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Phrozen Shuffle 4K Operating Instruction

Congratulations on joining the Phrozen 3D printer. When you receive the Phrozen Transform, please check the contents of the package inside of the box.

General content includes：

Phrozen Shuffle 4K printer * 1 pc

• Print stage and resin tank * 1 set

• Print Accessibility Tool Set

o Soft scraper * 1 pc

o Hard scraper * 1 pc

o Funnel * 1 pc

o Gloves * 1 set

• Black power cord * 1 pc

If you have any missing component or problems, please contact the Phrozen team directly

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The first time start the machine

Power on

Connect the black power cord to the machine and turn on the power switch above the socket. When the power is turned on, the machine will start to open the system, and the first start will take about 2 minutes。

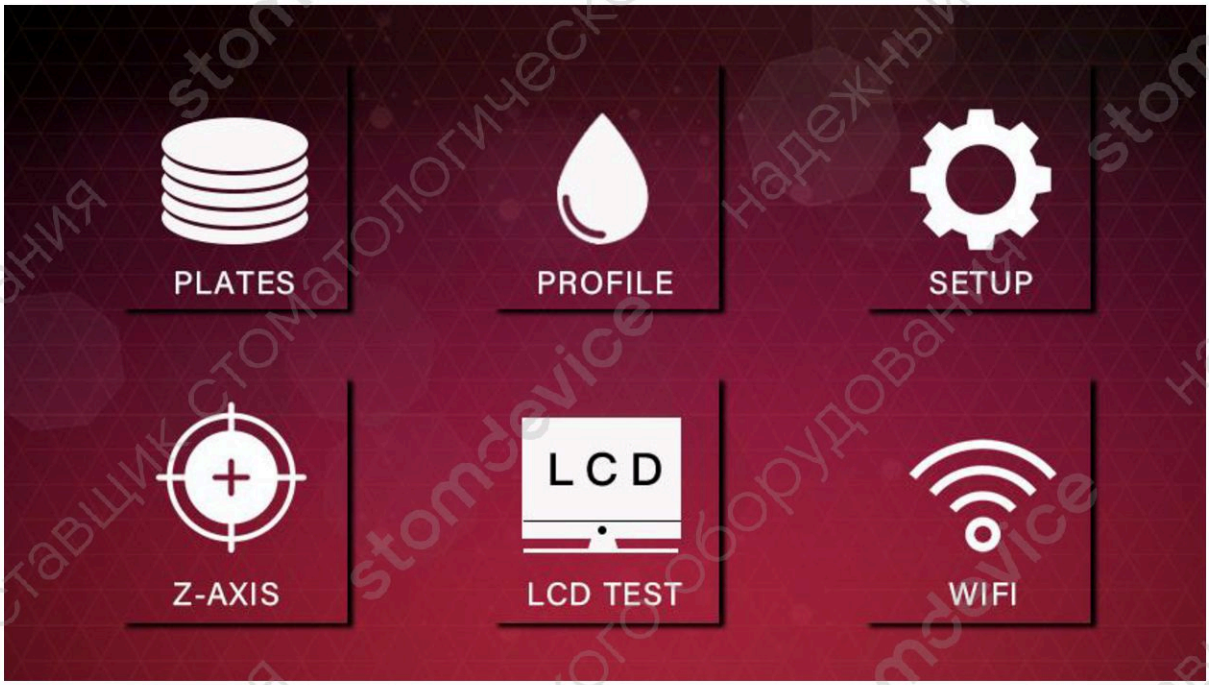


The opening screen is as follows:

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After opening, entering the main screen of the system, the boot is finished.



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Z-AXIS Calibration

- Z-axis calibration: This is the only place where the Phrozen Transform needs to be corrected. It is suggested use the touch panel on the machine. The detailed steps are as follows：
- 1.Open the front cover of the machine



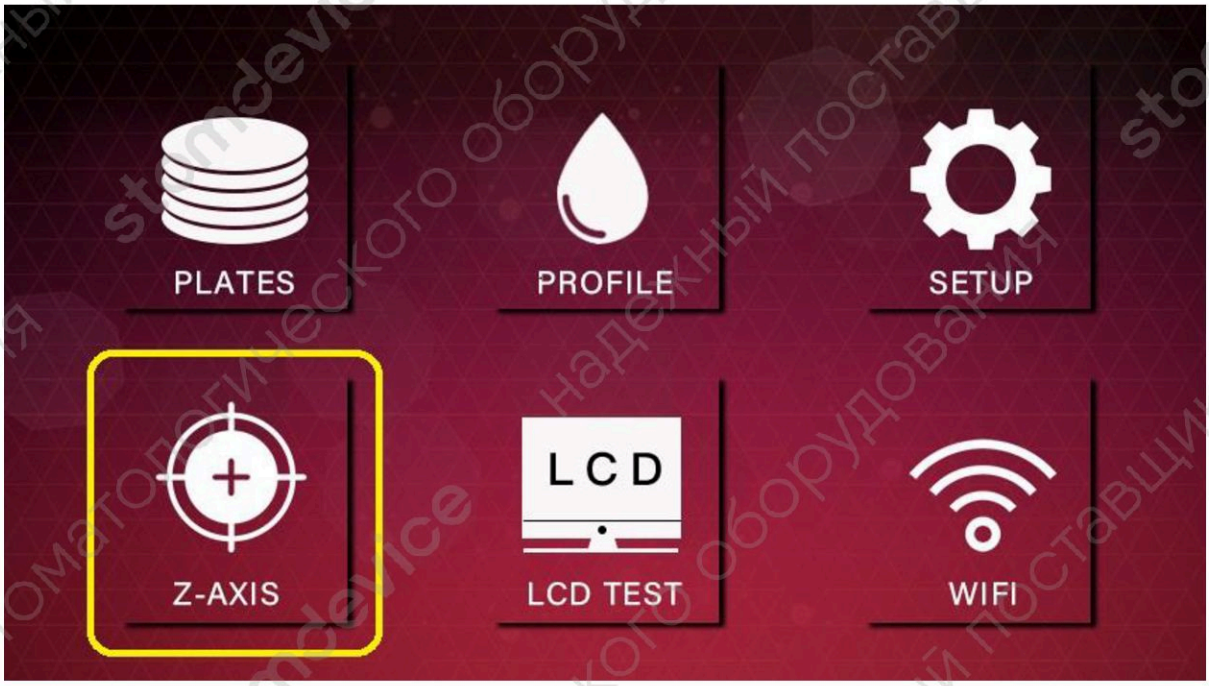
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2. Confirm that there is no foreign matter on the printing stage and remove the resin tank. Place an A4 blank sheet over the LCD screen



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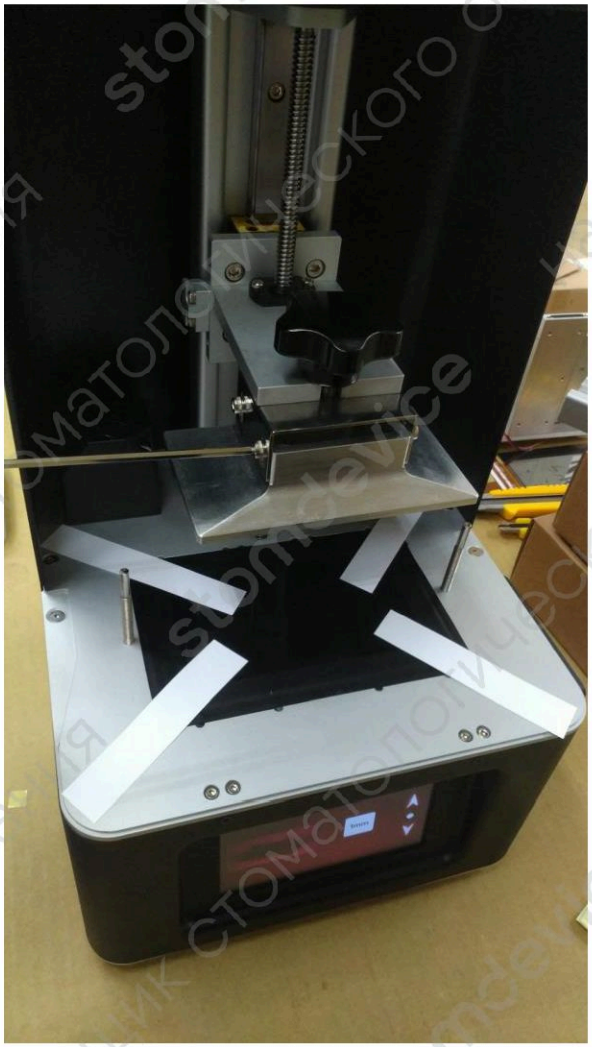
2. Click on the Z-axis calibration icon on the homepage



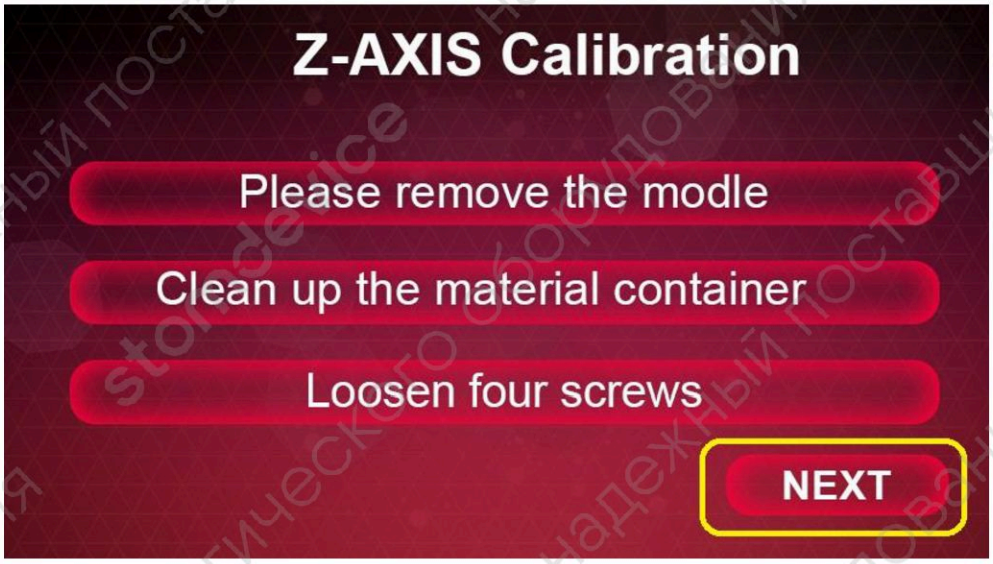
3. Click on the right icon to enter the calibration function.



5. 5.Use the hex wrench to loosen the four fixing screws on the side of the printing stage and click Next.



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6.The machine will transport the printing stage to the bottom. At this time, the printing stage will be flattened with blank paper. One hand will gently fix the stage, and the other hand will lock the table screw. After the four screws are locked, the Z-AXIS calibration is done





7. Press DONE to complete the calibration procedure.



8. The machine will raise the stage to the highest level to finish the Z-axis calibration

9.The timing of Z-AXIS calibration

●The first time use the machine

●After replacing the screen

●Because the Z-AXIS calibration is not correct cause the printing fails.

●When long-distance movement or strong relocation causes the machine to shake.

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Start printing

Pour resin



1.After the machine calibration is completed, the resin can be introduced into the tank after the resin tank is installed back.

2.Shake evenly before pouring to avoid poor molding

3. If the resin is already in the tank, please mix and print again.

4. Please do not pour the resin over 1/2 of the height of the tank.

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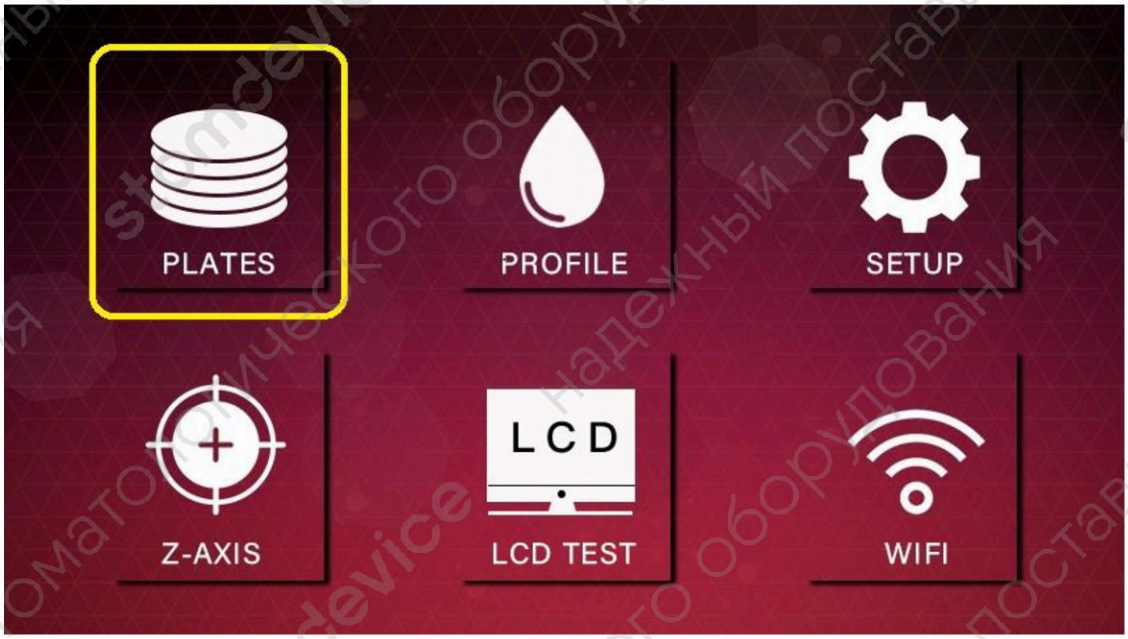
●UPLOAD FILES

USB connection method: After using the computer to process the 3D image file. The .phz file is transmitted to the USB, and the 3D image file is uploaded to the machine table by using the USB, and the machine is directly operated through the touch panel in front of the machine. Insert the USB plug into the port on the back of the machine. After inserting, the touch panel on the front of the machine can directly read the file on the USB and operate the machine with the touch panel



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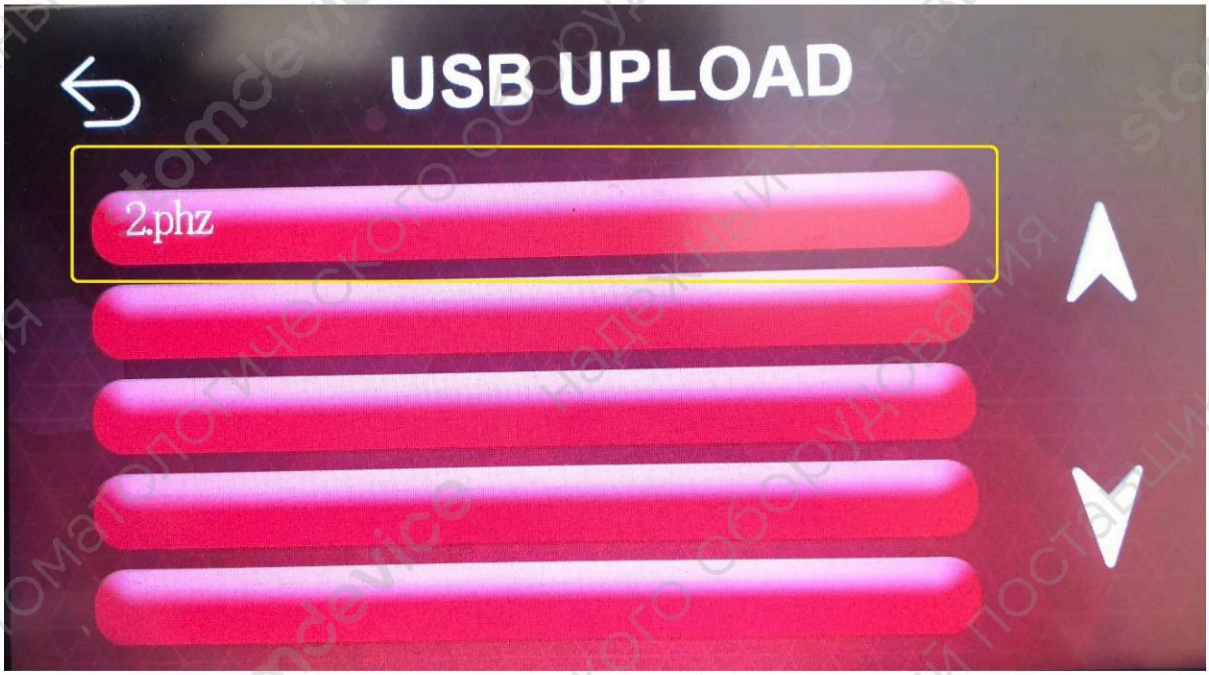
1. After clicking PLATES, enter the import file screen.



2. Click to read by USB.



3. Select the file to be imported.



4. 4. The file will be displayed on the PLATES screen after importing it.



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5. After importing the file, select the file to be printed

6. After entering the preview screen and confirming that the print information is correct, press the confirmation pattern to start printing

7. Before starting to print, please make sure that the stage and resin tank have no foreign matter to avoid crushing the LCD panel.



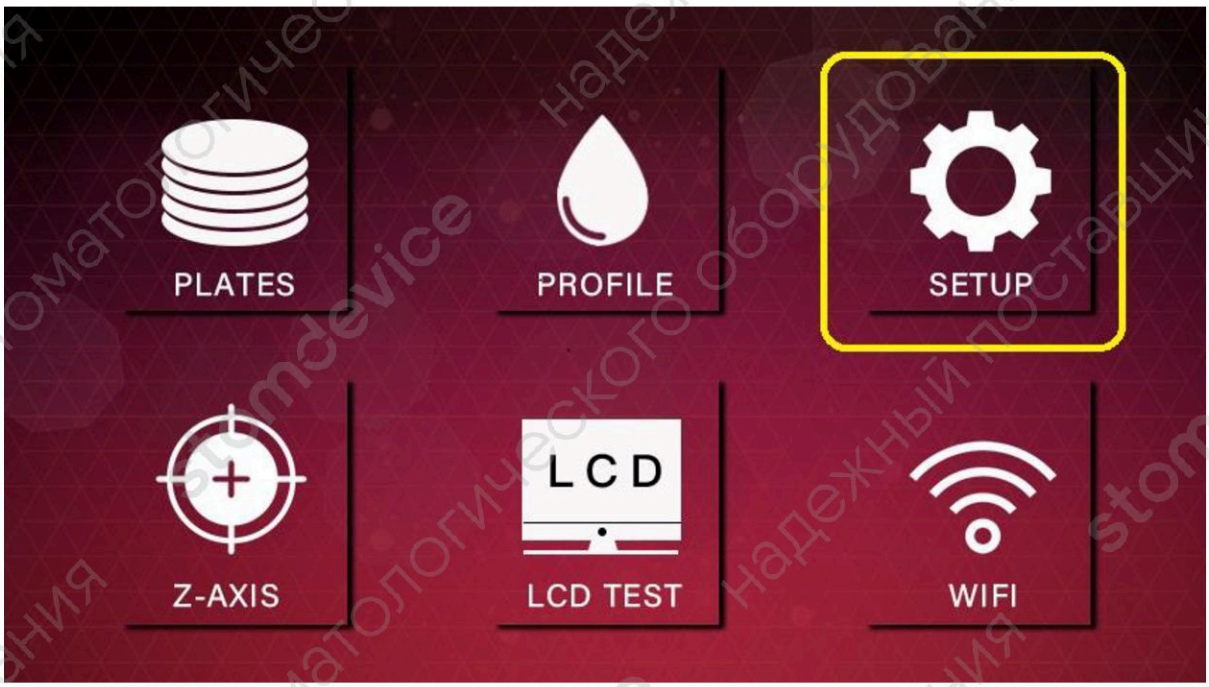
- Start printing
- Print completed, after printing process
    - Take the printed items
        - It is generally suggested to take the download station and use a hard scraper to slowly lift the model from the joint between the model and the stage.
        - Do not force hard stamps, which may damage the model.

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- When using a hard scraper, please take care of the position of the stage and avoid the blade cut the hand during the removal process.

- Shutdown

1. Touch the screen operation: On the main screen, click SETUP



2. After clicking, turn off the power of the machine according to the instructions.

- Empty the tank
- After loosening the screws on both sides of the tank, remove the resin tank.
- Take an opaque, sealable can, such as a coffee can.

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- Insert the included funnel into the tank (you can place the filter in the funnel) and pour the liquid hopper into the jar at the four corners of the tank.
- Use the soft scraper to gently scrape off the remaining resin. If there is any residue adsorbed on the bottom of the tank, it can be easily removed by pouring it into alcohol for 10 minutes.
- Sealed cans with old resin. Set the cool place, use it again next time

Precautions

- o If the resin is found to be insufficient in the middle of printing, please replenish the resin immediately. A good feeding timing is to pour the resin between the printing layers, the stage is raised, and the LCD is not lit.
- o When cleaning the bottom of the tank, use a napkin that does not drop the chips.
- o If the resin is sprayed onto the machine, wipe it off immediately.
- o If the resin is left in the tank, remember to stir evenly before using it next time.
- o If it is necessary to remove the resin tank, it is strongly suggested to perform the removal after shutting down.

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Aftertreatment

- Cleaning: Soak the model in more than 95% alcohol and place it in the ultrasonic machine for 30 seconds before removing it. If the structure is complicated, the process can be repeated 2 or 3 times, the soaking time should not be too long to avoid the model cracking.
- • Air drying: Dry the model by placing the model in a cool place for more than 30 minutes
- • Second curing: The curing mode is cured by a secondary curing lamp. The curing time is determined by the intensity of the light source. Generally, the nail lamp issuggested for 3-5 hours, and the Phrozen Cure professional curing

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machine is suggested for 30 minutes. The actual situation is determined by the model design.

- Operational precautions & safety advice

About the machine:

Operate the space of the machine, keep the environmental temperature at 20-30° C, and keep it ventilated. If it is printed overnight, do not turn off the air conditioner.

Resin operation:

Avoid contact with sunlight when using resin. It can be operated for a short time under normal light source (less than 10 minutes).

After use, please filter and seal in the bottle to avoid exposuring in the air.

It is suggested not to mix the new material and the used material. Please shake it before use.

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It is forbidden to dump this material casual. If it needs to be scrapped, please solidify the material and hand it to the cleaning team according to the “general resources”.

Store at room temperature (15 - 35 ° C) in a dry environment.

Safety advice

If it's convenience, wear gloves, goggles, and long-sleeved clothing to handle the resin, and wash your hands with detergent after each operation.

This material is forbidden to eat and swallow. If it happens, please to take medical treatment as soon as possible.

Avoid contact with the eyes. If you touch it, rinse with plenty of water and please to take medical treatment as soon as possible.

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The material is slightly irritating to human skin. If it induces allergies, please stop using this material immediately. This material has a slight smell and is highly suggested for use in ventilated areas.

Please keep the resin in a safe place to prevent kids from touching

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Phrozen software operation

Download Phrozen Software

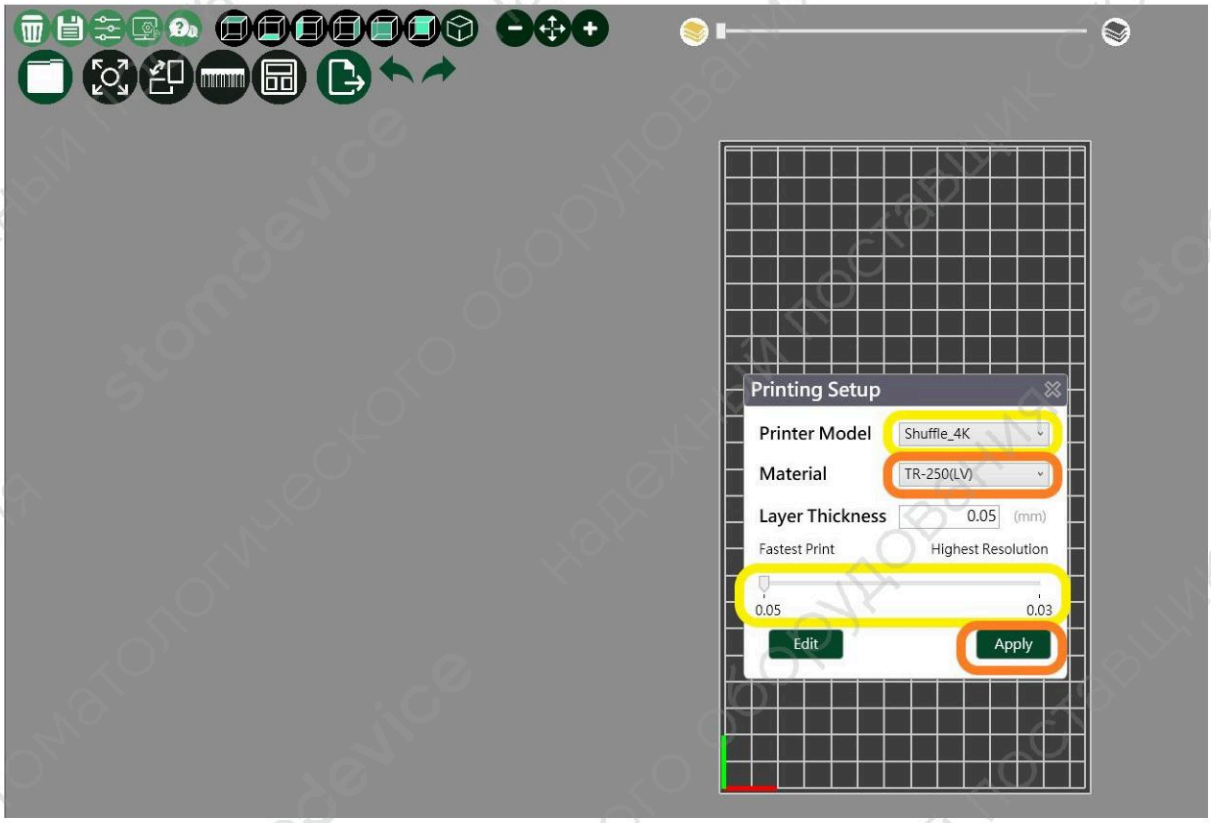
Download location

●Basic settings

Open the software

Set basic settings

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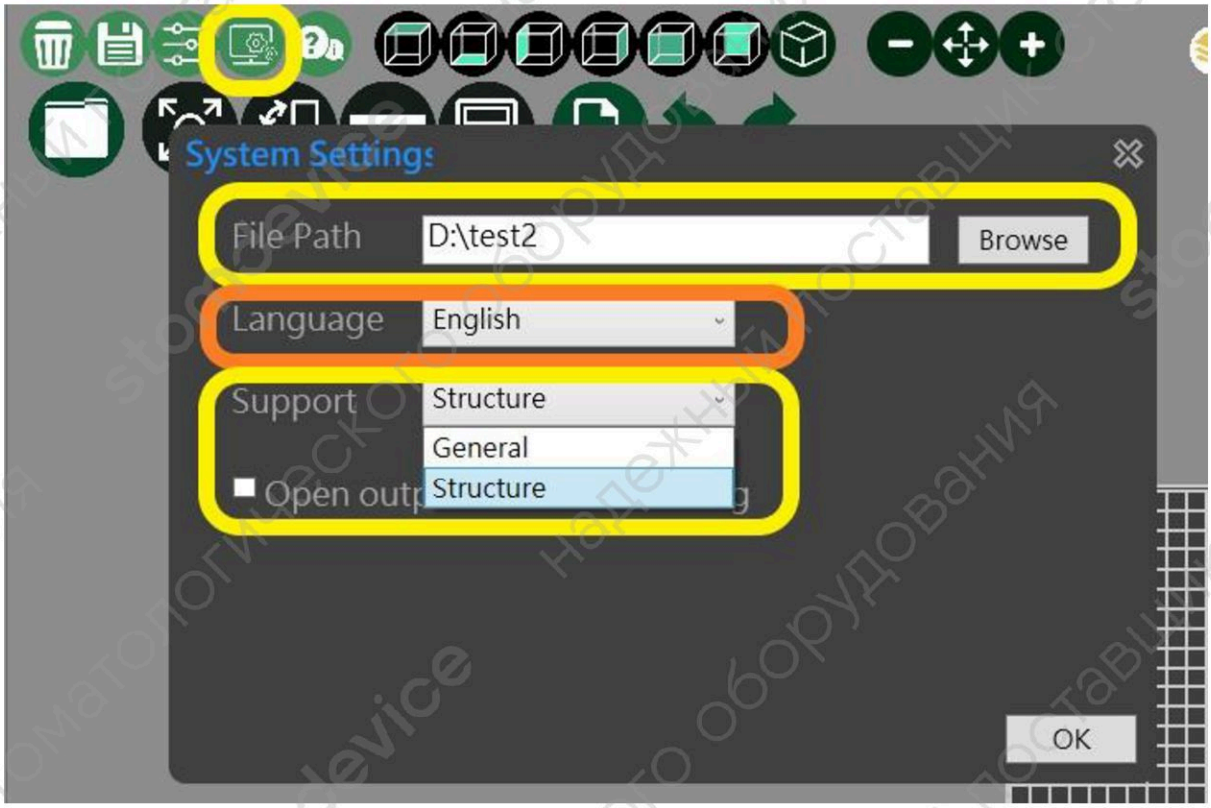


1. Select the resin to be printed

2. Select the needed print layer thickness

3. Select "Apply

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● Software basic settings

1. Press the setting pattern

2. Select the slice storage location

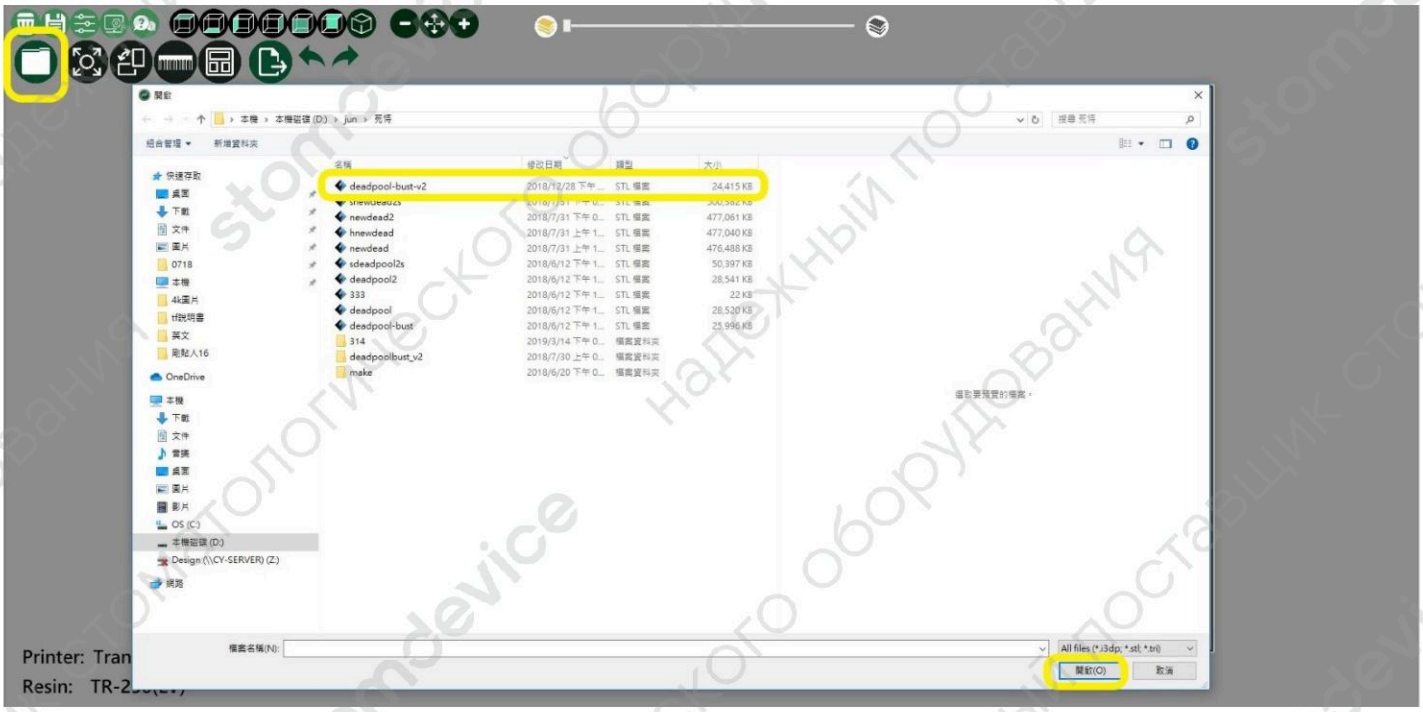
3. Select language

4. Select the type of support (can be adjusted during long support)

5. Press OK to complete the setting

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- Import file



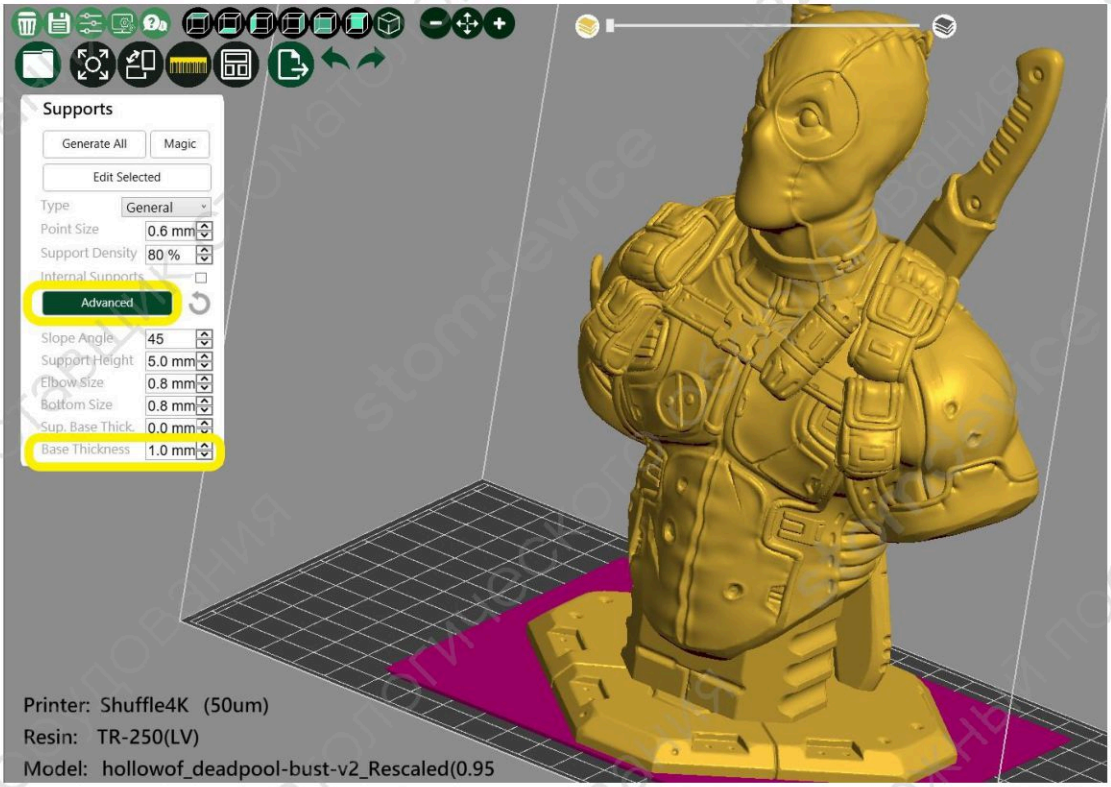
After selecting the top left icon, select the location to be imported into the STL file.

※Mobile window: The middle mouse button can rotate the screen in 3D, and the right mouse button can move the screen

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● Set support


Supports
Generate All
Magic
Edit Selected
Type
Structure
Point Size
0.8 mm
Support Density
80 %
Internal Supports
Advanced


Supports
Generate All
Magic
Edit Selected
Type
General
Point Size
0.6 mm
Support Density
80 %
Internal Supports
Advanced
Slope Angle
45
Support Height
5.0 mm
Elbow Size
0.8 mm
Bottom Size
0.8 mm
Sup. Base Thick.
0.0 mm
Base Thickness
1.0 mm
Printer: Shuffle4K (50um)
Resin: TR-250(LV)
Model: hollowof_deadpool-bust-v2_Rescaled(0.95

Select support icon

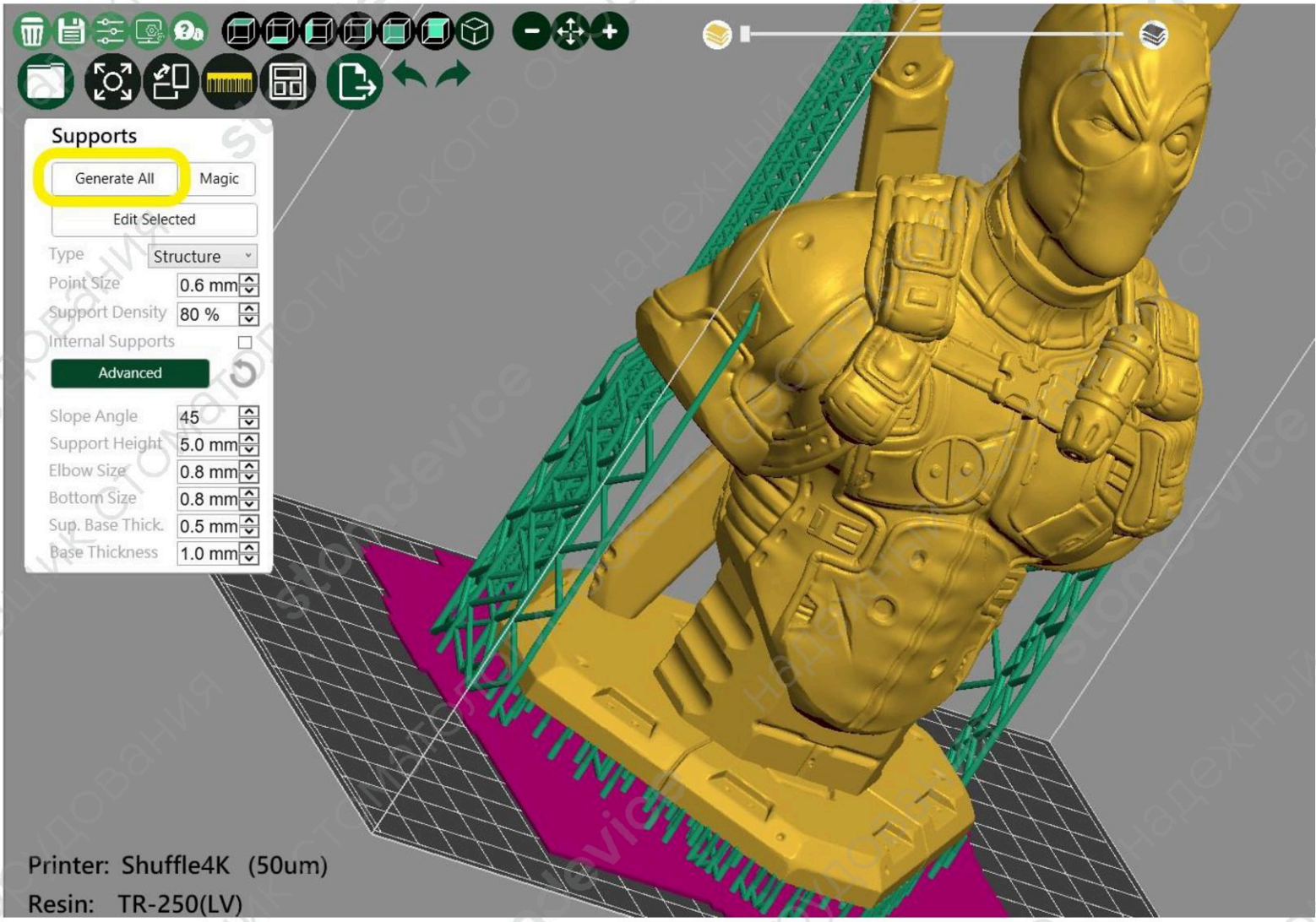
1. Select advanced features

2.Adjust the height of the base to 1mm

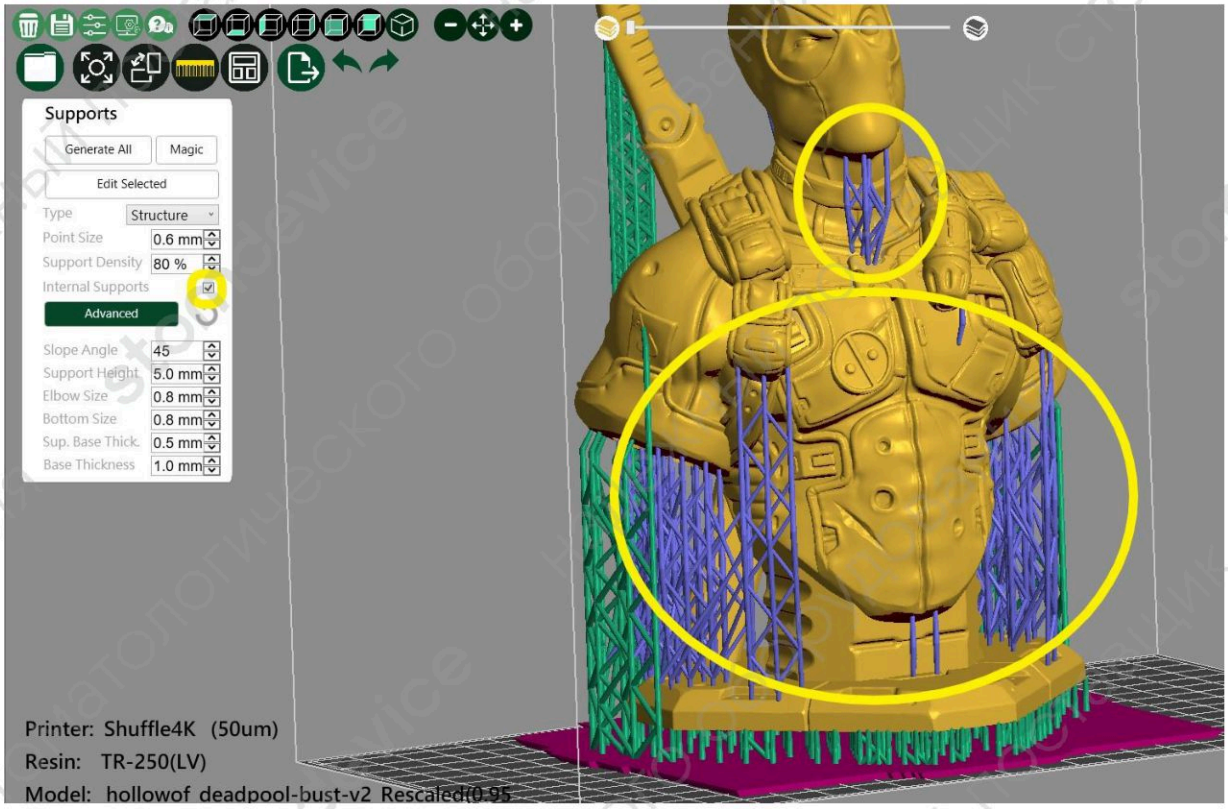


Adjust the support type to the bracket type

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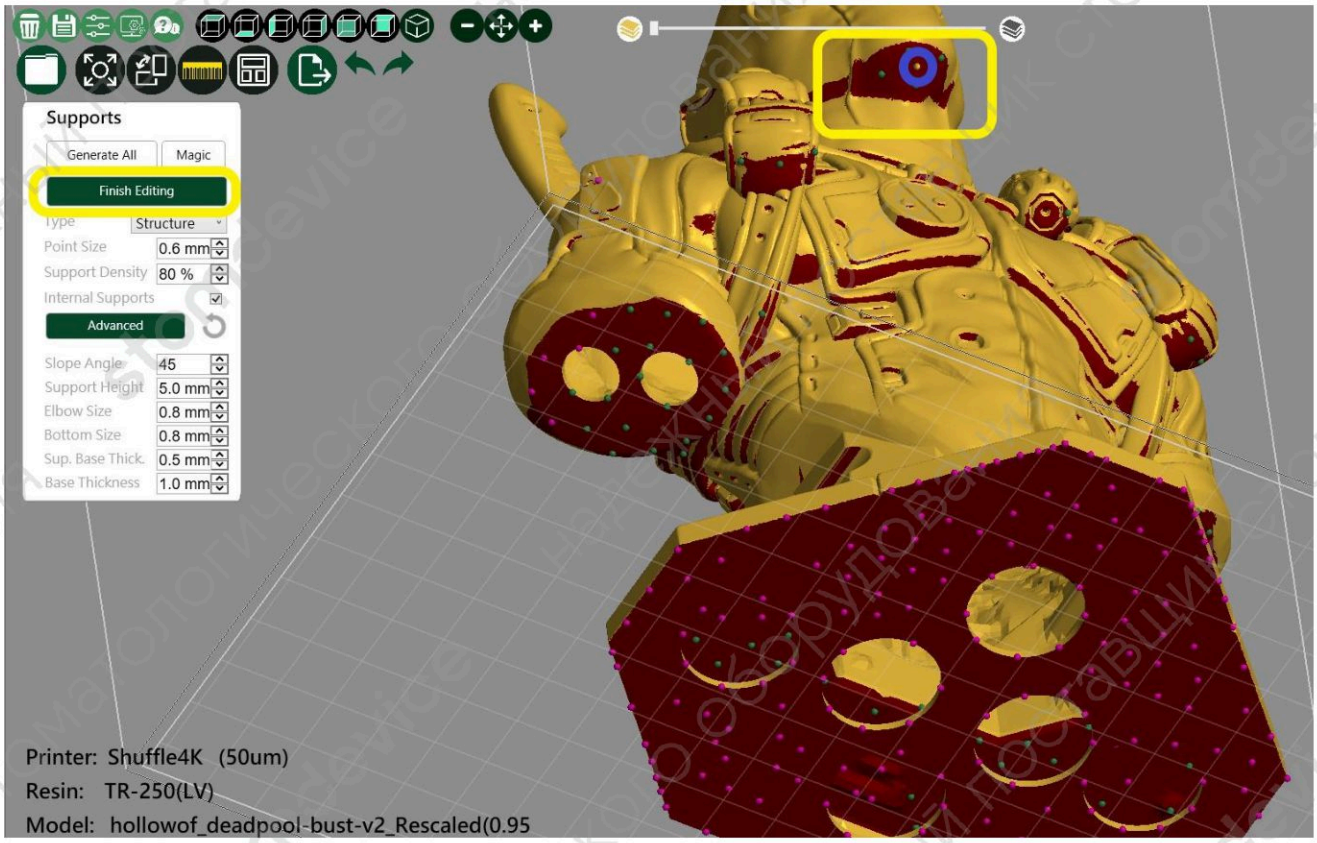


Select automatic support, software automatically adds support



Check the internal support function

Internal support function - for example, the model itself has a base, the automatic support is the support between the base and the platform; if the inner support is selected, the following place will be added.

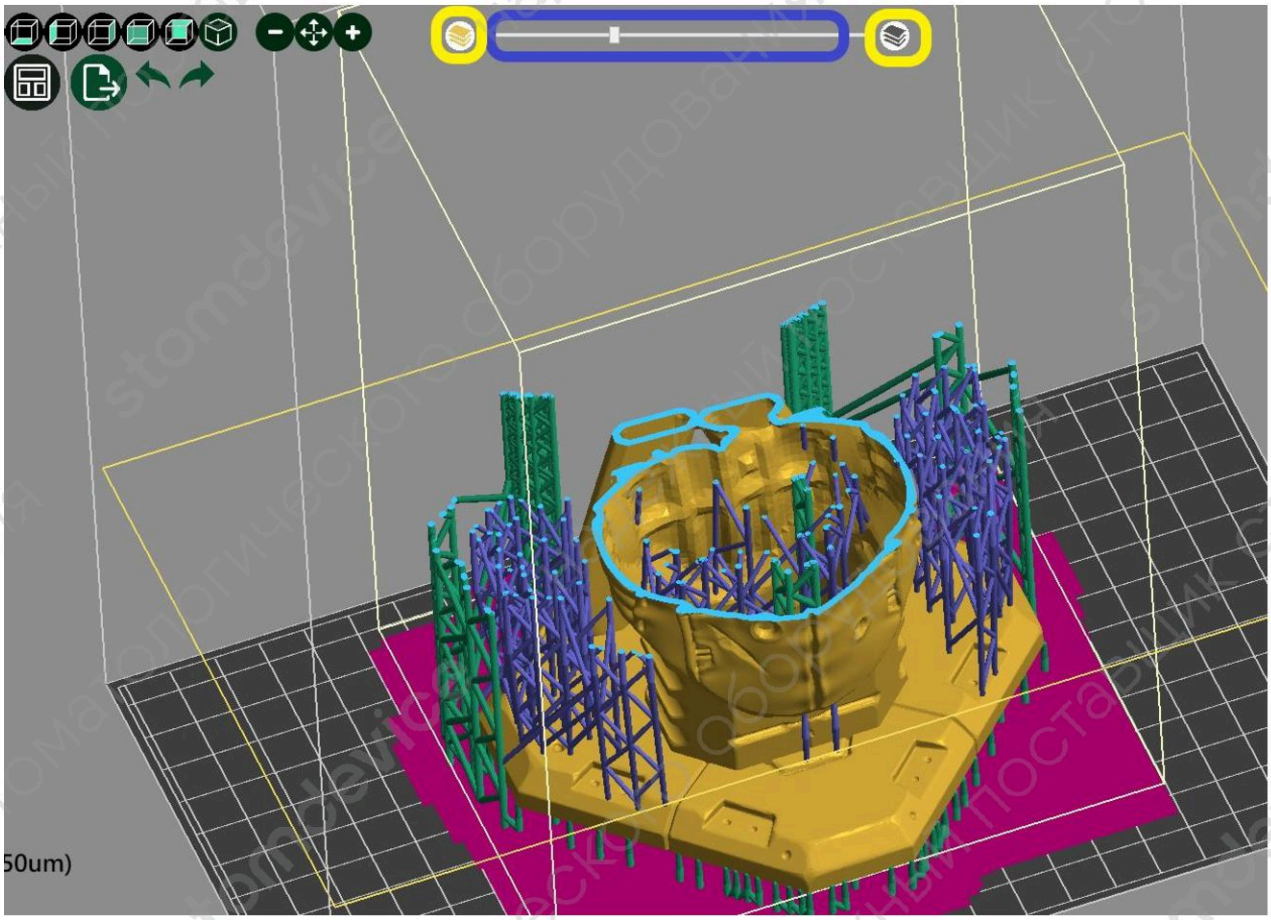


1. Select "Edit Support"

2. The support will be converted to contact point mode; at this time, can manually add the support by pressing the left mouse button at the color change of the model.

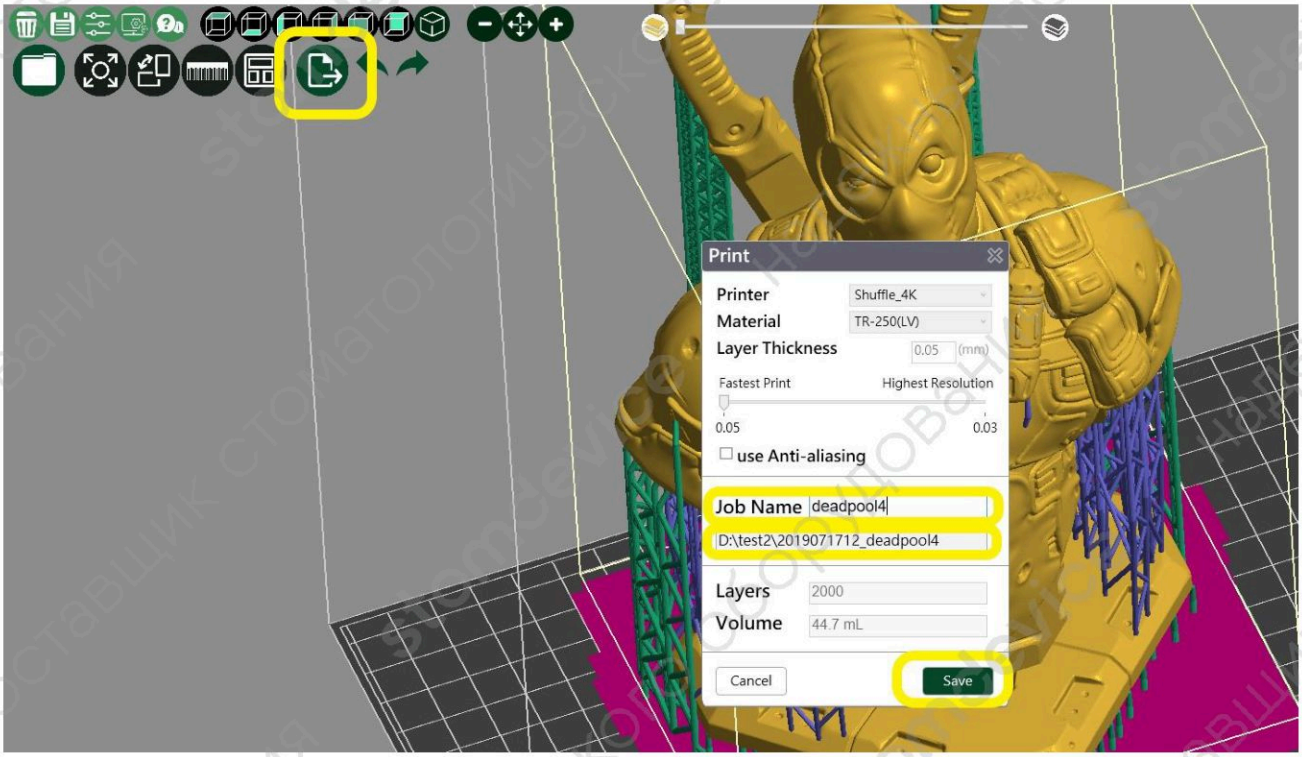
3. After clicking the left button to select the contact point to be removed,

4. After completing the editing support, please select “Edit Support” once.



After selecting the moving direction of the model slice, left-click and hold the middle square to move left and right to view the simulated slice

Simulation check support slice



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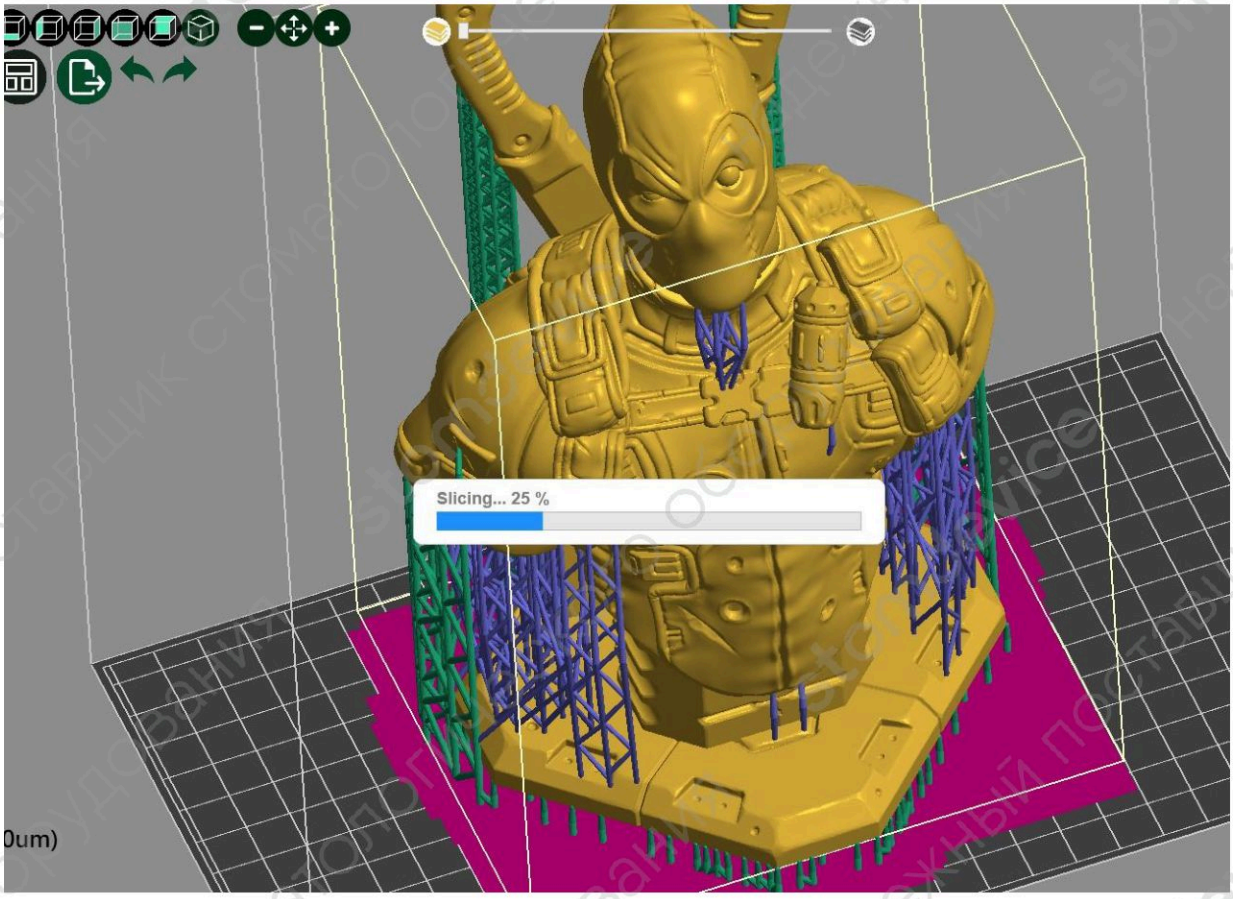
1. Select the output slice file

2. Check if the parameters are correct

3. The model name can be changed at this time. It is suggested to name it in short English.

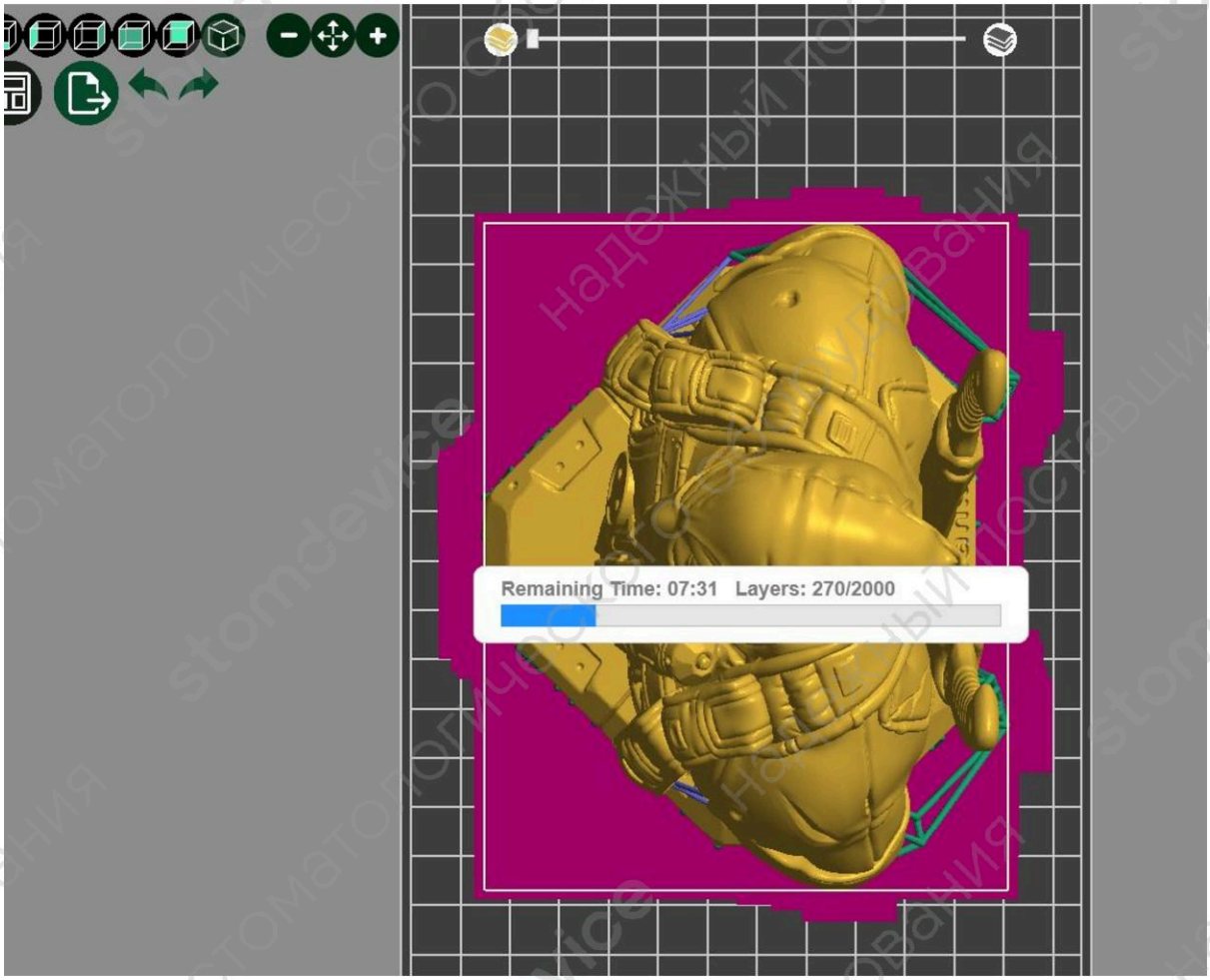
4. The storage location is preset and cannot be changed here.

5. Select output after confirmation



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After selecting the output, the software will slice, and there is a progress bar at the bottom right. If the file is too large, the progress bar will repeat the same %, please be patient.

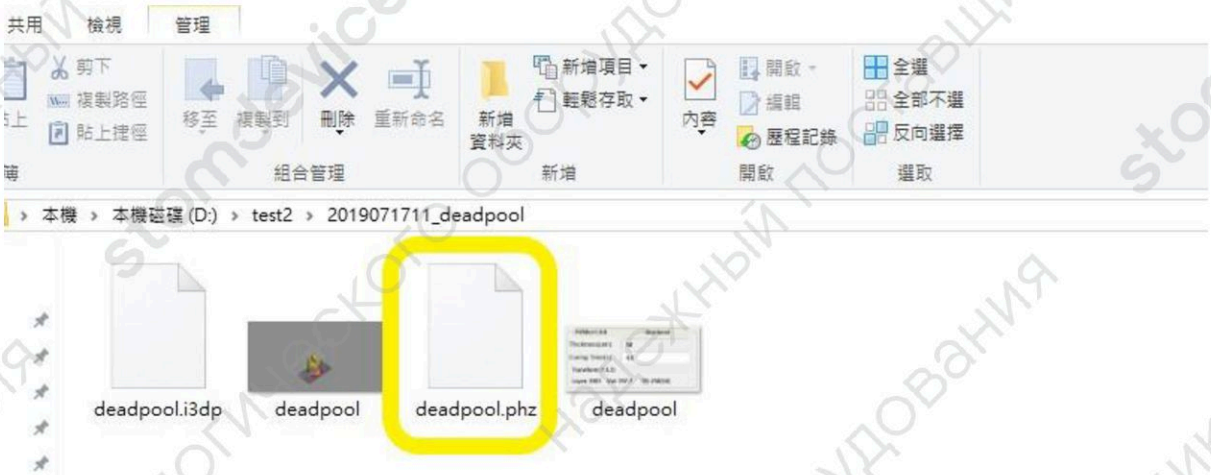


After the slicing is completed, the software stores it automatically and it will show the time required for the slice. When the number of layers is more, the time required will also multiply.

●File storage

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After opening the file storage location, save the .php file to the USB.



- Third-party support software use

After the third-party software is supported, the STL file is exported and then sliced with special software

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