

filabot

EX3

Filament Extruder



Advanced Filament Extrusion made accessible for
Education, Research, Recycling, and 3D printing Innovation.

Distributed by



Learning Labs, Inc.

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filabot EX3

More Freedom. Better Process Control.

As a leader in filament extrusion, Filabot is dedicated to pushing the boundaries of 3D printing. With the continuous feedback from thousands of users across education, research, MakerSpaces, and recycling programs, we designed the versatile EX3 filament extruder.

The intuitive EX3 delivers high material flexibility, robust process control, and ease of operation for the most consistent filament quality and quick returns. It's complete extrusion platform empowers users to recycle, develop new formulations, teach material science, and produce perfect filament for demanding 3D printing with the trusted Filabot quality.

Designed to Innovate With You



1. High Torque for Precision Controlled Extrusion

Industry leading torque for smoother, high precision extrusion, ensuring consistent flow for repeatable high quality filament with most demanding materials.



2. Up to 425°C Processing Capability

With high thermal capabilities, the EX3 provides a processing window for advanced polymers, high-performance materials, and demanding R&D applications.



3. Versatile Screw and Nozzles

A long, interchangeable 14:1 L/D screw design improves melt consistency and controls while minimizing degradation, no matter the material or fillers.



4. Broad Material Compatibility

From standard to filled pellets or powders, additives, and recycled feedstocks. The anti-clog feeding ensures flow across a broad range of material formats.



5. A Scalable Platform You Won't Outgrow

The EX3 is built to last and a foundation of a broad, efficient filament extrusion ecosystem, allowing users to expand into recycling alternatives, custom extrusion, advanced cooling, large spooling, and adapt workflows as their needs evolve.



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Filament Extrusion Designed to Stay Ahead

Whether in the classroom, lab, workshop or facility floor, the EX3 empowers innovators to create high-quality filament on their terms.

One Platform. Endless Applications.



Education

The EX3 helps students move into extrusion, recycling, and material science through hands on learning. Its accessible operation and scalable workflow ecosystem make it ideal for additive and engineering programs.



Recycling

Built on Filabot's recycling heritage, the EX3 helps users reclaim material and support circular manufacturing through adaptable processing, broad feedstock compatibility, and scalable workflows.



Material Development

Designed for flexibility and repeatability, the EX3 helps researchers work with fillers, additives, powders, recycled feedstocks, and advanced polymers while maintaining control and material integrity.



Maker Spaces

The EX3 helps Maker Spaces expand beyond printing into innovation, recycling, and experimentation through an accessible, compact, and expandable extrusion platform.



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Filament Extruder Specifications

Power Input

Power: 110 VAC or 220 VAC, 50–60 Hz, 750W

Weight

29lbs / 13.5 kg

Dimensions: (LxHxW)

13.5" × 9.5" × 7" / 34 x 24 x 18 cm

Temperature Control

2 Heat Zones

Max Run Temperature: 425°C

Drive Motor

0-42 RPM

Torque: 33 Nm / 292 in-lb

Screw (Interchangeable)

- L/D Ratio: 14:1
- Many types available:
 - No Compression
 - Standard
 - High Compression
 - Others upon request

Nozzle

Type "X", 1.75mm & 2.85mm Included
(Others sizes available)

Extrusion Rate:

2lbs (1kg) per hour (Using PLA)

Material Input Size:

1/8in (3.18mm) pellets to powder



Intuitive Controls



Micro Speed Dial



High Heat Control



Swappable Nozzle



Quick Screw Change



Quality Analytics

Compatible Plastics

- PLA
- ABS
- HIPS
- PA (Nylon)
- PC
- PO
- Low MFI polymers
- PETG
- PEI
- PEEK
- TPE
- TPU
- Wax

Included:

- EX3 Extruder
- Removable Standard Screw
- Extruder Cleaning Kit
- 1.75mm & 2.85mm Nozzle
- User Manual