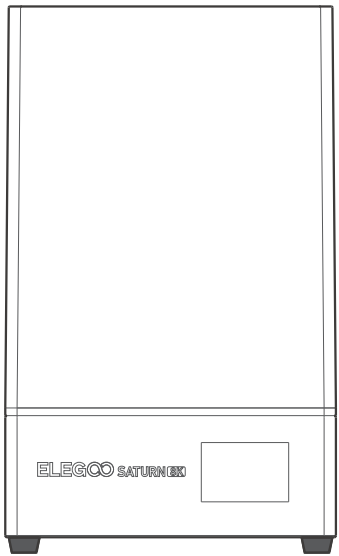
ELEGOO

SATURN 8K
3D Printer



www.elegoo.com

Thank you for purchasing ELEGOO SATURN 8K 3D printer.

This instruction applies to Saturn 8K printers.

Please unbox and inspect the printer upon receiving it.

If you have any questions regarding the printer, please contact us at 3dp@elegoo.com.

Please read the instruction carefully before you use the printer.

ELEGOO

Notice:

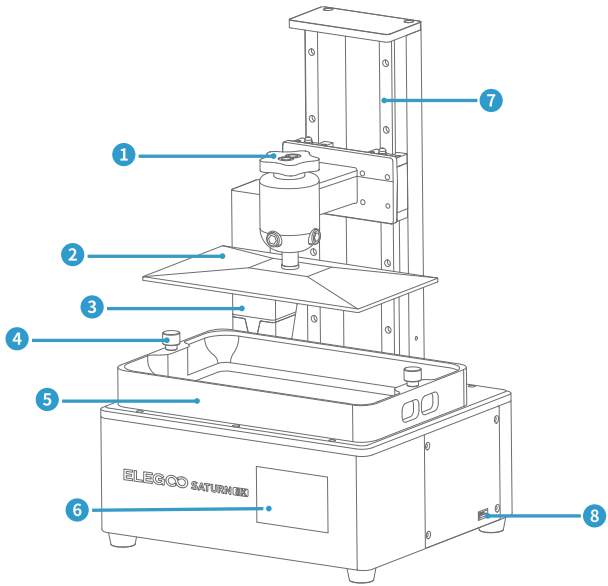
If you need technical support please contact us at 3dp@elegoo.com

- Please keep the Saturn 8K 3D printer and its accessories out of the reach of children.
- When you use the printer for the first time, you would need to level it refer to the leveling tutorial before printing.
- If the printing failed, you would have to clean the resin tank and change resin otherwise it may cause damage to your printer.
- Please fill 1/3 of the resin tank only and don' t over fill.
- Please use 95% (or higher) ethyl alcohol or isopropyl alcohol to wash your model unless you are using water washable resin.
- Please use the printer indoors and avoid direct sunlight and dusty environment.
- Please keep your printer away from water and dump environment.
- Please wear a mask or gloves before using and avoid direct skin contact.
- Please don' t disassemble the Saturn 8K 3D printer by yourself, which will cause your warranty expired.
- **If the FEP of resin tank is white or high printing failure rate, please replace the FEP release film in time.**
- If you run into emergency issues, please shut down the power of the printer first, and if you have any problems with the printer, please contact us at 3dp@elegoo.com.

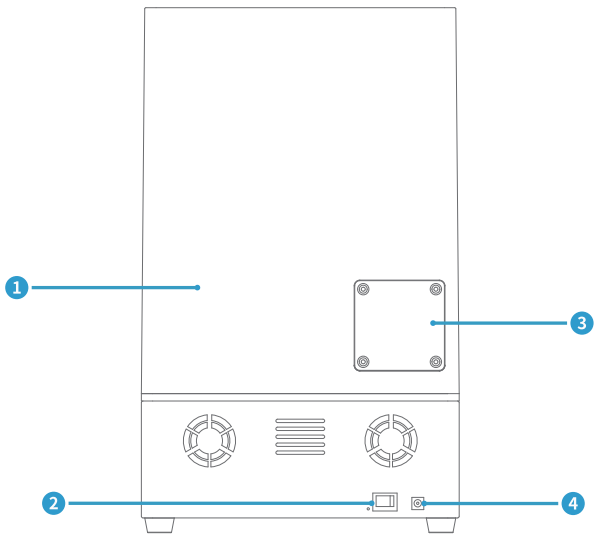
SATURN 8K 3D Printer Tech Specs

System: EL3D-3.0.1 Operation: 3.5 Inch Touch Screen Slicer Software: CHITUBOX Connectivity: USB	System Parameters
Technology: MSLA Photocuring Light Source: UV Integrated Light XY Resolution: 0.0285mm (7680*4320) Z Axis Accuracy: 0.00125mm Layer Thickness: 0.01-0.2mm Printing Speed: 30-70mm/h Power Requirements: 100-240V 50/60HZ 24V 5A	Printing Specification
Dimensions: 280mm (L) *240mm (W) *462.5mm (H) 11.02in (L) *9.45in (W) *18.21in (H) Build Volume: 218.88mm (L) *123.12mm (W) *210mm (H) 8.62in (L) *4.85in (W) *8.26in (H) Weight: 24.25lbs(11kg)	Hardware Specification

Printer Components

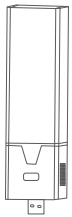


1 Rotary Knob	2 Build Platform	3 Air Purifier	4 Rotary Knob
5 Resin Tank	6 3.5 Inch Touch Screen	7 Z Axis	8 USB



1 Cover
2 Switch
3 Vent Cover
4 Power Socket

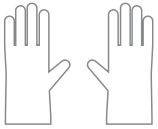
Package List



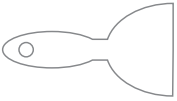
Air Purifier

U Disk

Mask



Gloves



Scraper

Funnel

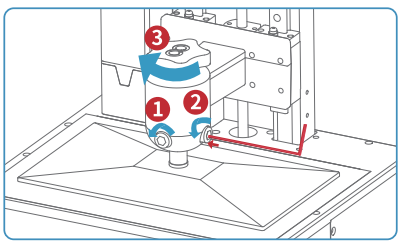
Backup Screws

User Manual

Adapter

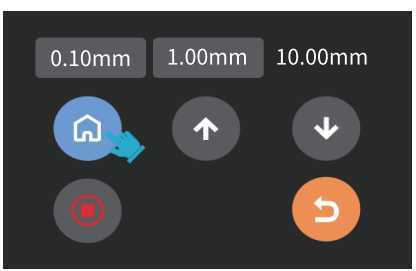
Tool Kit

Leveling

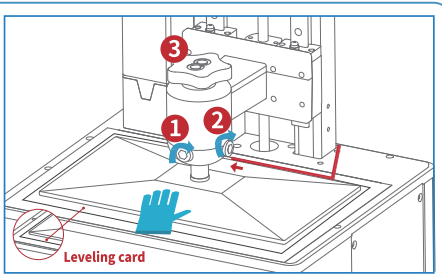


(Picture 1)

1. Take out the resin tank carefully, first fasten the rotary knob(❸) of the Saturn 8K machine build platform, then loosen and level the two screws (❶ ❷) in turn with an M6 Allen wrench.(See Picture 1)



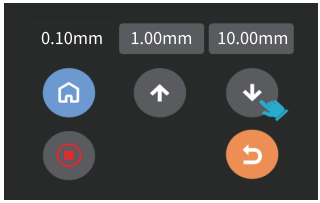
(Picture 2)



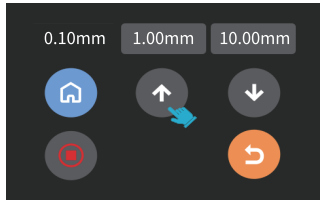
(Picture 3)

2.Put a Saturn 8K leveling card between the build platform and the LCD screen, touch the screen to click "Move Z axis to zero". (See Picture 2) When the build platform stops moving, use an M6 Allen key to tighten the leveling screws diagonally, please be sure to tighten the screws in the order of the serial number (❶ ❷).(See Picture 3)

3. Since the distance between the build platform and the screen will be changed during the process of tightening the screws of the build platform, if you find that the leveling card of Saturn 8K can be pulled out with no resistance, please click the "down" button (step value is 0.1mm) until there is slight resistance to pull out the Saturn 8K leveling card. (See Picture 4)
If you find the resistance of pulling out the Saturn 8K leveling card is too high, please click the "up" button (step value is 0.1mm) until the Saturn 8K leveling card can be pulled out with slight resistance. (See Picture 5)



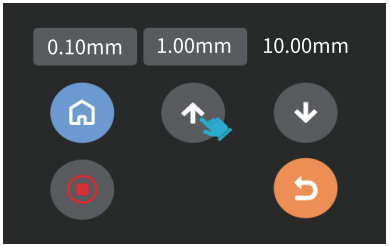
(Picture 4)



(Picture 5)

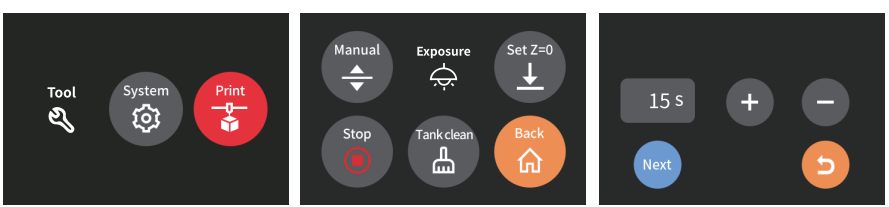
(Picture 6)

4. After finishing the above leveling, set the current position of Z-axis as the initial height of the first printing layer. The operation is as follows: Return to the previous interface and click "Set Z = 0". At this time, a message will pop up on the screen as shown in the picture. Then click "confirm" to finish.(Note: "Set Z=0" only takes effect in print file mode.) (See Picture 6)



(Picture 7)

5. Press the button on the touch screen 10 times until the build platform rises to 100mm. Now, the leveling is completed, and put resin tank back and fasten the screws to ready for printing. (Every time you clict the on the touch screen, the Z-axis will rise 10mm.) (See Picture 7)



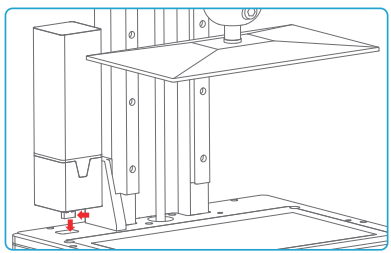
(Picture 8)

6. Test the screen and UV lights by pressing the "Tools"-"Exposure"-"Next" button. (See Picture 8) If the LCD screen can display the "ELEGOO TECHNOLOGY www.elegoo.com", then the printer can work perfectly.

Test Printing

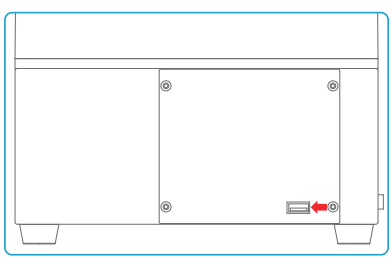
1. Model Printing

Before printing, insert the air purifier into the USB port with the front side facing out, and then the green light will light up, indicating that the air purifier is working normally. (See Picture 9)



(Picture 9)

Put the resin tank back and fasten it tightly, wear a mask and gloves (avoid direct contact with the skin), and then add resin slowly to the 1/3 level of the tank, making sure that the printer is level and will not wobble.Then plug the USB into the printer (See Picture 10), select the model file "Rook.ctb" and start printing.

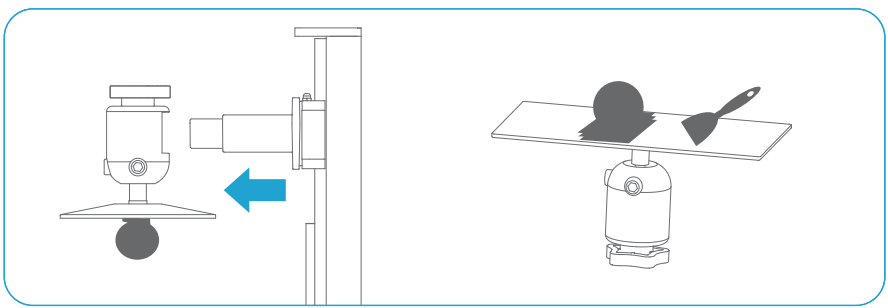


(Picture 10)

If the resin is not enough to complete the model in the printing process, You can press the "pause" button, and add more resin to the resin tank, then press the "print" button to continue printing.

2. Wash Your Print and Clean the Tank

Once printing is completed, please wait until the residual resin on the build platform doesn't drop any more, then loosen the rotary knob of the build platform and remove the build platform. Use the scrapper to remove the model and wash it with 95% (or higher) ethyl alcohol if you are using standard resin or ABS-like resin. If you use the water washable resin, you can directly wash it with running water. (The rinse water is stored in a container). (See Picture 11)



(Picture 11)

1. Install Chitu Box

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

2. How to Use Chitu Box

After installation is complete, run the ChiTu software. Click "File - Open File", and then open your own 3D model files (.stl type) or you can download some samples from our website www.elegoo.com. You can control and change the visual angle, size and position of the model by left-clicking the model and use the options on the left menu.

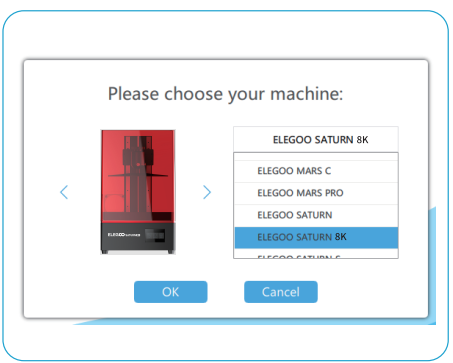
Software

Other Operations:

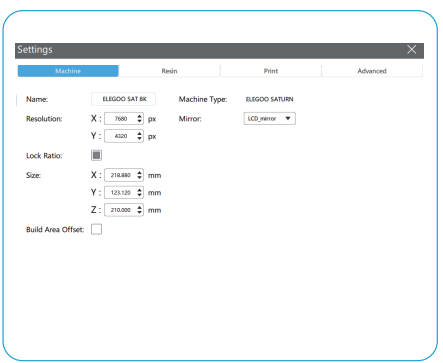
1) Long press the left click and drag the model to the position you want
2) Scroll the mouse wheel to zoom in or zoom out the model.
3) Long press the right click to see different perspectives of the model.

3. Chitu Box Settings

3.1 Click "Parameter Settings" and choose ELEGOO Saturn 8K as your default printer.(See Picture 12)



(Picture 12)



(Picture 13)

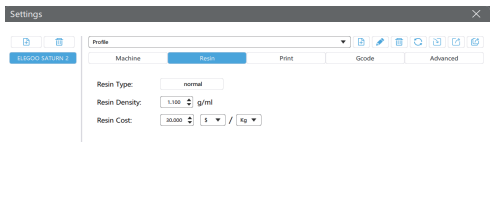
3.2 Build Volume

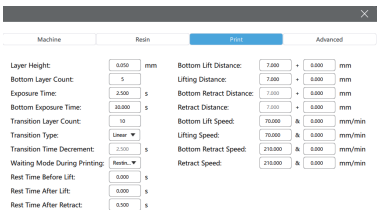
The default parameters don't need to change (See Picture 13). If the model is larger than the printer build volume, the corresponding direction (X, Y, or Z direction value) needs to be modified proportionally.

3.3 Resin Parameters (See Picture 14)

Resin Density: 1.1g/ml

Resin Cost: You can enter the unit price of your resin, and after slicing you will see how much it costs for your model.





(Picture 14)

3.4 Parameters (See Picture 14)

Layer Height： Recommended height is 0.05mm but you can set it from 0.01-0.15mm 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 1.5-3s according to the layerheight and complexity of the model, the thicker you set, the longer time will be needed.**(When printing large models or small models with tiny supports, you would need to increase layer exposure time to guarantee your printing result.)**

Bottom Exposure Time: Set from 25-40s, the longer you set, the stickier the bottom will be on the build platform.

Light-off Delay/Bottom Light-off Delay: Maintain default parameters and you don’ t need to change them.

Bottom Lift Distance: When printing the bottom layers, it is recommended to set the lifting distance

Lifting Distance: When printing the normal layers, it is recommended to set the lifting distance of the buile plate to 3-5mm.

Bottom Lift Speed: When printing the bottom layers, it is recommended to set the lifting speed of the build plate to 70mm/min.

Lifting Speed: When printing the normal layers, it is recommended to set the lifting speed of the build plate to 70mm/min.

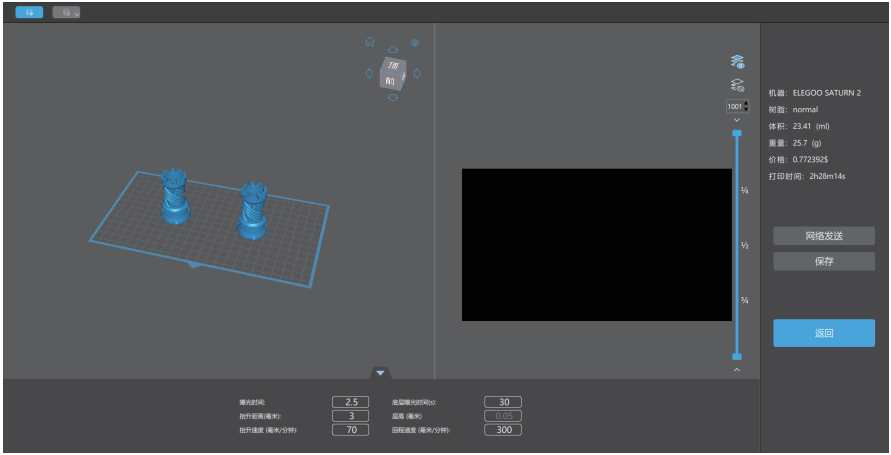
Retract Speed： When printing the bottom layers, it is recmmended to set the retract speed of the build plate go 70mm/min.

Transition Layer Count: Take above settings as an example, bottom exposure time is 30s/layer and after 5 layers, the exposure time will decrease from 30s to 2s gradually over 10 layers, which will greatly enhances the printing success rate. If you are printing small modls, you con reduce rhe Transition Layer Count.

Transition Type: linear transition.

4. Save Model

After setting up all the parameters, click "slice", and once it's done, click "export sliced files to U Disk", then plug the U disk to your printer and start printing. (See Picture 15)



(Picture 15)

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 while 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 be changed.
Build platform or resin tank is not fastened.

3. Abnormal Screen Exposure

lIf your printer doesn't work please contact us at 3dp@elegoo.com.
and as to better help and solve problems for you, please add your order ID in your email.

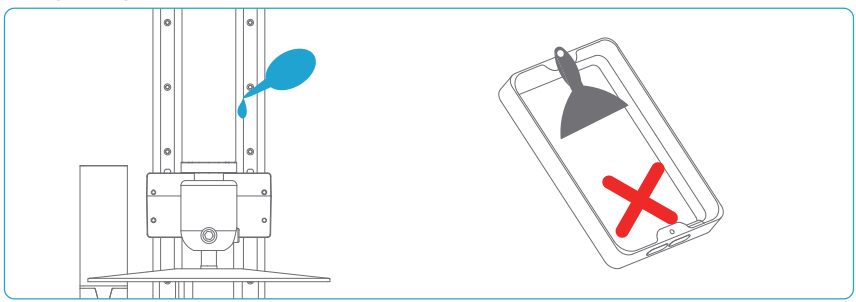
4. Printing failure

lf 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.
lf you don't filter out the residues the platform may cause damage to the LCD screen when you're printing next time.
As to the residual resin on the platform and tank,you can clean and wipe them up using tissues.

5. Maintenance

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

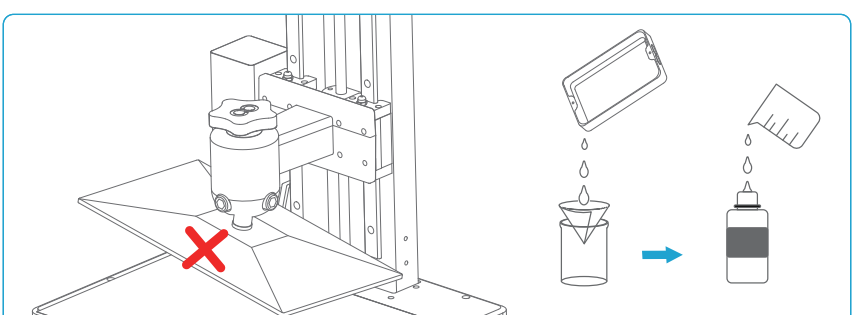
2.Please do not use sharp or pointy objects to scrape the resin tank in case of causing damages to release liner film.



3.Be careful when you remove the build platform in case you may smash the 8K LCD screen.

4.Remember to pour the rest of the resin in the tank back into the resin bottle and seal it well if you don't use the printer in the next 48 hours.

And if there are any residues please use a filter to filter them out.

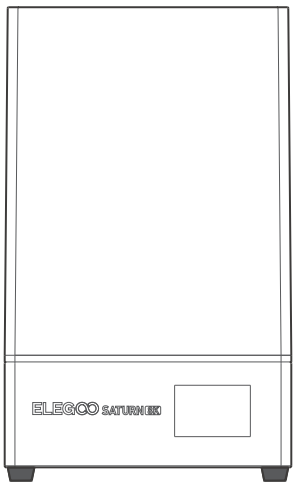


5.Please clean up the build platform and the printer using tissues or ethyl alcohol once you complete printing.

6.Please clean up the resin tank before changing another colors of resin.

Warranty Service

1. ELEGOO provides a 1-year warranty for equipment damaged by non-human factors, except for filament, LCD screen, and FEP release film.
2. The LCD screen comes with a 6-month non-artificial damage warranty.
3. No warranty is provided for personal modification or disassembly of equipment.



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