

Stereolithographic (SLA) 3D Printer

**NEW**

# ***M3DS-SA5***



- ◆ The Industry's First Ultra Soft / Flex Resin Printing (Shore Hardness Scale A5)
- ◆ Suitable for Professional Research & Product Development
- ◆ High Definition Printing
- ◆ Only Small Amount of Resin is Required

Specification	M3DS-SA5
Features	Floor model, Coater System
Maximum printing size (X × Y × Z mm)	150 × 100 × 170
Layer thickness (mm)	0.025, 0.05 (Switching by software)
X Y resolution (mm)	0.15
Maximum printing speed (mm/h)	20 (with layer thickness of 0.05mm)
Printing direction	Vertical lifting
Available Materials	S Rank Rubber-like Resin A Rank Rubber-like Resin Hypoallergenic Rubber-like Resin Heat-resistant Acrylic Resin
Light source	LED & laser hybrid over 8mW/ cm2 3000 lumen
Machine dimensions (W × D × H mm)	620 × 500 × 1140 (including caster)
Machine weight (kg)	52
Power supply / Power consumption	AC100V 50/60Hz 500W
Note	Adjustable coater speed

## Advantages

### ◆Soft / Flex Resin Printing

The unique structure and controls enable 3D printing of Shore Hardness Scale A5. MITS M3DS-SA5 is the only 3D printer covers printing with various hardness from hard plastic-like to soft skin-like.

### ◆High definition printing

With fine layer thickness, inclined surface or curved surface can be printed very smoothly. Objects with protruded shapes also can be printed.

### ◆High speed printing

MITS 3D printer adopted surface exposure using projector. Unlike laser scanning or FDM, one layer is printed as one face at a time. Therefore, no matter what the size of the objects, or number of objects to be printed, printing speed is faster, and time to completion is easily calculated.

### ◆Only small amount of resin is required

While most of stereolithographic 3D printers require large amount of resin to be put into resin pool, M3DS-SA5 requires small amount of resin. (M3DS-SA5: 350cc )

### ◆Mixable resins

Resin can be colored by mixing dye or pigment. Different resins can be mixed each other. As Acrylic resin and rubber like resin can be mixed together, objects with high ductility can be printed. By changing the mixture ratio, you can have ductility or softness of your choice.

### ◆Easy Maintenance

Simple machine structure enables users to maintain the machine by themselves very easily. MITS also provides optional maintenance services for a fee.

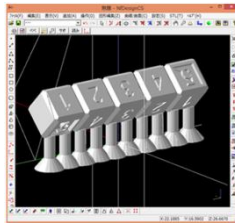
## Software

### !Slicer software included NF Design CS

This software generates horizontal slices that is required for 3D printing, by cutting 3D model that is created by 3D CAD software.

#### Major Functionalities

- 1.Importing STL data
  - 2.Creating support structure: Support structures are created based on the locations specified by a mouse.
  - 3.Produce slice data
- ▶Other major functionalities described above, this software includes simple STL editing functionalities.
  - ▶Optional software is available for processing point crowd and generating and editing STL data.



NF Design CS

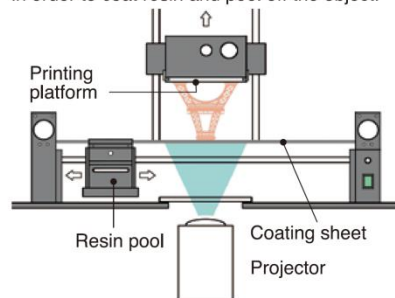
### !Printing software included

3D printing software with easy settings for parameter for exposure. Exposure time varies depending on types of resin as well colors. With this software, you can set suitable exposure time for the material to be used.

Based on our experience and results, we have prepared most suitable exposure parameters for each materials and colors.

### M3DS printing mechanism / Coater system

Before curing, resin for one layer is coated on the coating sheet. The projector radiates image for the layer and the layer is cured. The next step is peeling which the cured resin is peeled off the sheet. Lifting platform, coating resin, curing and peeling. These process is repeated until print is finished. Resin pool is moving left and right during print in order to coat resin and peel off the object.



Specifications and product details are subject to change without notice.



**MITS Electronics**

TEL.+81-422-60-3303 FAX.+81-422-60-3323

http://www.mitspcb.com/

E-mail: staff@mits.co.jp

1-2-21, Kajino-cho Koganei-Shi, Tokyo, 184-0002 Japan