FELIX
BIOprinters

FELIX BIOprinter

Advance your medical and scientific research

at a glance

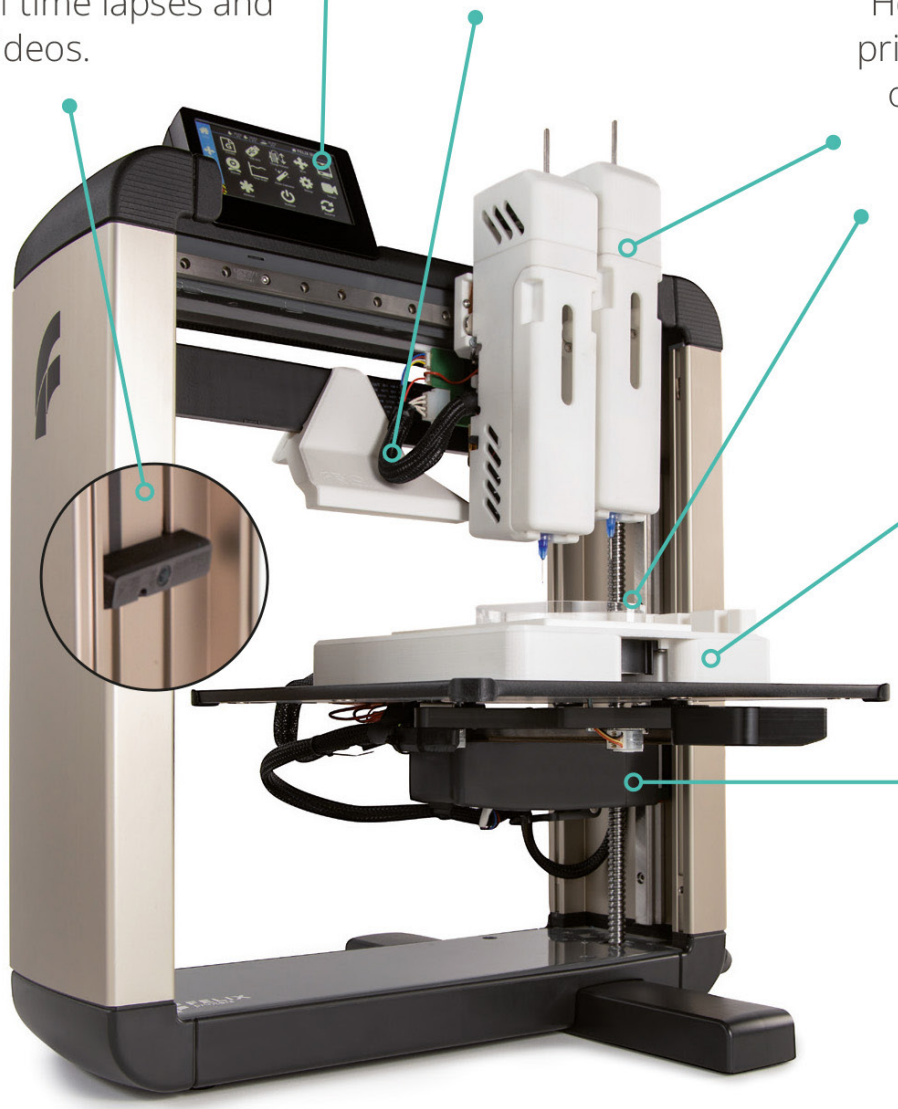
▶ FELIX BIOprinter ◀

Touchscreen
with user friendly interface and embedded print server guides users through prints. Wifi & LAN capability allows you to operate the system from a distance.

Open system
Allows user to use any standard 5 ml Luer lock syringe, standardised petri-dishes and culture plates, so there are no limitations on auxiliary parts and materials, giving you the flexibility to conduct your research.

Camera
The module enables easy progress monitoring and easy creation of time lapses and videos.

UV curing system
UV light with 365nm wavelength, 2W at high intensity.
Enables quick curing of layers.



Controlled heating and cooling
Heated and/or cooled syringes and print bed ensure cells are printed at optimal preservation temperature within 0,5°C variance.

Smart print-bed module design
Allows easy placement of a wide range of standardized containers of petri dishes and well plates.

Automatic bed leveling and calibration
Unique nozzle probing system gives a perfect first layer and saves valuable research time.

One-touch automated functions for **ease of use**

about

BIOprinting for medical, scientific and research applications

Motorized Extrusion System

Syringe extrusion capabilities
3D print materials with a viscosity range of between 50 – 1000 Pa·s with a powerful extrusion system.

Virtually no leakage due to smart retraction capabilities
The retractable printhead allows **accurate dosing** of the medium, controlled via a micro stepper motor.

Intelligent dual syringe

Prevent collision and cross-contamination
The extruder that is not in use lifts to prevent the needle from colliding against the printed object. This prevents print failure and cross-contamination.

Print in well plates or petri-dishes thanks to the syringe lifting over the edge of the container.

Quick swap system
Automatic exchange of syringes in 5 seconds for an undisturbed workflow.

Heated and Cooled Print Bed

The print bed and additional custom bed unit heats and cools.

The FELIX BIOprinter was developed by the brightest minds for the most advanced bioprinting technology.

FELIXprinters partnered with a team of Early Stage Researchers from training4crm and the Technical University of Denmark and was backed by funding from the European Union Horizon 2020 Programme.

bio-inks

A complete solution for your bioprinting applications

We offer you
a wide range of ready-to-print bio-inks, saving time and resources as an alternative to developing bio-inks in-house.

Why choose bio-inks?
- Quality and printability of the bio-inks is guaranteed.
- Developed by dedicated scientists.
- All bio-inks have been tested for optimal printability on the FELIX BIOprinter.

FELIXprinters supplies ***two leading brands*** of bio-inks.

Claro™

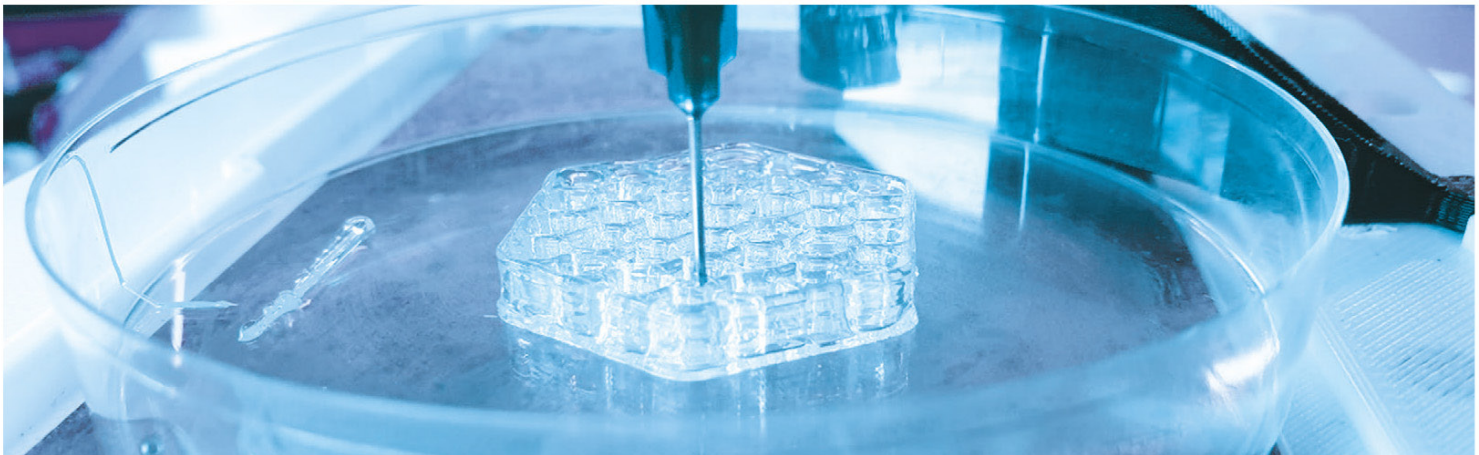
Claro™ is a leading developer of bioprintable GelMA for extrusion-based bio-printing. The Claro range offers hydrogel bio-inks in ready-to use and freeze-dried format. Claro ensures a smooth printing flow without clogging.

BIO INX®

BIO INX® offers a wide spectrum of inks for deposition-based 3D printing, ranging from synthetic to nature-derived materials, for easy printing of biocompatible platforms enabling cell seeding and/or cell encapsulation.
The Bio Inx® range includes collagen, gelatin, scaffold, biodegradable and sacrificial inks.

Find the bio-ink that perfectly matches your project.

Contact us for advice.



specifications

FELIX BIOprinters

1	Technology	• Motorized volumetric dosing • Spindle stepping motor
2	Build volume [X,Y,Z]	130 x 210 x 130 mm
3	Syringe(s) for dual printheads	• 5 cc Plastic Luer lock • Cooling/heating element has a range of 4 up to 75°C
4	Bed/ flexplate	• Automatic bed levelling calibration • Flexplate heated up to 75°C • Optional heating/cooling unit: 4 up to 60°C
5	Viscosity/max extrusion force piston	300 N
6	Recommended viscosity	50 Pa.s up to 1000 Pa.s
7	Nozzle(s) size/ output	Recommended sizes: 0.26 mm / 0.34 mm / 0.41 mm / 0.51 mm / 0.61 mm
8	XYZ resolution	X and Y direction: 1.6 micron Z direction : 0.15 micron
9	Accuracy	Typical print accuracy: +/- 0.1 mm for sizes below 20 mm
10	Build speed	1 mm/ s up to 40 mm/ s. Standard 5mm/s (depending on viscosity)
11	Layer resolution	From 50 micron up to 500 micron Typical value is 200 micron Optimal layer height depends on nozzle size
12	Power requirements	100 - 240 Volt single phase – max 3 Amps
13	Control panel/ camera	5" Touch screen interface 10 – 12.5 Gb memory (data storage) 2 MP camera (*all printers*)
14	Interfacing	USB connectivity / WIFI/ Ethernet (all printers)
15	Options	1. UV blocking Polycarbonate cover unit (*other – PET G*) 2. UV curing unit 365 nm wavelength / Output 2W 3. Glass print platform LxWxH 260 x 270 x 3 mm
16	Printer packaging dimensions [LxWxH] / weight	Packaging in carton box 780 x 530 x 250 mm,approx. 20 kg Net weight: approx. 15 kg

Optional homogenous temperature-controlled bed unit: 3 °C – 45 °C
Optional UV module and plexiglass available

about us

FELIXprinters

More **than a decade** of 3D printer manufacturing experience

- **Craftmanship**
  Printers built with industrial grade materials,
  ensuring long term reliable operation.
- **Dutch design**
  Print delicate objects with accuracy.
- **Superior technology driving real value**
  Focus less on the machine and more on your result.
- **Upgradability**
  Upgrades of key hardware parts keep you up to date on
  the latest technology in a cost-effective way.
  Customize modules according to your specifications.
- **Lifetime support**
  Targeted service to enable your success.

contact

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