LAYERLOOP

the power of 3D to infinity

SMART LAB
INDUSTRIE 3D

FINLOGIC
Labelling & Barcode Solutions

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DISCOVER THE LATEST EXTENSIONS OF FAMILY.

Layerloop 3D is a leading company in the 3D printing industry, recognised for its ability to tackle the most complex challenges of additive manufacturing and for its continuous search for innovative solutions. Our commitment to understanding and solving the problems associated with 3D printing has led us to develop advanced technologies that meet the needs of different industries.

Layerloop's technological innovation lies in its 30° inclined axis, a state-of-the-art solution that overcomes the limitations of traditional Cartesian coordinate printers.
This unique design, combined with our innovative roller mat, enables continuous X-axis printing, making it possible to produce objects of theoretically infinite length.

This feature sets us apart in the 3D printing landscape, offering an effective solution for both large parts and large-scale production.

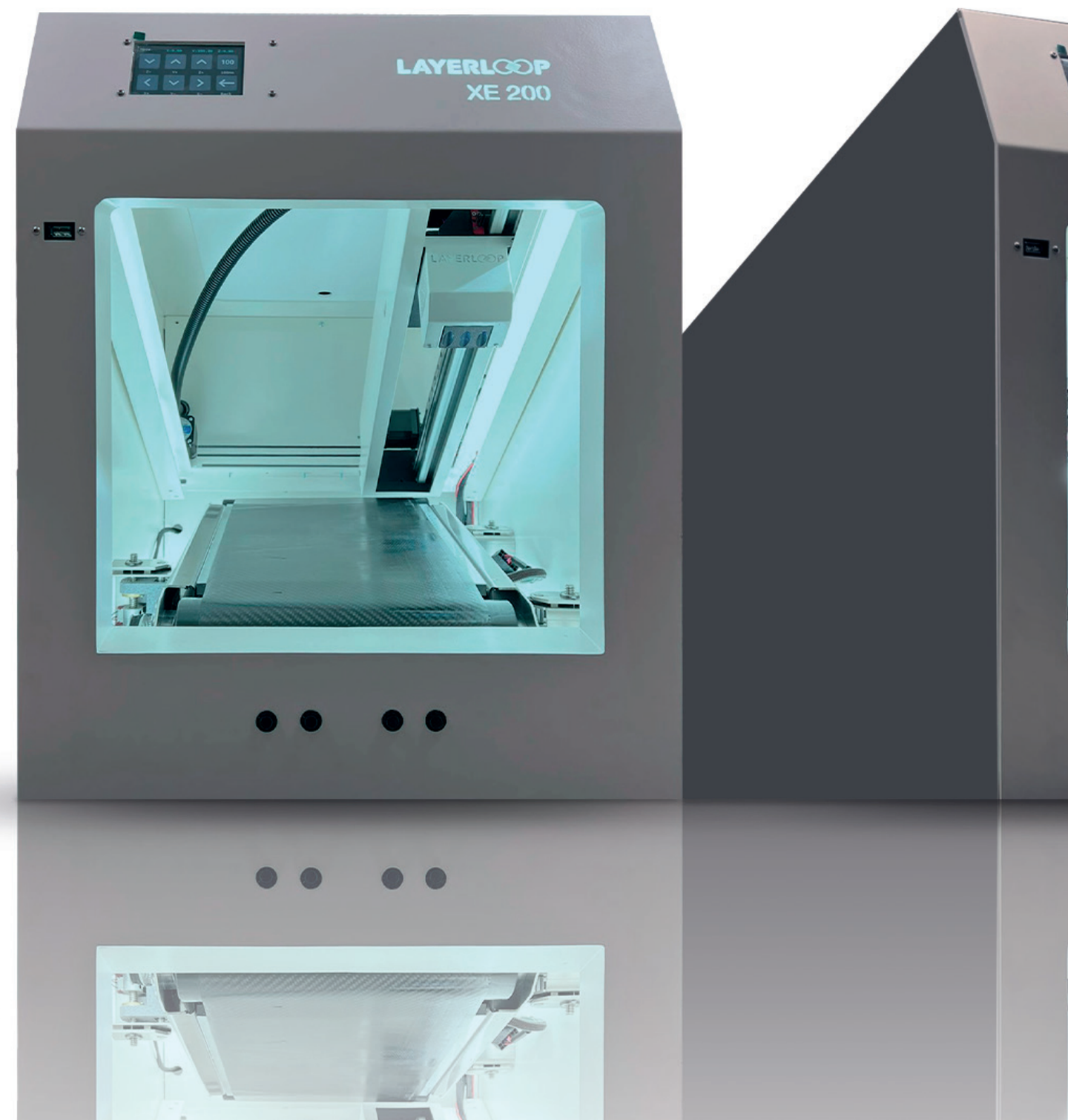
3D PRINTING WITHOUT SIZE LIMITS

Discover
the full range of 3D
printers produced
by Layerloop on
layerloop3d.com


LAYERLOOP
XE 200

WHEN PROFICIENCY MEETS DESIGN.

Layerloop XE



Particularly recommended in the medical sector and, specifically, in podiatry, the Layerloop XE stands out for working with flexible materials such as rubber.

Layerloop XE is an open chamber desktop printer with a 30° print axis, suitable for those approaching the world of 3D printing with specific requirements and looking for an entry-level device without compromising on quality and efficiency.

Compact Design

With its small size, the desktop printer fits easily into any environment.

User Friendly

Intuitive interface and simple functionality, ideal for users of all levels, from beginners to professionals.

Free your creativity

With its 30° axis and roller printing table, the Layerloop XE allows printing on an infinite axis, offering endless possibilities.

Interchangeable Nozzles

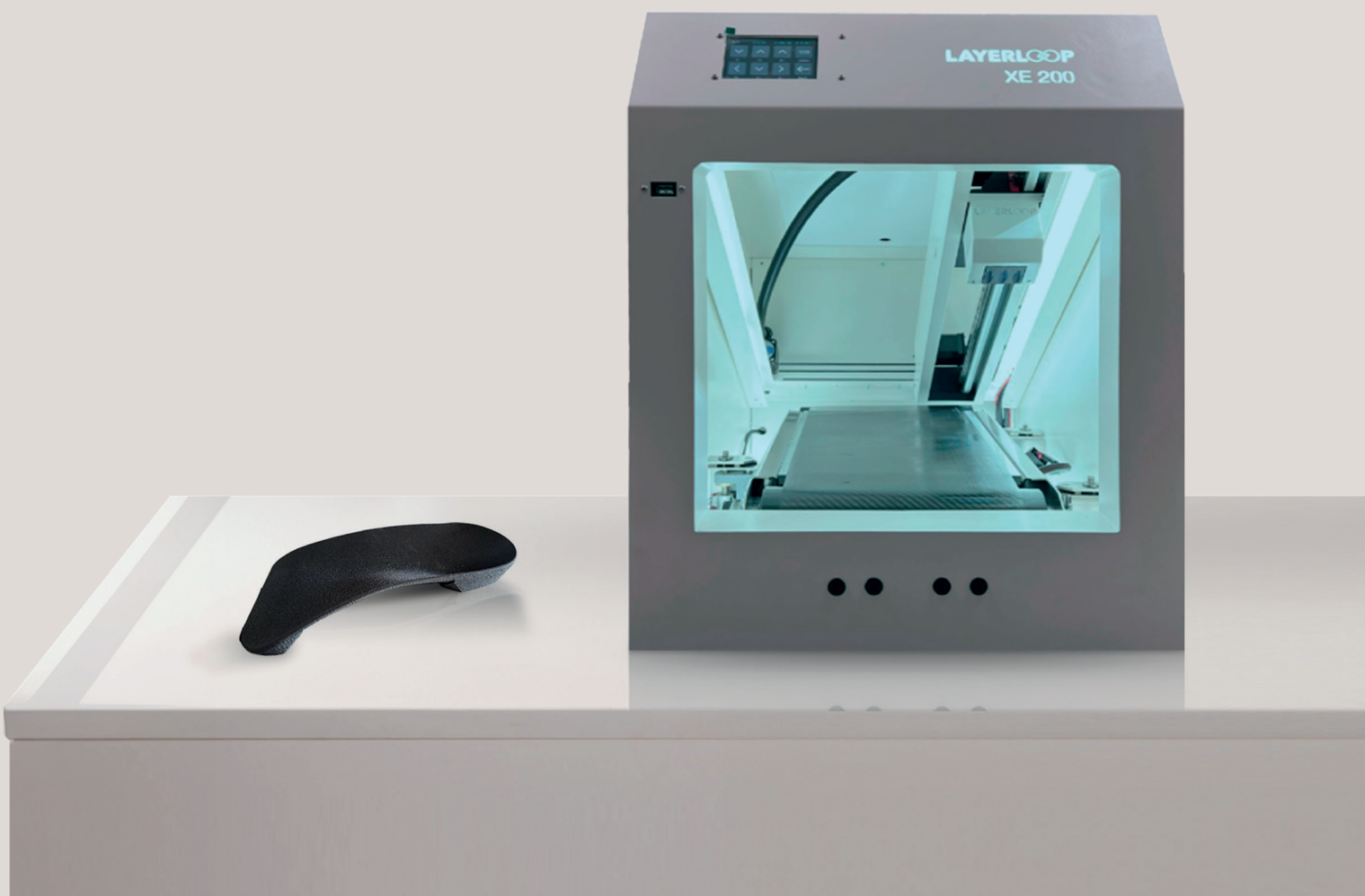
Interchangeable nozzles with diameters of 0.4, 0.6 and 0.8 mm, allowing the printing accuracy to be adapted to specific project.

Production speed

It produces prints quickly and reliably, reducing production time.

Wide Range of Materials

It can print with a wide choice of materials, including PLA, TPU, PETG, LayGREEN and more.



CARBON KIT

Optional for Layerloop XE

The Carbon Kit allows you to upgrade Layerloop XE, providing the capability to print with carbon-filled materials and TPU. This kit includes:

- 1 carbon fiber tape
- 1 Tech extruder
- 1 spool of your choice between PPCF or Laygreen Carbon

The Carbon Kit is ideal for those looking to optimize the Layerloop XE for the podiatry sector, enabling high-quality and durable prints essential for podiatric applications. With this upgrade, you can expand your printing capabilities and achieve professional results with advanced materials.

General properties

Print Technology	FFF - 30° Inclined Extruder
Build Volume	200 mm x 180mm x Infinity (7.87 × 7.09 inches)
Layer Resolution	100-800 microns Print mode tuned for 200 microns
Material Diameter	1.75 mm (0.069 inches)
Material Compatibility (Opened material System)	PLA – LAYGREEN – PETG – PETG MDT (standard) PPCF – LAYGREEN PRO CARBON – TPU (Upgradable with carbon Kit)
Extruder Compatibility	Standard Tech (Upgradable with Carbon Kit)
Nozzle Diameter	0.4 mm to 0.8 (0.015 – 0.030 inches)

Temperature

Chamber Operating Temperature	15 - 30°C passive heat (59-86°F)
Belt Temperature	20 - 70 °C (68 - 158°F)
Extruder Temperature	20 – 250°C (68 – 482°F)

Size & Weight

Product Dimensions	550 mm (H) x 450 mm (W) x 750 mm (D) / 21.65 in (H) x 17.72 in (W) x 29.53 in (D)
Shipping Box Dimensions	750 mm (H) x 1200 mm (W) x 800 mm (D) / 29.53 in (H) x 47.24 in (W) X 31.50 in (D)
Product Weight	50 Kg (110.23 lb)
Shipping weight	90 Kg (198.42 lb)

Mechanical

Belt Surface	Polyurethane Carbon Fiber (Upgradable with carbon Kit)
Build Plate Leveling	Semi- automated leveling

Software

Software	Layerloop Slicer , Layerloop I.M.
Supported File Types	STL, OBJ, X3D, 3MF
Operating Systems	Windows (7, 10), Mac OS X (10.12+)

Electrical

Power Requirements	100-240 V, 50-60 HZ, 2.7-1.3A
Connectivity	USB STAND ALONE

Safety & Compliance

Safety	Fully enclosed
Compliance	CE, FCC IEC/ EN/ UL60950-1, IEC/ EN/UL 62368-1

Optional

Carbon KIT	included: - Tech Extruder - Carbon Fiber Belt - 1 of PPCF or Laygreen Carbon spool

WHAT IF THE POWER OF 3D WAS INFINITY

Layerloop Next

The integrated printing roller allows the production of parts of infinite dimensions in different types of materials: polymers, composites, elastomers, metals, ceramics.

Layerloop Next is the open chamber printer, featuring a 30° print axis that allows it to overcome the traditional limits of 3D printing, offering new possibilities and eliminating the media needed during the printing process.

30° inclined axis for support-free printing

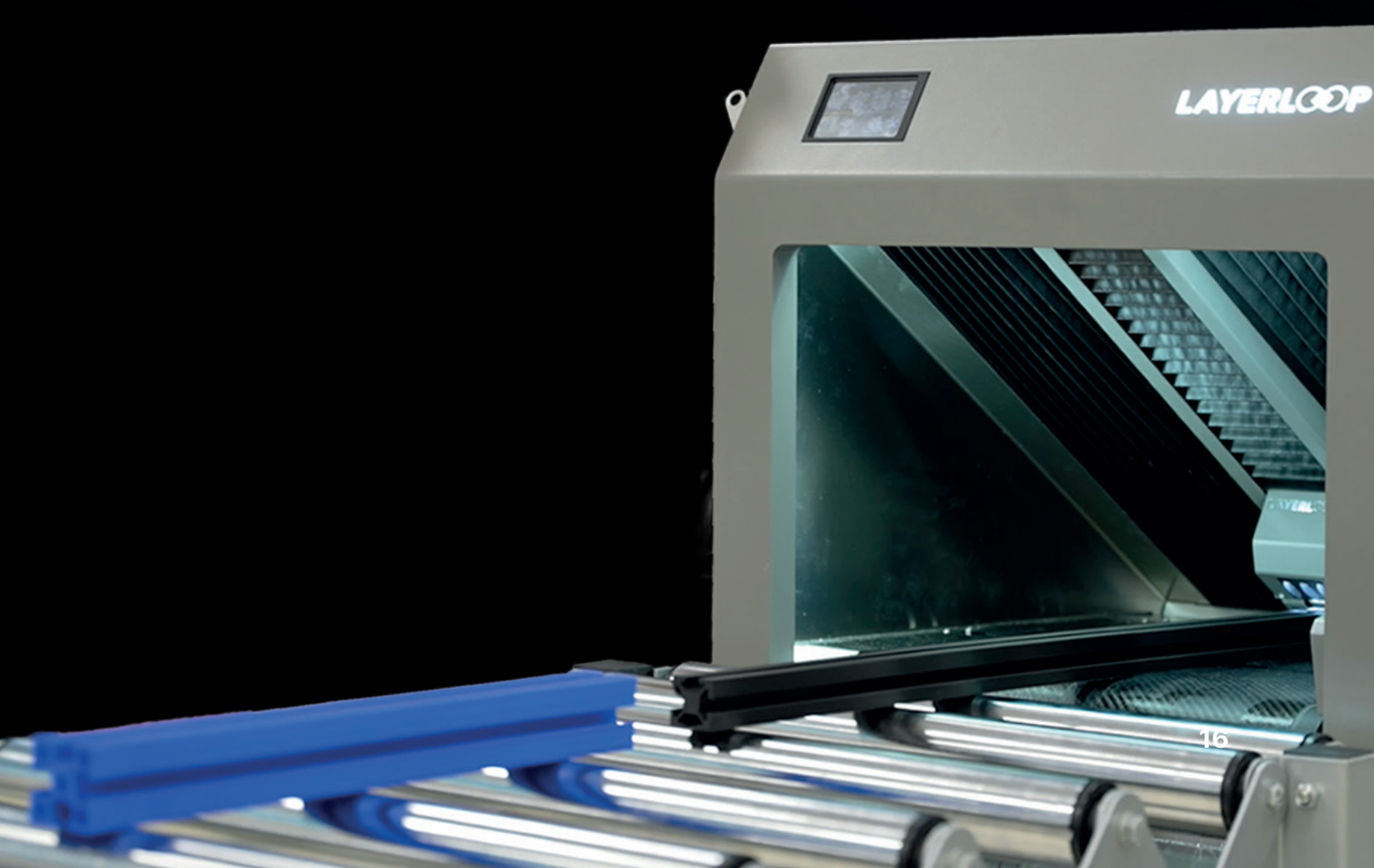
The 30° inclination of the print axis allows the production of finished parts without any print media.

Desktop dimensions for series production

Layerloop Next produces 24/7 for unmanned mass production of your parts.

Over 15 3D printing materials

From PLA to CARBON, over 15 materials are available for printing, Produce your prototypes, parts or finished products with ultra-resistant materials.



CABINET

Optional for Layerloop NEXT Series

The cabinet for the Layerloop Next series is a support structure designed to enhance the efficiency and versatility of the Layerloop Next 3D printer. This cabinet offers numerous advantages and features, making the use of the printer more convenient and professional.

1. Robust and Stable Structure: Made from high-quality materials, the cabinet provides a solid and stable base for your printer, reducing vibrations and improving print quality.

2. Integrated Storage Space: Includes compartments for storing filaments, tools, and accessories, keeping everything you need.

3. Environmental Protection: The enclosed structure of the cabinet protects the printer from dust and temperature variations, creating a more controlled printing environment and improving the quality of the final product.

4. Active Drying and Dehumidification: The cabinet features an active drying and dehumidification system with temperature and humidity control. It can reach temperatures of up to 70°C (158°F)

General properties

Print Technology	FFF - 30° Inclined Extruder
Build Volume	200 mm x 200mm x Infinity (7.87 × 7.87 inches) 300 mm x 200mm x Infinity (11.81 × 7.87 inches) 400 mm x 200mm x Infinity (15.75 × 7.87 inches)
Layer Resolution	100-800 microns Print mode tuned for 200 microns
Material Diameter	1.75 mm (0.069 inches)
Material Compatibility (Opened material System)	STANDARD MATERIAL: PLA-LAYGREENPRO–PETG–PETGMDT–PETGE-SD-TPU–PP–PCTG–ABS– ABSV0–ABSESD-ASA–PA12 FIBER FILLED MATERIAL: LAYGREEN CARBON – PPCF – PA6CF – PA12GF – PETG CARBON METAL & CERAMIC MATERIAL: 316L STEEL - ZIRCONIA
Extruder Compatibility	Standard High Speed Tech Metal
Nozzle Diameter	0.4 mm to 0.8 (0.015 – 0.030 inches)

Temperature

Chamber Operating Temperature	15 – 50 °C passive heat (59-122°F)
Belt Temperature	20 - 120 °C (68 - 248°F)
Extruder Temperature	20 – 300 °C (68 – 572 °F)

Size & Weight

Product Dimensions	550 mm (H) x 450 mm (W) x 750 mm (D) / 21.65 in (H) x 17.72 in (W) x 29.53 in (D) 550 mm (H) x 550 mm (W) x 750 mm (D) / 21.65 in (H) x 21.65 in (W) x 29.53 in (D) 550 mm (H) x 650 mm (W) x 750 mm (D) / 21.65 in (H) x 25.59 in (W) x 29.53 in (D)
Shipping Box Dimensions	750 mm (H) x 1200 mm (W) x 800 mm (D) / 29.53 in (H) x 47.24 in (W) X 31.50 in (D)
Product Weight	60 Kg (132.27 lb) 70 Kg (198.42 lb) 70 Kg (198.42 lb)
Shipping weight	90 Kg (198.42 lb) 100 Kg (220.46 lb) 100 Kg (220.46 lb)

Mechanical

Belt Surface	Carbon Fiber
Build Plate Leveling	Semi- automated leveling

Software

Software	Layerloop Slicer , Layerloop I.M.
Supported File Types	STL, OBJ, X3D, 3MF
Operating Systems	Windows (7, 10), Mac OS X (10.12+)

Electrical

Power Requirements	100-240 V, 50-60 HZ, 2.7-1.3A
Connectivity	USB, Ethernet, Wifi

Safety & Compliance

Safety	Fully enclosed
Compliance	CE, FCC IEC/ EN/ UL60950-1, IEC/ EN/UL 62368-1

Optional

Layerloop Cabinet	Not Included

FEEL THE WARM SIDE OF 3D PRINTING.

Layerloop Extend

The add-on modules allow its capacity to be increased and extended indefinitely.

Layerloop Extend is an industrial printer with a closed chamber design, providing optimal thermal management and a controlled printing environment for high precision and quality results. The 30° inclined print axis overcomes the traditional limits of 3D printing, offering new possibilities for complex geometries and eliminating the need for media during the printing process.

Plug-in modules

Thanks to its plug-in modules, you have the possibility to expand the capabilities of the printer to suit your specific needs. Printing with hot chamber precision has never been so flexible: now you can realise projects of infinite size, without limitations.

High precision

With the Layerloop Extend, you enter the world of ultra-high precision 3D printing, thanks to its hot chamber that ensures a constant and uniform temperature throughout the printing process.

Material range

Layerloop Extend's hot chamber opens the door to a wide range of printable materials: from ABS to nylon, from flexible materials to advanced composites, Layerloop Extend can handle a wide range of materials with precision and reliability.

EXENDABLE MODULE

For Layerloop EXTEND

The Layerloop Extend expandable modules are components designed to enhance and extend the capabilities of your Layerloop Extend 3D printer. These modules offer a range of advanced features, providing greater flexibility and versatility in your 3D printing operations.

Each module includes a controlled heating system that can reach high temperatures, ideal for working with industrial materials. This allows for better layer adhesion and prevents the “warping” effect in large-format prints. Additionally, each module allows you to extend the print length by 500 mm (approximately 19.69 inches), offering the possibility of creating larger objects without compromising the heated chamber.

General properties

Print Technology	FFF - 30° Inclined Extruder
Build Volume	500 mm x 300mm x Infinity (19.68 × 11.81 inches)
Layer Resolution	100-800 microns Print mode tuned for 200 microns
Material Diameter	1.75 mm (0.069 inches)
Material Compatibility (Opened material System)	**STANDARD MATERIAL:** LAYGREENPRO–PETG–PETGMDT–PETGESD-TPU–PP–PCTG–ABS–ABSV0– ABSESD-ASA–PA12 **FIBER FILLED MATERIAL:** LAYGREEN CARBON – PPCF – PA6CF – PA12GF – PETG CARBON **INDUSTRIAL MATERIAL:** PAEK AM200 VICTREX – PPS CF – PPSU – PCABS **METAL & CERAMIC MATERIAL:** 316L STEEL - ZIRCONIA
Extruder Compatibility	Industrial High Speed Tech
Nozzle Diameter	0.4 mm to 0.8 (0.015 – 0.030 inches)

Temperature

Chamber Operating Temperature	15 – 90 °C active heat (59 -194°F)
Belt Temperature	20 - 150 °C (68 - 302°F)
Extruder Temperature	20 – 450 °C (68 – 842 °F)

Size & Weight

Product Dimensions	1900 mm (H) x 1000 mm (W) x 1200 mm (D) / 74.80 in (H) x 39.37 in (W) x 47.24 in (D)
Shipping Box Dimensions	2100 mm (H) x 1200 mm (W) x 1500 mm (D) / 82.67 in (H) x 47.24 in (W) X 59.05 in (D)
Product Weight	160 Kg (352.74 lb)
Shipping weight	220 Kg (485.01 lb)

Mechanical

Belt Surface	Carbon Fiber
Build Plate Leveling	Semi- automated leveling

Software

Software	Layerloop Slicer , Layerloop I.M.
Supported File Types	STL, OBJ, X3D, 3MF
Operating Systems	Windows (7, 10), Mac OS X (10.12+)

Electrical

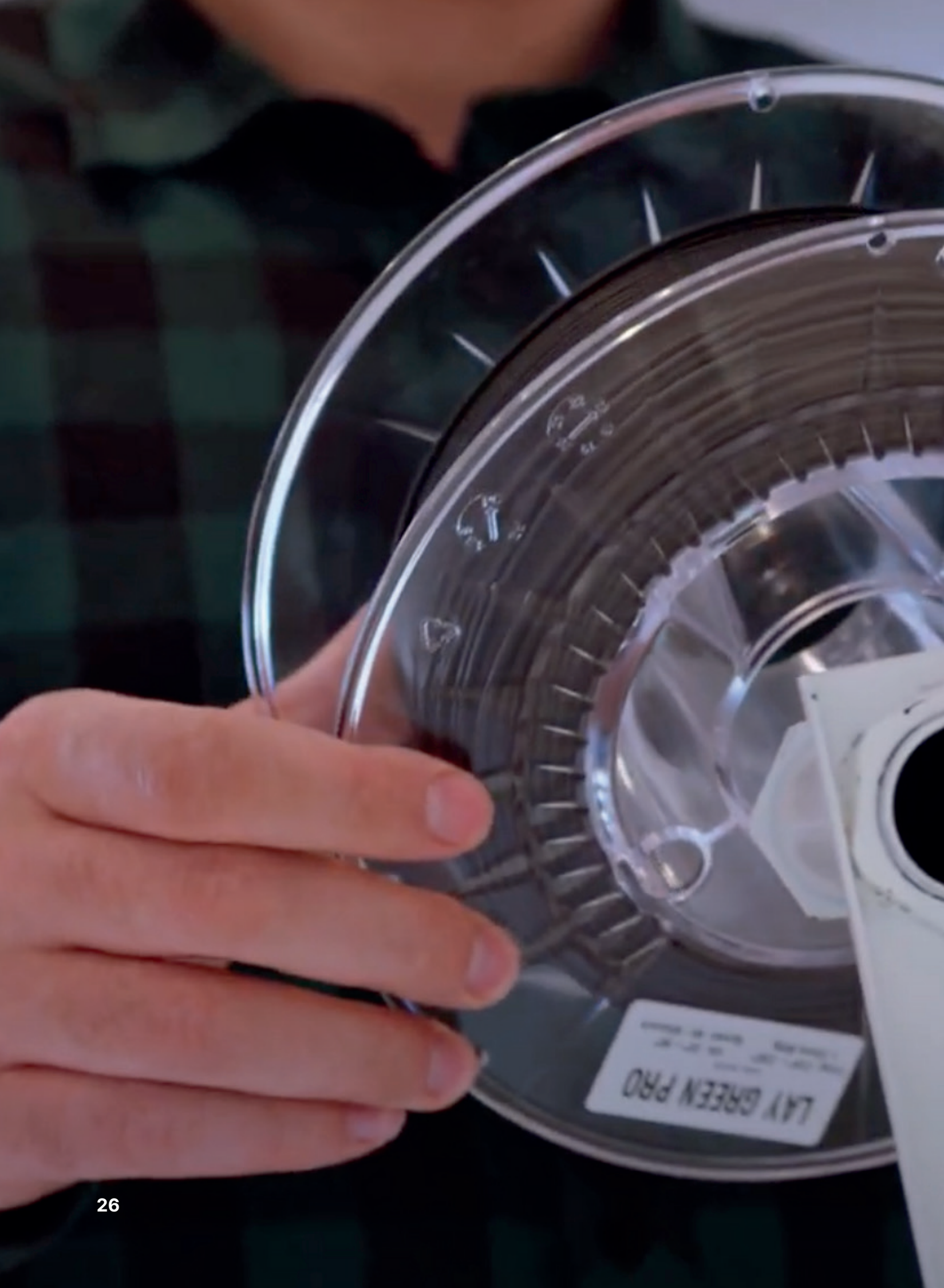
Power Requirements	100-240 V, 50-60 HZ, 2.7-1.3A
Connectivity	USB, Ethernet, Wifi

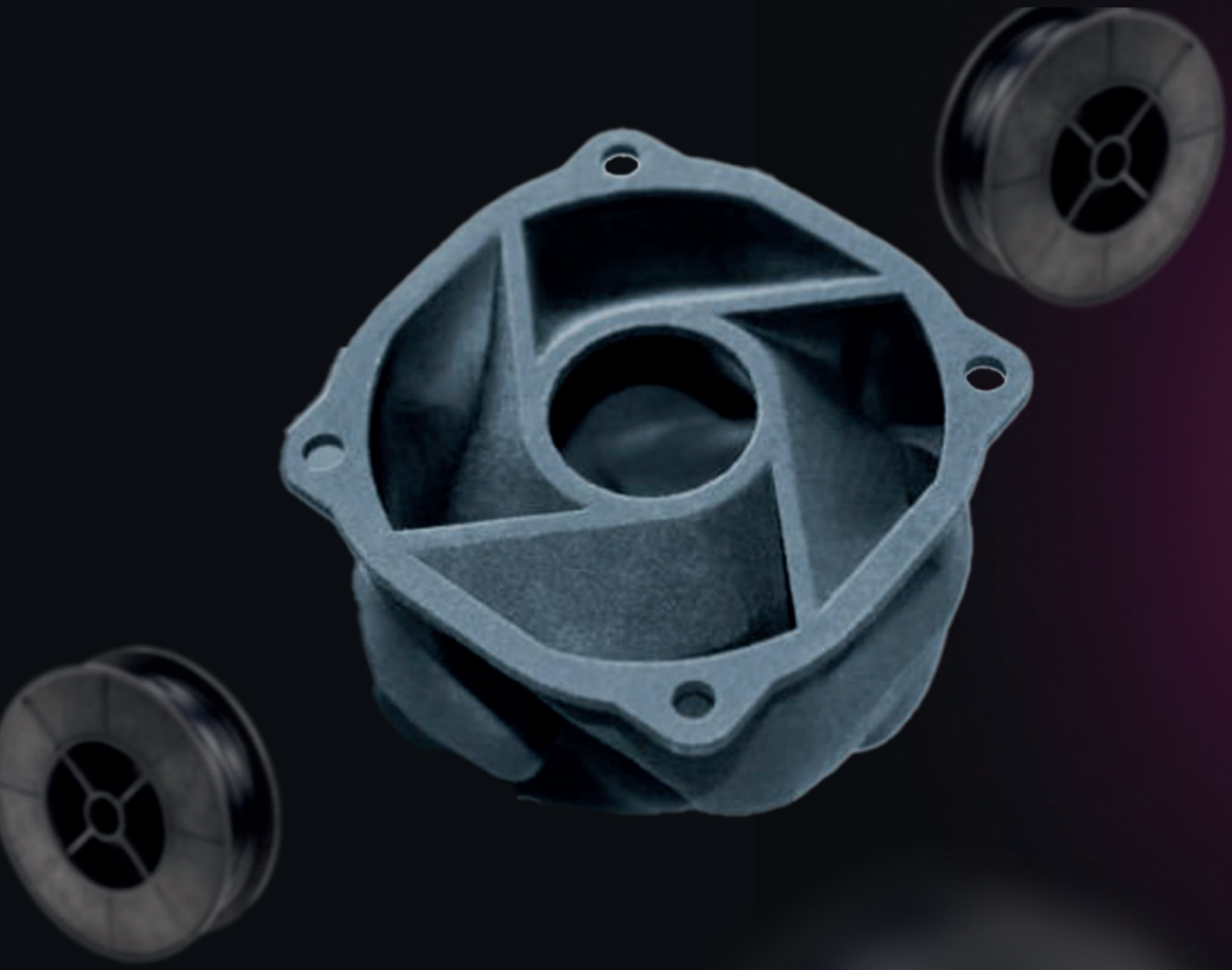
Safety & Compliance

Safety	Fully enclosed
Compliance	CE, FCC IEC/ EN/ UL60950-1, IEC/ EN/UL 62368-1

Optional

Carbon KIT	Not Included


LAY GREEN PRO



CHOOSE MATERIAL AND START THE PRODUCTION

Layerloop Range

LAYPLA

One of the most popular 3D printing materials, characterised by its resistance to deformation and ease of printing. PLA is a completely environmentally friendly polylactic acid material of vegetable origin. PLA 3D printing filaments are suitable for post production, are impact resistant and, being a bioplastic, do not emit odours or vapours during printing.

LAYPLA HIGH IMPACT

Laypla High Impact boasts essential technical capabilities of impact resistance, wear resistance and flexibility. It has the ability to flex without compromising the structure and is widely used in the industrial and automotive sectors.

LAYPETG

PETG is a modified version of PET; the 'G' stands for modified glycol. This material is more flexible and resistant than PLA, but easier to print with than ABS filament. This type of printing filament also allows open chamber printing, as it does not emit toxic vapours.

LAYLON

Nylon materials are characterised by their strength and flexibility, but compared to other filaments, it requires more complex processing.
Nylon is suitable for 3D printing of objects that are resistant to compression or twisting.

LAYASA

ASA (acrylonitrile styrene acrylate) filament is a multi-purpose thermoplastic that is perfect for 3D printing and UV-resistant.Similar to ABS plastic but with some improvements: optimised mechanical properties and superior aesthetics. Over 10 colour variant possibilities.

LAYFLEX

TPU, in its Layerloop-produced variant 'Layflex', is a rubber-like material available in 3 different shore hardnesses from 80A to 60D

LAYGREEN PRO

Laygreen Pro is a 3D printing filament from our BIO Performance range of materials, developed for high-performance applications in terms of mechanical and thermal resistance. In fact, the material has excellent flexural strength and dimensional stability during printing, resulting in excellent aesthetics.

LAYGREEN CARBON

The choice of this new polymer arose from our customers' need to use a material that combined biodegradability with the mechanical characteristics conferred by carbon fibres, which give the basic polymer matrix light weight, greater resistance to high temperatures and a high Young's modulus (over 7Gpa).

LAYPP

Semi-crystalline polymer characterised by high tensile strength, low density and resistance to abrasion.

LAYPPS

It features an HDT heat resistance according to ISO75 of 190°c.

LAYPPSCF

It has an HDT heat resistance according to ISO75 of 220°c.

APPLICATIONS PRINTED WITH LAYERLOOP

Layerloop case study

Plumbing – LAYABS

Performance printing that fills the entire product, offering high pressure capabilities for liquid and air insertion, making it perfect for air and water joints.

Noozle: 0.8
Printing by finished product
High pressure printing

Lighting technology – LAYGREEN CARBON

Made of Laygreen Carbon, these outdoor lighting fixture covers offer UV resistance, ensuring durability and optimal protection over time.

Noozle: 0.6
Layer height: 0.1
No internal support

Industrial – Nybron

The material used, selected for its mechanical properties and its ability to absorb high stresses, offers excellent performance even under extreme stress conditions.

Noozle: 0.8
Printing for industrial applicartion
High pressure printing

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