

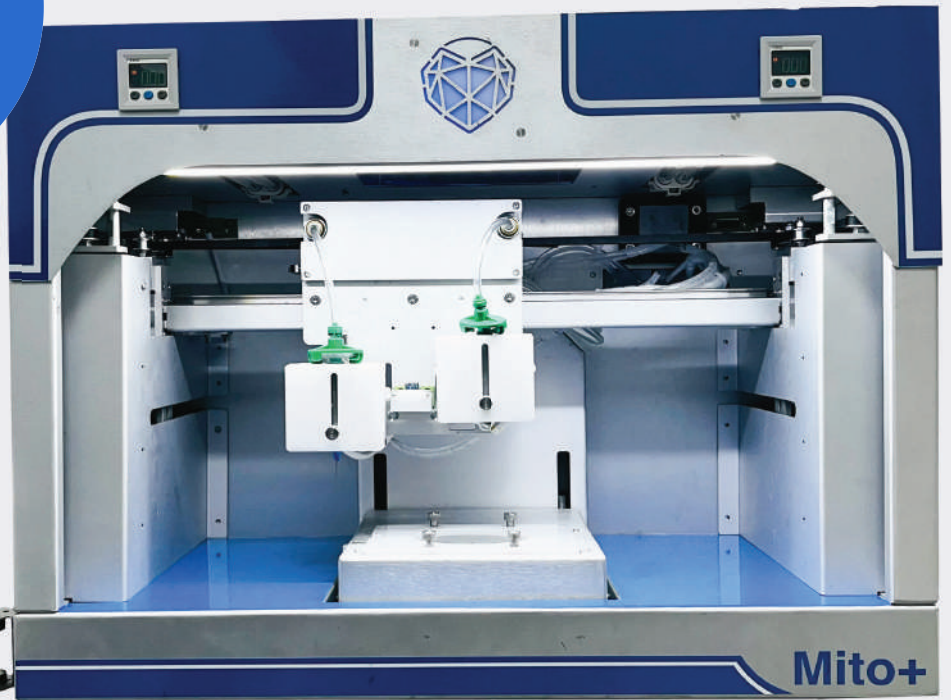


AVAY BIOSCIENCES
DEMOCRATIZING HEALTHCARE



SIMTEK
Real Time. Real Results

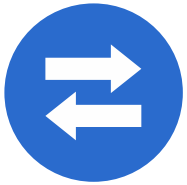
**MITO
PLUS**



Mito+

FEATURES

For Multi Material Printing



Dual Printheads

For Polymer UV Cross-Linking



High power UV LEDs for
365nm, 395 nm or 405 nm*

For more options in Scaffold Development



Customer friendly bio-fabrication
software developed by Avay

For Better Extrusion Control of Certain Materials



Temperature control print
head and print bed

Enhanced Cell Safety



Built-in UV sterilization and
HEPA filter

Coaxial Nozzle



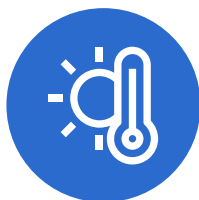
3D Coaxial Bioprinting
capable*

*Optional

CAPABILITIES



HARDWARE



Temperature control on Syringe and Bed



Dual Printheads
(can be customised for more heads)



High power UV LEDs for 365 nm or 405 nm

SOFTWARE



Layerwise feature control for extreme customizability



Review job works before printing



IoT - WiFi based print execution



Custom software contracts for special feature development

MATERIALS



In-house lab for materials research consultancy

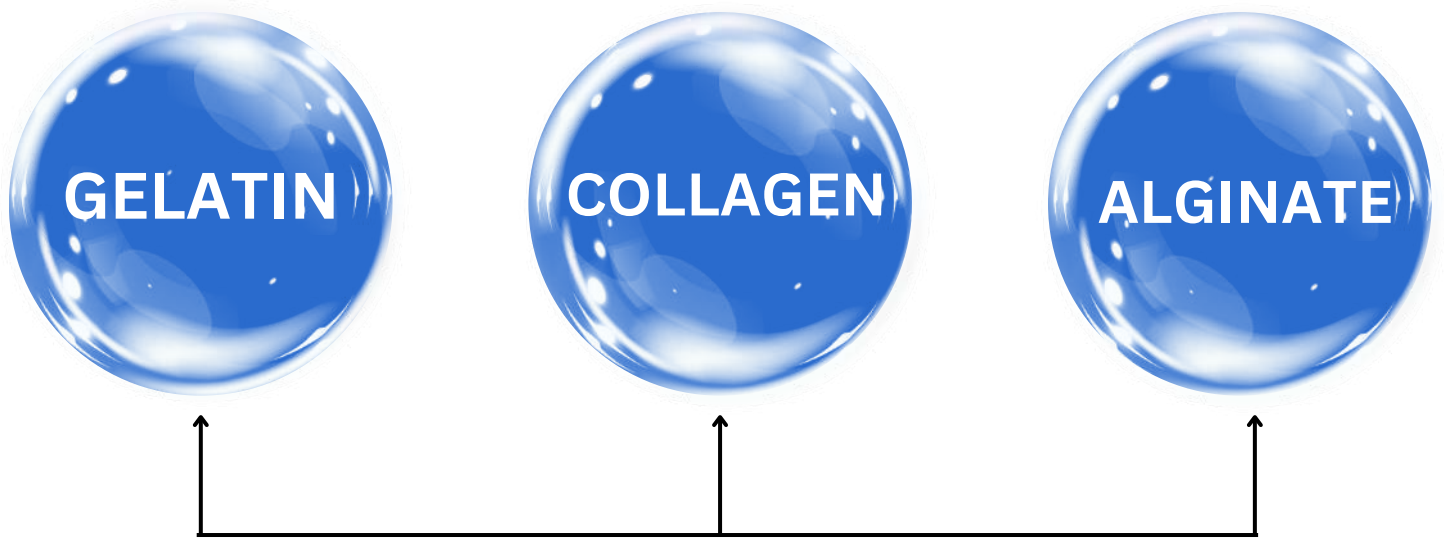


Print-on-demand facility for materials sent to us



Temperature-controlled transportation from lab

MATERIALS



Developed by AVAY
Tried and tested with "MITO"

OTHER COMPATIBLE MATERIALS:



PRODUCT SPECIFICATION

Motion Specification

Motion Control	axes	X, Y, Z
Build Volume	mm	130 x 100 x 80
Max Movement Speed	mm/s	80

Printing Specification

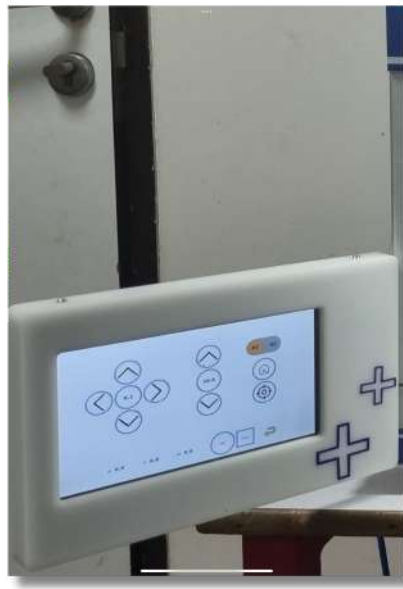
No. of syringe cartridges	unit	Dual Print Head System
Dispensing Needle		Luer lock blunt needle Luer lock dispensing cone tips
Layer Height	mm	0.1 - 0.4 microns
Max. print speed	mm/s	50
Building Platform	Type	Petri Dish (Diameter - upto 90mm) 6-well, 12-well, and 24-well cell culture plates Glass Slides
Bed Temperature Control	°C	10 °C to 60 °C
Syringe Temperature Control	°C	4 °C to 80 °C
No. of UV LEDs (max. 2)	nm	UV LED Wavelength 365 and 395/405

Dispensing Specification

Mechanism		Pneumatic based extrusion
Pressure	bar	0.1 to 4 bar

Operational Specification

Input Power		Single phase 220 VAC
Printer dimensions	mm	900 x 480 x 460 (Including External Screen)
Software		Avay OS



APPLICATION



Engineered Organs for transplanting



Drug discovery and Drug development



Disease Model Generation



Tissue Engineered Foods

OUR CUSTOMERS & COLLABORATORS:



ACHIEVEMENTS:



Winner of CII SERB Prime Minister's Grant for R&D



Winner of Best Idea Award at Controlled Release Society Conference



Winner of two BIRAC Grants



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