speed beyond the category standard while keeping movements smooth and precise: should the axes slip, the position is recovered instantly.



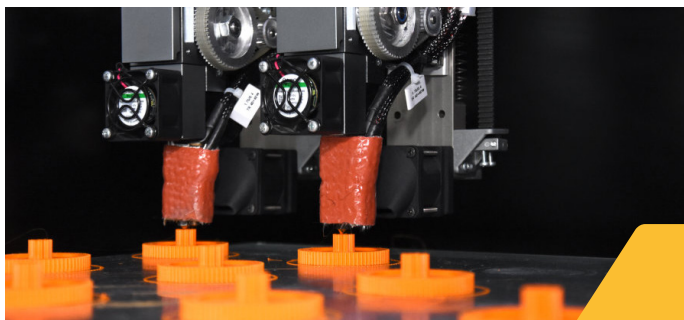
Advanced industrial technology

Advanced electronics and high-performance drives for unrivalled quality. Industrial proprietary electronics and Hybrid Step Servo drives in Closed Loop guarantee controlled movements and consistent repeatability.



Touch screen on board

Proprietary embedded control system with a touchscreen display (HMI) for advanced printer management. An intuitive interface, right on board the machine, to set and monitor every printing parameter.



Main functionalities

Multi-Axis. A modular multi-axis architecture that allows the machine to be equipped with extruders, dispensers, a milling head or bespoke automation, turning it into a high-value multifunction production platform.

Dual filament feeder. Two-stage feed system with active filament push: it ensures precise, continuous extrusion even with large-format spools, eliminating slippage and irregularities.

Heated build plate. Build plate heated up to 100°C, available in various power and surface configurations for maximum compatibility with all technical materials.

3DPRN-LOAD. Automatic bed-levelling technology that runs before every start: no manual intervention, maximum precision guaranteed print after print, with no human input.

Smart Power. Integrated UPS system with automatic print recovery: in the event of a power cut, the job resumes exactly from the last saved point, with no wasted material or lost production hours.

Single and dual-stage extruder. Extrusion system configurable in one or two stages with a dual thermal zone: it optimises material flow at higher speeds and significantly improves the mechanical properties of the printed part.

Dedicated electronics. Industrial-grade proprietary electronics to configure and adapt the machine to any production process, with no compromise on flexibility or performance.

Filament encoder. Continuous filament monitoring with real-time readings: the system constantly compares extruder output against the encoder, instantly detecting and flagging any anomaly.

Advanced kinematics. Next-generation kinematics with higher speeds than printers in the same class: smooth, highly precise movements, with instant position recovery should the axes slip.

3DPRN-WEIGHT. Integrated weight sensor for spool monitoring: it detects when material runs out and switches automatically to the second spool, pausing immediately if the filament tangles, so nothing goes to waste.

®PRINT ON AIR. Printing of inclined surfaces and undercut geometries without support structures. Immediate material savings and zero post-processing time.

Magnetic rows. Hundredth-of-a-millimetre magnetic linear encoders for active, continuous control of axis position: absolute dimensional accuracy and automatic error compensation on every print.

3DPRN-WARE. Proprietary software suite developed specifically for 3DPRN printers: advanced print parameter management, real-time monitoring and an intuitive interface for total production control.

AI integration. Integrated artificial intelligence checks print quality in real time, runs predictive analysis of printing processes and also provides a virtual assistant, always on hand for immediate technical support.

Guaranteed upgradability. 3DPRN printers are designed with an open, modular architecture: hardware and software can be updated over time to incorporate the latest technological innovations, without replacing the machine. An investment that never ages.

Main features

Frame	Aluminium, Dibond panels
Technology	FDM-FFF
Plate	Aluminium, Glass, Polycarbonate, Carbon fibre, Ultem
Drives	Hybrid Step Servo, Closed Loop
Axis	1-2 or more Extruders, Spindle
Extruder type	Steel ($\leq 300^\circ$) Aluminium ($\leq 500^\circ$)
Filament diameter	1.75mm, 3mm
Nozzle	Steel, Brass
Nozzle diameter	0.4mm, 0.6mm, 0.8mm, 1.2mm, 1.4mm
Print Area (mm)	
LAB 95	H3 900x500x300

Compatible materials

Pla, Pet, Carbon fibre Pet, Petg, Carbon fibre Petg, Pla-Flex, Tpe, Tpu (from 98 A to 60 A), Pva, Bvoh