MARS 3D PRINTER

ELEGOO

Thank you for purchasing Elegoo Mars 3D Printer.

Please unbox and inspect the printer upon receiving.
If you have any questions regarding the printer.

please contact us at service@elegoo.com or
euservice@elegoo.com (European and Asian customers).

Please read the instruction carefully before you use the printer.

Multiple language instructions and software are available
to download from www.elegoo.com/download.

Follow us on Facebook and get FREE FEP film

Facebook: @ElegooOfficial

Instagram: @Elegoo_Official

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**Notice:**
please contact us at service@elegoo.com
or euservice@elegoo.com (European and Asian customers).

- Please keep the Mars 3D Printer and its accessories out of the reach of children.

- When you use the printer for the first time, you would need to adjust it before printing(Unbox and Test).

- If the printing failed, you would have to clean the resin tank and change resin otherwise it may cause damage to your printer.

- Please only fill 1/3 of the resin tank and don't fill it up.

- Please use 95% degree (or higher) ethyl alcohol or isopropyl alcohol to wash your model.

- Please use the printer indoors and avoid direct sunlight and dusty environment.

- Please keep your printer away from water or damp environment.

- Please wear a mask and gloves before using and avoid direct skin contact.

- If you want to print models with sharp edges please be careful when removing it from the build platform.

- Please don't disassembly the Mars 3D Printer by yourself, which will cause your warranty expired. If you have any problems with the printer please contact us at service@elegoo.com and if you run into emergency issues please shut down the power of the printer.

Package List
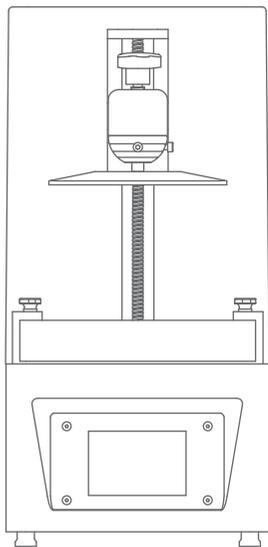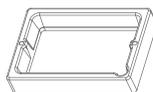
Build Platform

Resin Tank

U Disk 2GB

Mask

Gloves * 3
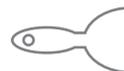
Scraper

Instruction

Funnel * 10

Measuring Cup

Backup screws

Adapter 60w

Tool Kit

TOOLS

Mars 3D Printer

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Printer Components
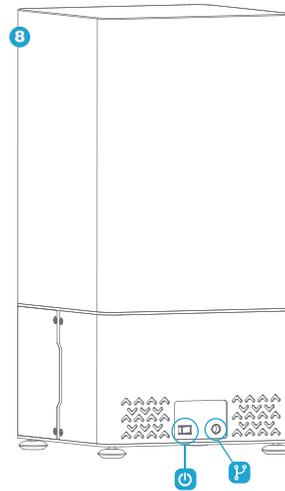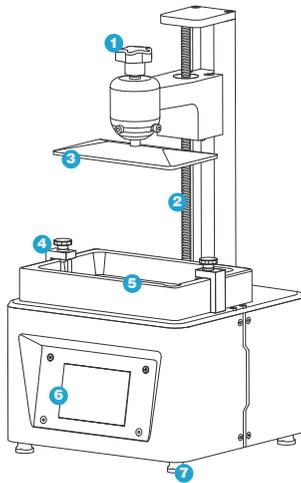
1	Rotray Knob	**3**	Build Platform	**5**	Resin Tank	**7**	Leveling Pad
2	Z Axis	**4**	Rotray Knob	**6**	Touchscreen	**8**	Cover

MARS Printer Tech Specs

System:	ChiTu L5.5 Series
Operation:	3.5 Inch Touch Screen
Slicer Software:	ChiTu DLP Slicer
Connectivity:	USB

Printing Parameter

Technology:	LED Display Photocuring
Light Source:	UV Integrated Light (wavelength 405nm)
XY Resolution:	0.047mm (2560*1440)
Z Axis Accuracy:	0.00125mm
Layer Thickness:	0.01-0.2mm
Printing Speed:	22.5mm/h
Power Requirements:	110-220V 55/60Hz 12V5A 60W

Printing Specification

|	
Dimensions:	7.87in (L)*7.87in (W)*16.14in (H) 20cm (L)*20cm (W)*41cm (H)
Build Volume:	4.72in (L)* 2.68in*(W)*6.10in (H) 12cm (L)*6.8cm (W)*15.5cm (H)
Weight:	11lbs (5kg)

Hardware Specification

Unbox and Test

1. Take out the printer carefully and take off the plastic film.

2. Connect power cable to printer and power supply.

3. Please insert the build platform, fasten the rotary knob and loose the screws (see Picture 1).
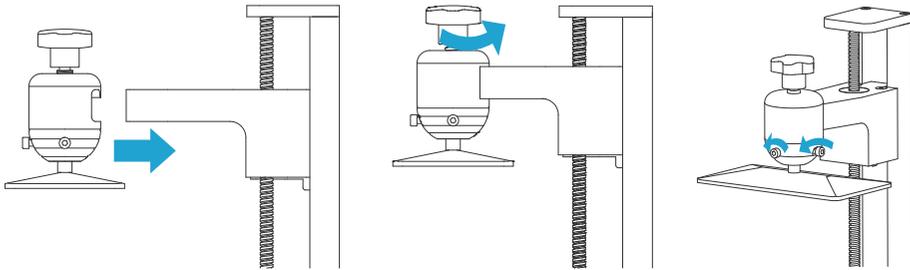
(Picture 1)

4.Remove the resin tank and put an A4 paper between the build platform and 2K LCD screen and click "Move Z axis to zero". (See Picture 2)When the build platform stops please use one hand to press it and make sure it's in the central position then fasten it using the Allen wrench.
Put back the resin tank and fasten the screws.(See Picture 3).

(Picture 2)

Please fasten the #1
screw first then the #2 screw.

#1 #2

A4 Paper

(Picture 3)

0.1mm | 1mm | 10mm
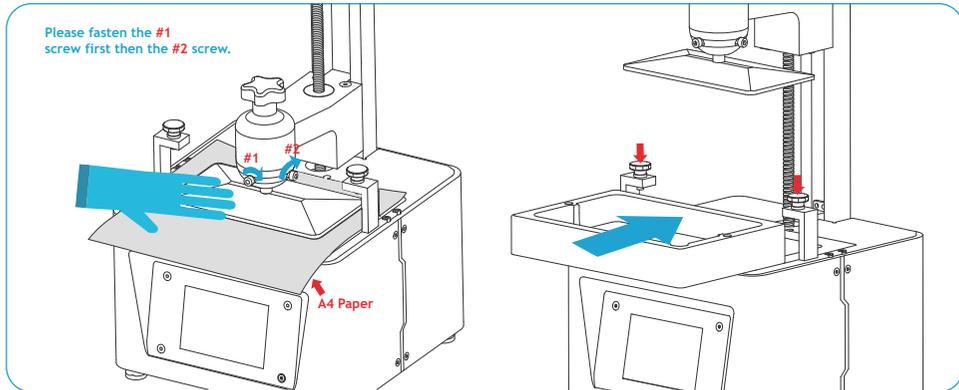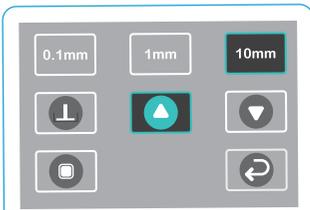
(Picture 4)

**5. Press "10mm" – then press "up"
for 10 times, then Z axis will go
up about 100mm (See Picture 4).**

Tool | System | Print

Manual | Exposure | Set Z=0

Stop | Back

Please set the exposure time
of the test image:

3 S | + | −
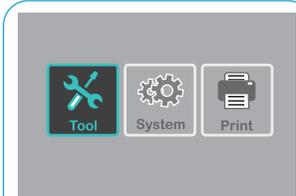
Next

(Picture 5)

**6. Test the UV lights by pressing
"Tool" – "Exposure" – "Next"
(See Picture 5). If the 2K screen
can display a complete rectangle
thenthe UV lights work perfectly.**
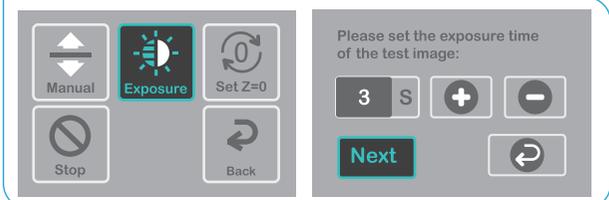
Test Printing

1 Model Printing

Plug the USB to your printer, wear your mask and gloves and then add resin slowly to the 1/3 level of the tank. (Avoid direct contact with your skin) Select Model file "Rook.cbddlp" (See Picture 6) and start printing. Put on the cover and avoid direct sunlight and make sure the printer is leveled and not shaky.
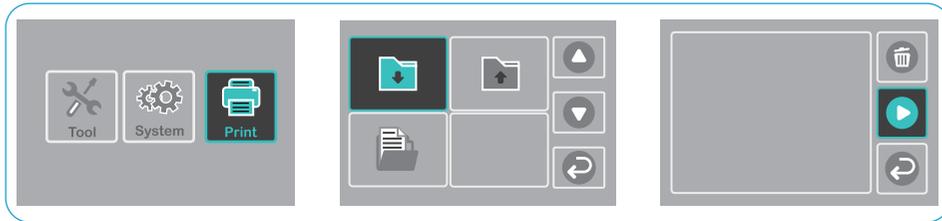

(Picture 6)

If you found resin not enough to complete the model during printing you can press Pause and add more resin into the tank and then press Print to continue printing.

2 Wash Your Print and Clean the Tank

Once printing is completed please wait until the resin on the build platform doesn't drop any more. Loose the rotary knob and remove the build platform. Use scraper to remove the model and wash it with 95% degree(or higher) ethyl alcohol(See Picture 7).
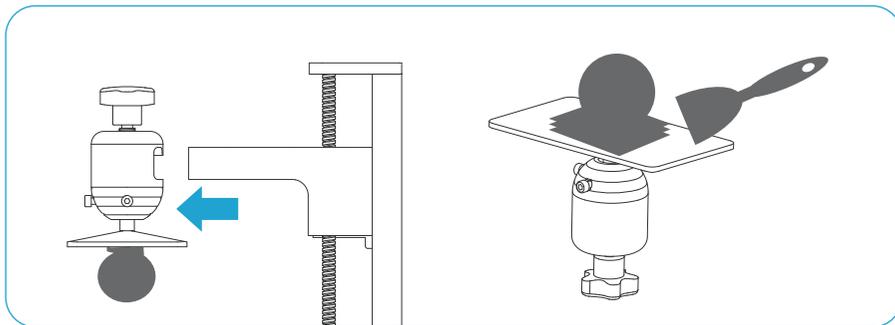
(Picture 7)

Elegoo ChiTu Box

1 Install ChiTu Box
ELEGOO ChiTu Box is saved in the U Disk. Choose the right version and install it on your computer or if you prefer you can download the latest version from www.elegoo.com/download .

2 How to Use ChiTu Box
After installation completed, run ChiTu software. Click File – Open File, then open your own 3D model files (.stl type) or you can download some samples from our website www.elegoo.com .
Left click the model and use options on the left menu you can control and change the visual angle, size and position of the model.

Other operations:
1) Long press the left click and drag the model to the position you want.
2) Scroll the mouse wheel to zoom in or zoom out the model.
3) Long press the right click to see different perspectives of the model.

3 ChiTu Box Setting
3.1 Click "Parameter Settings" and choose ELEGOO MARS as your default printer.
(See Picture 8).

Please choose your machine

ELEGOO MARS

- [ ] AnyCubic Photon
- [x] ELEGOO MARS
- [ ] Orboat DIOO
- [ ] Phrozen Shuffle
- [ ] Phrozen Shuffle XL

Confirm   Cancel

(Picture 8)

Settings

| Machine | Resin | Print | Infill | Gcode | Advance |

Name: ELEGOO MARS   Machine Type: ELEGOO MARS
Resolution: X: 1440 px   Mirror: LCD_mirror
             Y: 2560 px
Lock Ratio: ☑
Size: X: 68.040 mm
       Y: 120.960 mm
       Z: 150 mm

Import...   Export...
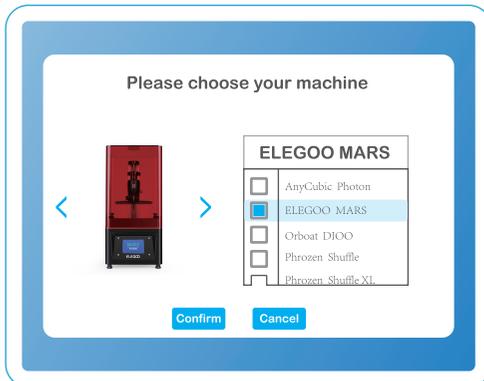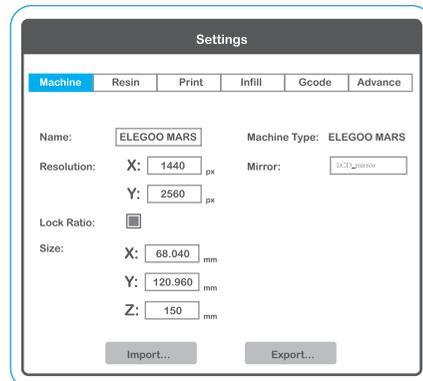
(Picture 9)

3.2 Build Volume
Below are the default parameters and you don't need to change them. If the model is bigger than printer build volume you would need to change its size with ratio locked. (See Picture 9)

3.3 Resin Parameter (See Picture 10)

Resin Density: 1.1g/ml

Resin Cost: you can input your cost of resin and after slicing you will see how much it costs for your model

Settings	Settings
Machine · **Resin** · Print · Infill · Gcode · Advance	Machine · Resin · **Print** · Infill · Gcode · Advance
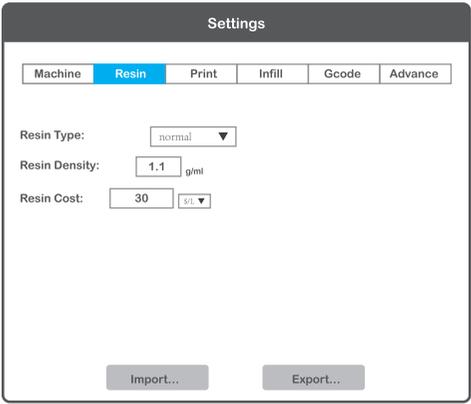
Settings

| Machine | Resin | Print | Infill | Gcode | Advance |

Resin Type: [normal ▼]

Resin Density: [1.1] g/ml

Resin Cost: [30] [$/L ▼]

Import…   Export…
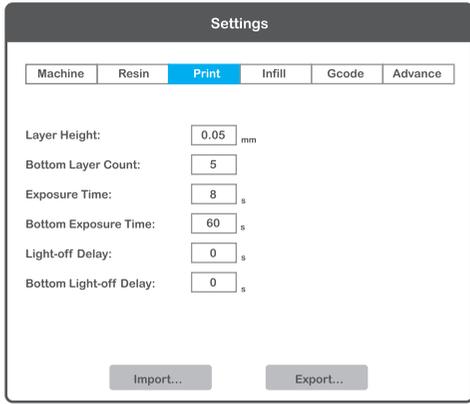
Settings

| Machine | Resin | Print | Infill | Gcode | Advance |

Layer Height: [0.05] mm

Bottom Layer Count: [5]

Exposure Time: [8] s

Bottom Exposure Time: [60] s

Light-off Delay: [0] s

Bottom Light-off Delay: [0] s

Import…   Export…

(Picture10)   (Picture 11)

3.4 Parameters (See Picture 11)

Layer Height: recommended height is 0.05mm but you can set it from 0.01-0.2mm. The higher you set, the longer time it will take for exposure time of each layer.

Bottom Layer Count: set from 3-6 layers

Exposure Time: set from 6 – 15s according to the layer height and complexity of the model, the thicker you set, the longer time will be needed.

Bottom Exposure Time: set from 30 – 80s, the longer you set, the stickier the bottom will be on the build platform.

Light-off Delay/Bottom Light-off Delay: Default parameters and you don't need to change them

4 Save Model

After setting up all the parameters, click "slice" and once it's done, click "export sliced files to U Disk or SD Card"then plug the U disk to your printer, start printing. **(See Picture 12)**
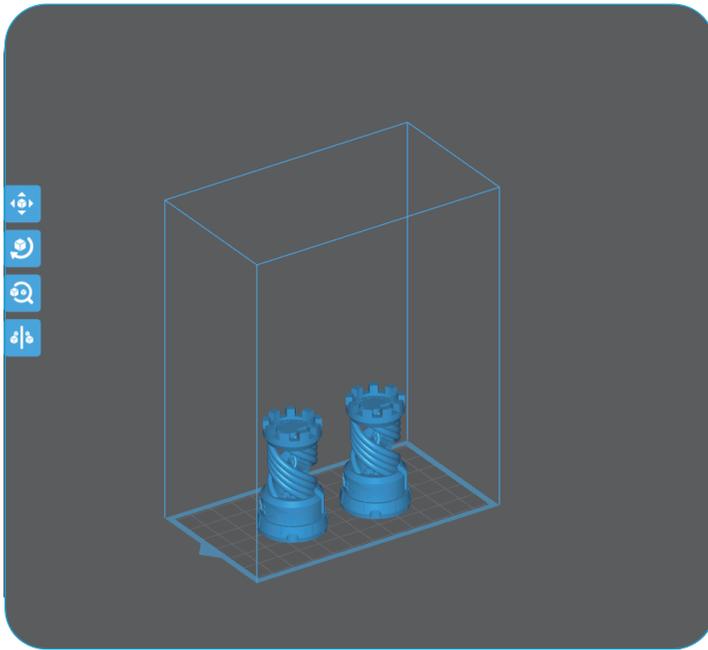
FAQ

1. Model doesn't stick to the build platform
--Bottom Layer exposure time is too short please add more time.

--Model bottom has very small contact with the build platform and please add more bottom layers.

--Leveling is not well set and it will cause first layer too thick or one side is very thick
 and the other side is very thin.

2. Model layer breakage
--Printer is shaking during printing.

--Release liner film is very loose due to long-time usage and need to change.

--Build platform or resin tank is not fastened.

3. MARS can't work
We offer a full one-year warranty on the printer and 3-month warranty for the screen.

If your printer doesn't work please contact us at service@elegoo.com or euservice@elegoo.com

and as to better help and solve problems for you please include your order ID in your email.


4. Printing failure
If the model was not completely printed or failed, there might be some residues left in the resin, which can be filtered out using a funnel when you save the rest resin back into its sealed bottle. If you don't filter out the residues the platform may cause damage to the 2K Photocuring screen when you're printing next time. As to the left resin on the platform and tank you can clean and wipe them up using tissues.

5.Maintenance

1.If Z axis keeps making friction noises, please add some lubricant to it.

2.Please do not use sharp or pointy objects to scrape the release liner film in case of damages.
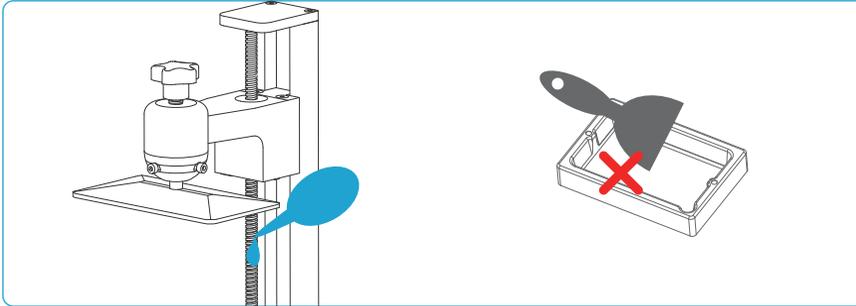
3.Be careful when you remove the build platform in case you may smash the 2K Photocuring screen.

4.If you don't use the printer in the next 48 hours remember to put the left resin in the tank back to its bottle and seal it.And if there are any residues please use a filter to filter them out.
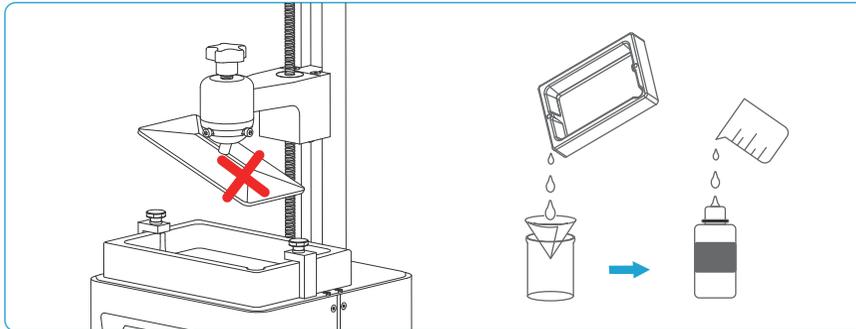
5.Please clean up the build platform and the printer using tissues or ethyl alcohol once you complete printing.

6.Please clean up the resin tank before you change to different colors of resin .
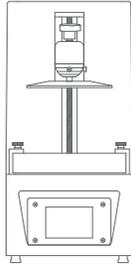
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