

Hyper-S 3D Printer User Manual

Thank you for choosing Mixware.
Your satisfaction is our driving force.
Please read the user manual carefully before using it.

■ Directory ■

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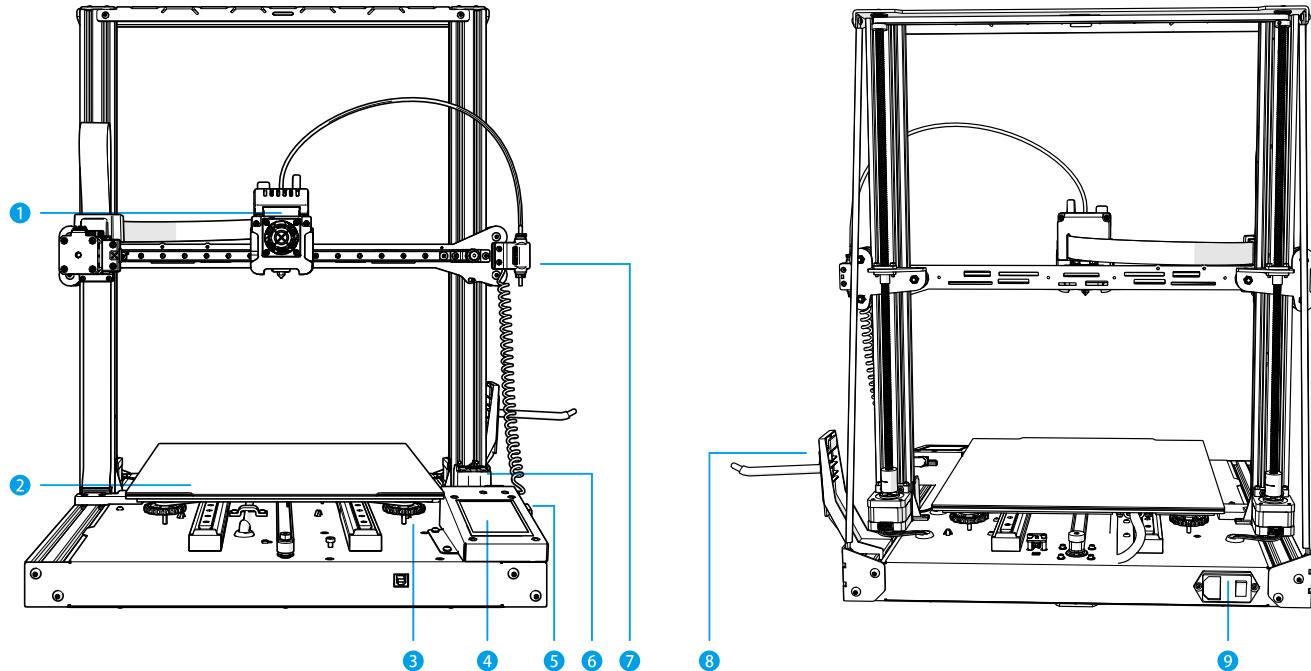
Disclaimer

Notes

- Please follow the instructions to avoid accidental personal injury and property loss.
- Do not modify the equipment by yourself.
- Please maintain the product regularly and clean with a dry cloth to remove the ash layer and foreign bodies on the guide rail.
- When operating the device, do not wear anything that may involve the device, such as scarves, masks, gloves, and jewelry.
- Do not touch the nozzle and hot bed when the printer is working to prevent burns.
- Keep the printer away from flammable gases, liquids and dust. (The high temperature generated by the operation of the equipment may be associated with dust, liquid, Flammable gas reaction initiates fire.)
- Do not place the printer in an environment with high vibration or other instability.
Machine shaking may affect the quality of the printer.
- Children and untrained personnel should not operate the equipment alone.
- Please operate the device in a ventilated environment, some consumables may produce odor during the printing process.
- To avoid damage to the device, do not move the nozzle and printing platform manually quickly under the startup state.
- Do not use the device for illegal activities.
- Do not use this device to prepare food storage products.
- Do not put the printed model in your mouth.
- Please keep the distance between the nozzle and the platform at least 50mm during the wire feeding operation. (Too close, and you might block the sprinkler head.)

First Start

- Introduction



① Nozzle

② Hot Bed

③ Level Rotary Knob

④ LED Screen

⑤ U-Disk Interface

⑥ Z-Axis Negative Switch

⑦ Material Testing Device

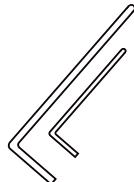
⑧ Filament Rack

⑨ Power Switch

- Accessories List



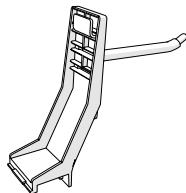
1. Screw



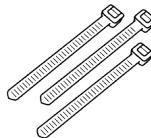
2. Allen Key



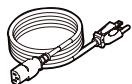
3. Material Testing Device



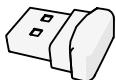
4. Material Rest



5. Ribbon



6. Power Line



7. U-Disk



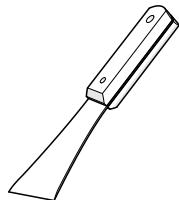
8. USB



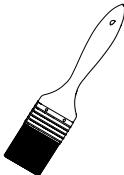
9. Tweezers



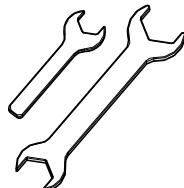
10. Guide Rail Lubricant



11. Scraper Knife



12. Hairbrush



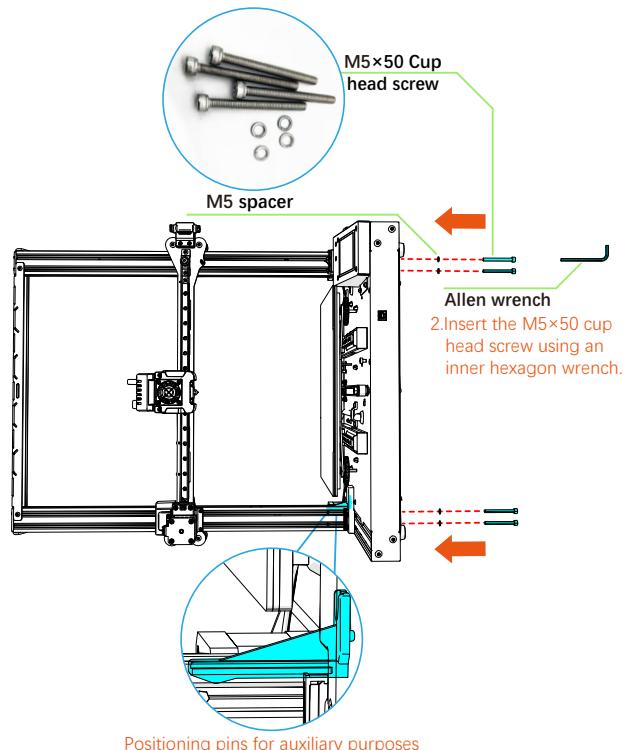
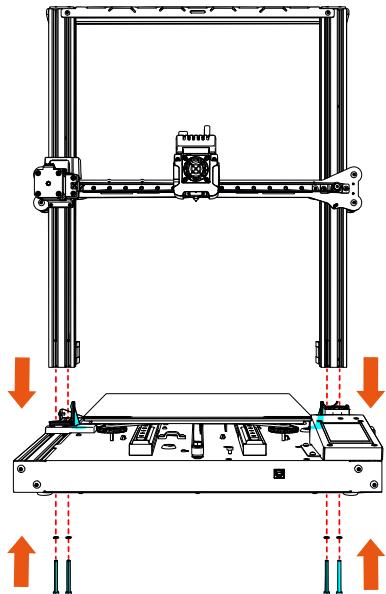
13. Open Spanner



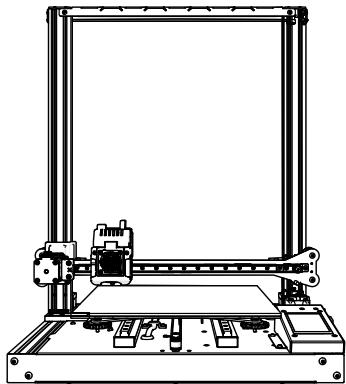
14. Cutting Nippers

● Hardware Assembly

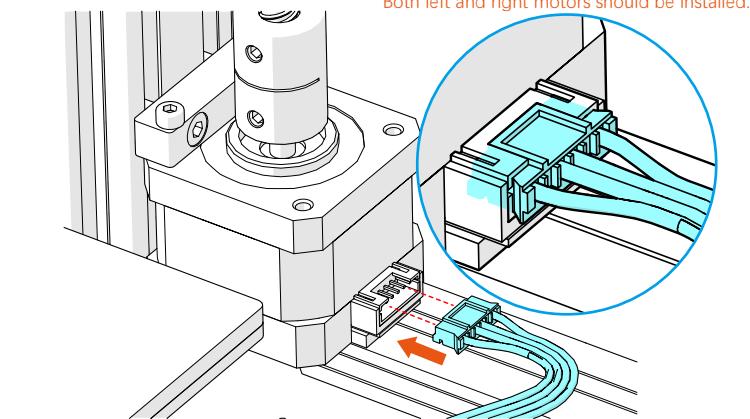
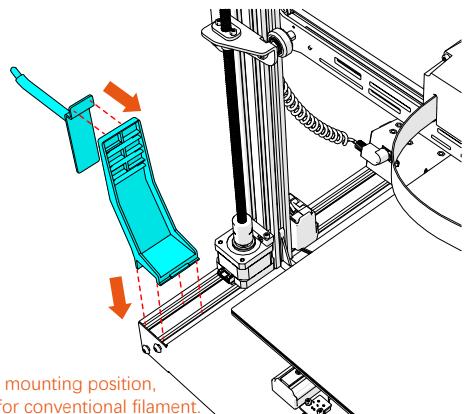
1.The gantry frame is placed on the platform, and the clamping buckle is inserted;



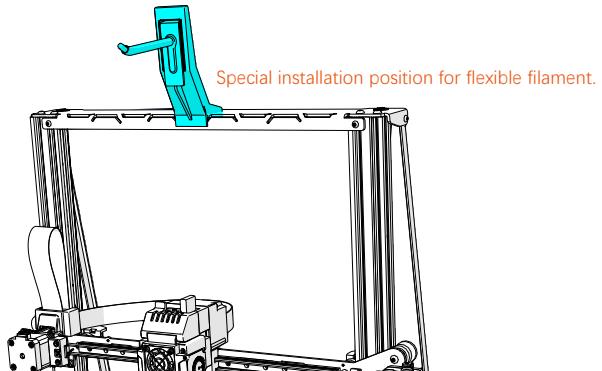
- 1 Install gantry frame and base platform.



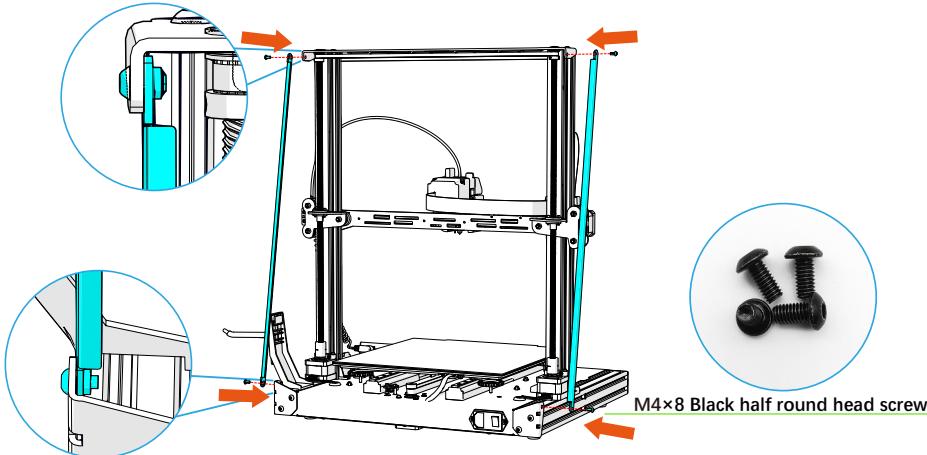
② Straighten the base platform.



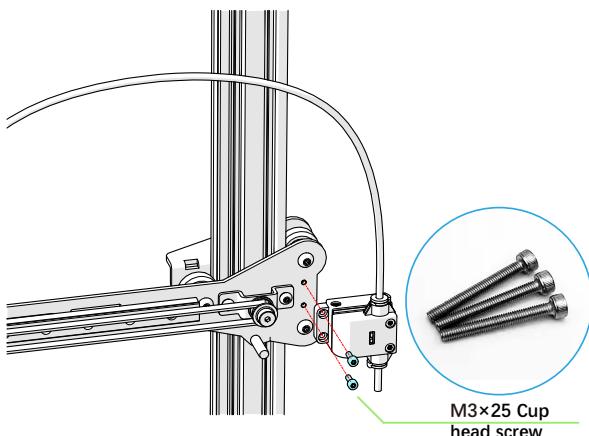
③ Double Z-axis motor line installation.



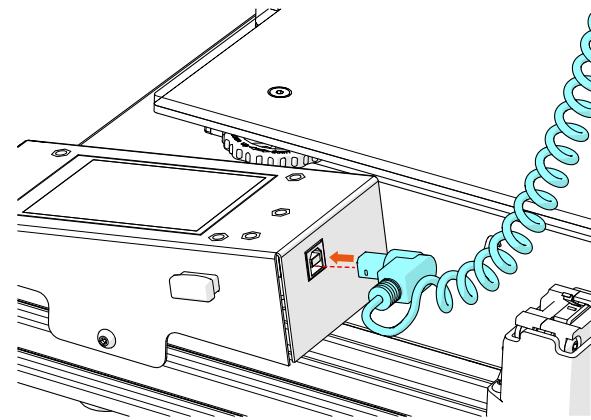
④ Rack installation.



5 Rod installation.

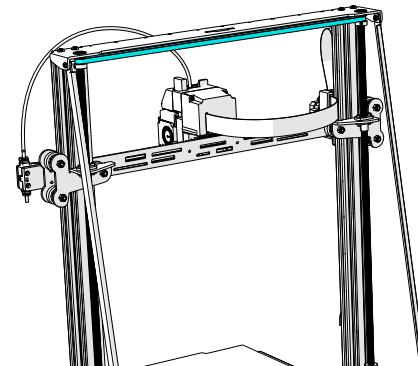
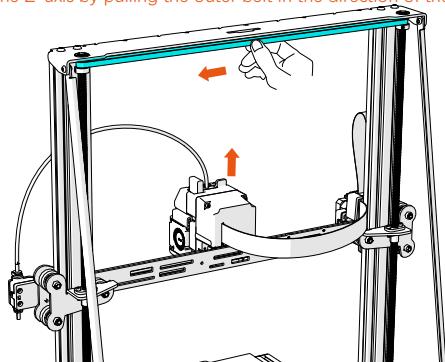


6 Material Testing Device installation.

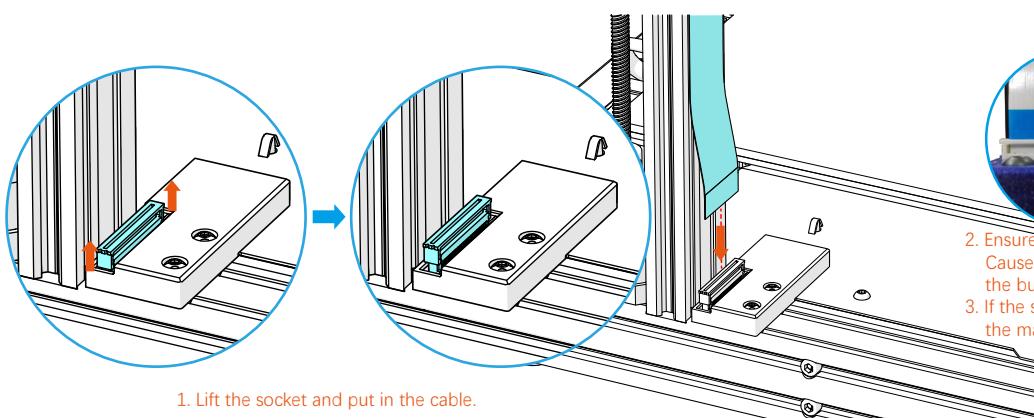


7 Material testing port installation.

Lift the Z-axis by pulling the outer belt in the direction of the arrow.



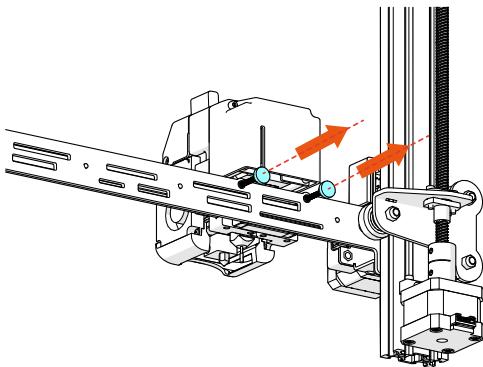
- ⑧ Pull the belt to lift the Z-axis beam to the middle position for the next installation.



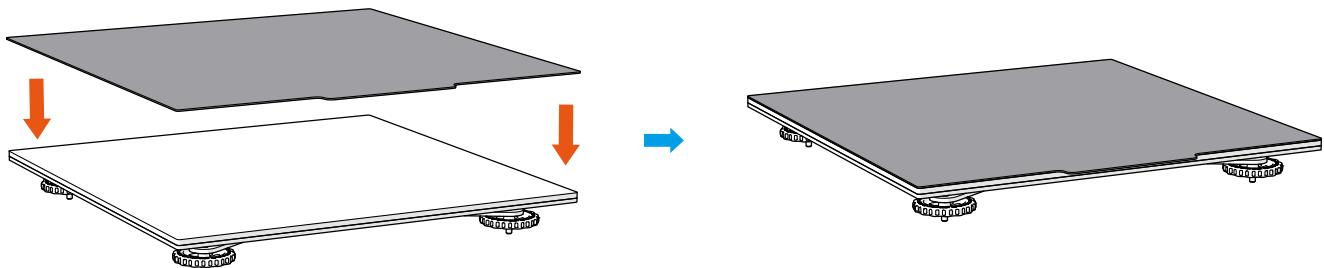
1. Lift the socket and put in the cable.

2. Ensure that the cable is correctly inserted into the socket.
Causes the row to be inserted into bottom of socket, and the button of the socket pressed;
3. If the socket is not inserted to the bottom or inserted askew,
the machine will not have method to identify the nozzle
temperature, can not be automatically adjusted;

⑨ Ribbon cable installation.



⑩ Remove the nozzle fixing hand screw.



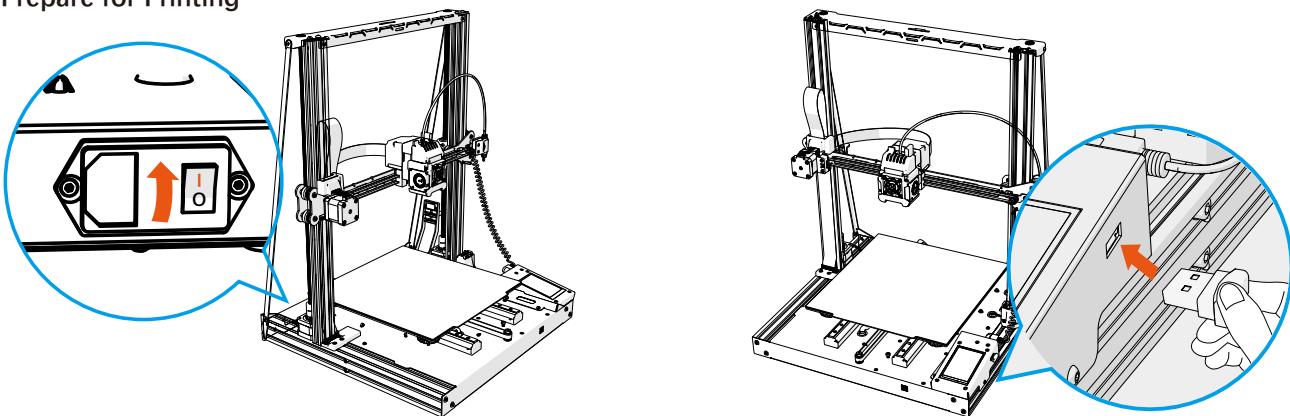
⑪ Place magnetic suction platform.

- U-Disk Data

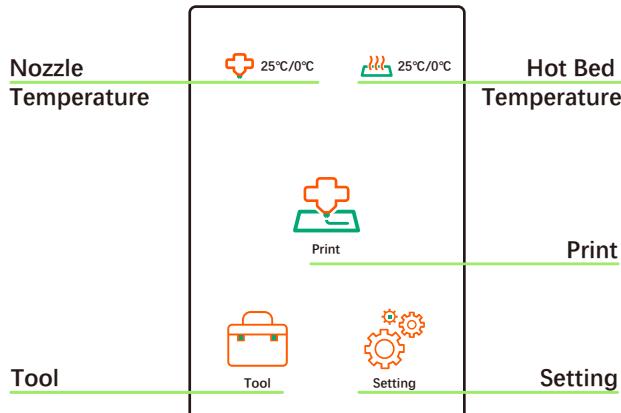
* It is recommended to back up the data in the USB flash drive to the computer to prevent accidental loss of data.



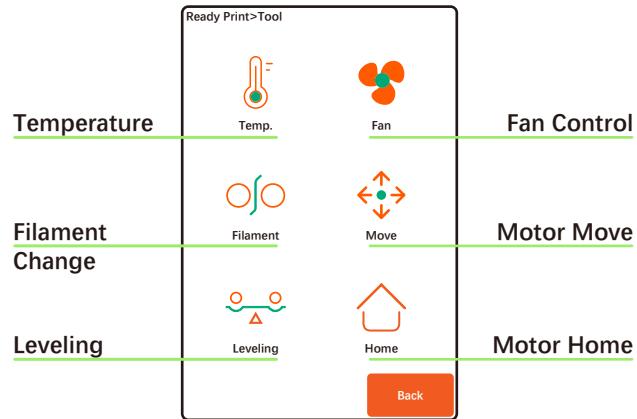
- Prepare for Printing



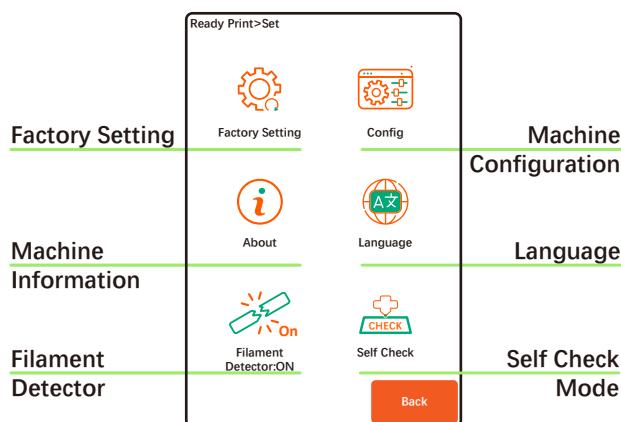
- LED Interface Description



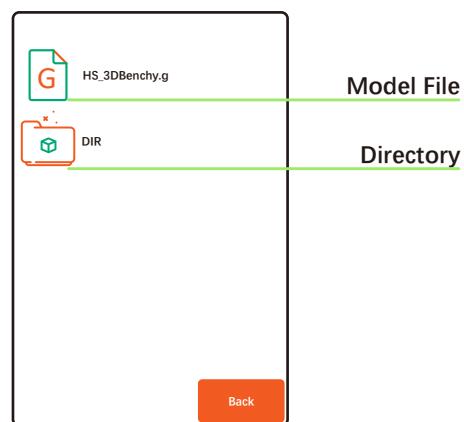
① Home page of touch screen



② Tool Interface Description



③ Set Interface Description

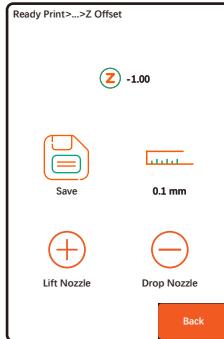


④ Model File Interface Description

* All of the following operations must be done when the printing platform is properly installed.

③ Leveling

- Auto Leveling:

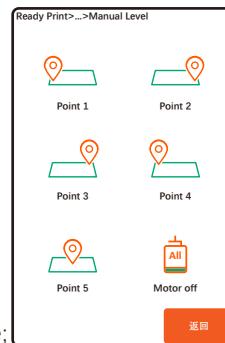


1. On the home page of the touch screen, tap "**Tool**" to enter the tool interface.
2. Tap "**Leveling**" on the tool interface to enter the leveling interface;
3. Click "**Leveling**" on the leveling interface, select "**Auto Leveling**" and confirm in the confirmation interface, and then wait for the leveling to complete for about 3 minutes;
4. After successful display leveling, it is recommended to **adjust Z-axis Offset** (the distance between the nozzle and the platform is based on the thickness of A4 paper):
 - (1) Click "**0.1mm**" to switch accuracy, providing "**0.05mm**" and "**0.1mm**" precision to switch;
 - (2) Click "**Lift Nozzle**" and "**Drop Nozzle**" to adjust the distance between the nozzle and the platform;
 - (3) Click "**Save**" to save the current adjustment parameters;
5. If the printing effect is not good after automatic leveling, you can try "**Auto Leveling**" several times or select "**Manual leveling**" to adjust the platform.

* When the automatic leveling device is damaged, automatic leveling will not be displayed on the leveling interface.

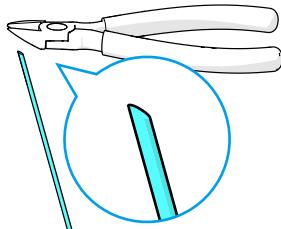
At this time, manual leveling can only be selected.

- Manual Level:



1. On the home page of the touch screen, click "**Tool**" to enter the tool interface;
2. Tap "**Leveling**" on the tool interface to enter the leveling interface;
3. Click "**Manual Leveling**" on the leveling interface to enter the manual leveling interface;
4. Select each preset point in turn on the manual leveling interface to control the print head to move to the preset position of the point. Then adjust the platform height of the position through the "**Leveling knob**" under the preset position, and control the distance between the nozzle and the height within an A4 paper's thickness.

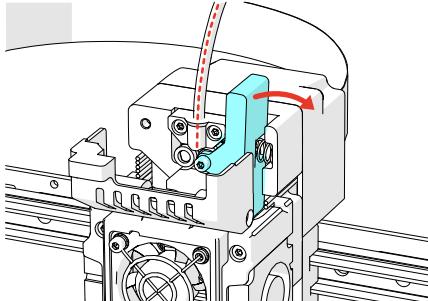
4 Load Filament



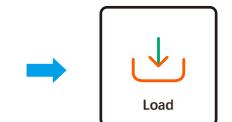
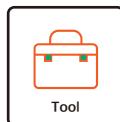
4-1. Sharp the end of the filament by the cutting nippers.



4-2. Place the filament on the loading rack with right orientation of the reel, then insert the filament to the printer through the short guide tube under the filament detection module.



4-3. Pull the consumables out about 100mm from the long guide pipe, hold the extruder handle and put the consumables into the extruder.



4-4. Start the printer, enter the "Tool" interface on the home page of the printer touch screen, click "Load" to enter the refueling interface and select "Feed" function;

4-5. Select the melting temperature required by the current filament. The filament to be delivered are PLA materials.

For other materials, please select reasonable temperatures according to the material instructions.

4-6. After the nozzle is heated, click "Ok" and wait for the printer to complete the loading of supplies;

4-7. After loading consumables, use tweezers to clean up the remaining consumables on the nozzle.

* The printer head and the hot bed will be heated during the feeding and printing process. Do not touch it with your hands to avoid burns.

• Start Printing

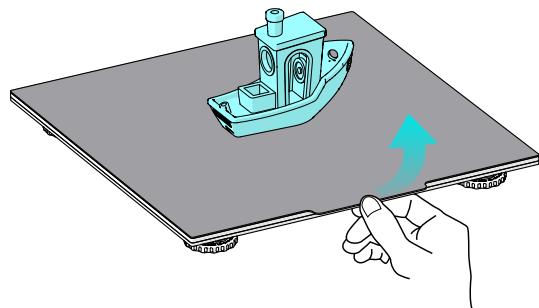


Click "Print" on the home page of the printer touch screen to enter the screen of selecting print files; Select the model file to be printed and start your new 3D printing journey immediately.

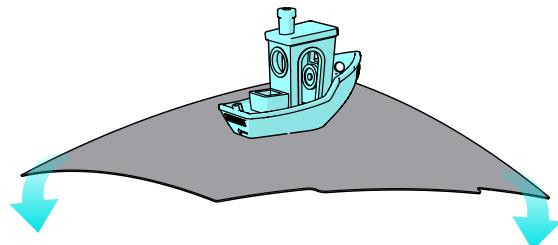
* Tips: Please confirm that the consumables have been loaded before printing (no need to load the consumables again);

It is recommended to observe the first layer to confirm the normal printing.

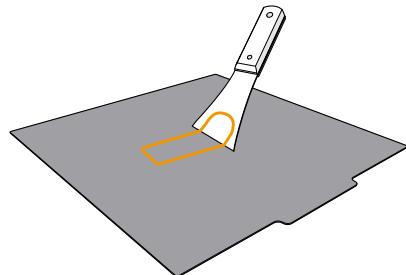
- After Printing



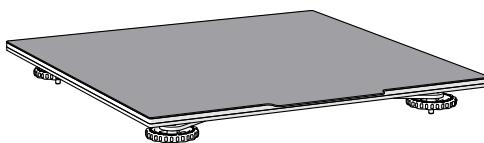
- ① After printing, lift the print bed and remove the model together.



- ② Bend the magnetic suction platform appropriately, make the model peel off the platform, and remove the model.



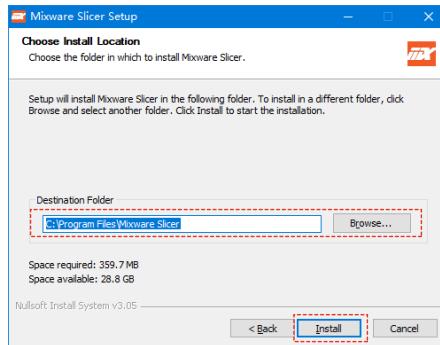
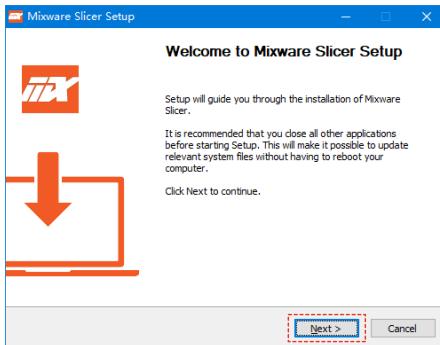
- ③ Use a shovel knife to remove the remaining consumables on the stickers.



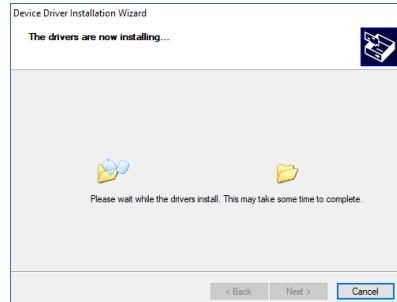
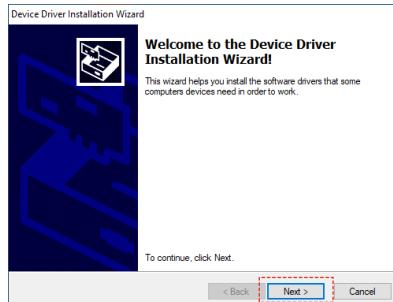
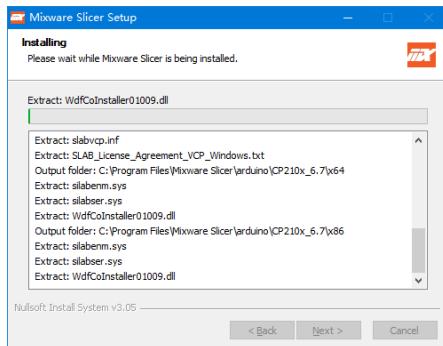
- ④ Place the print bed back on the 3D printer platform.

Daily Usage

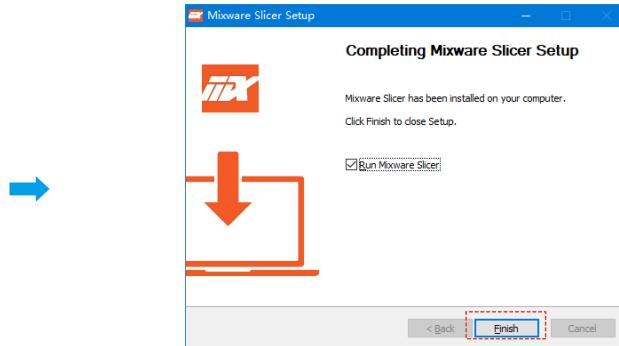
Software: Installation



- Double-click to open the "Mixware Slicer win64 Setup.exe" file, follow the prompts to set the installation path, and click "Install" to continue.



- Follow the prompts to install the device driver and click "Next" to continue.

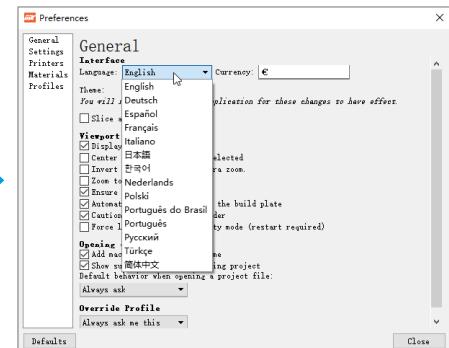
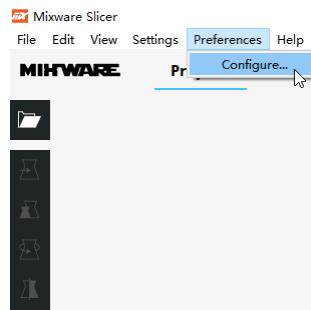
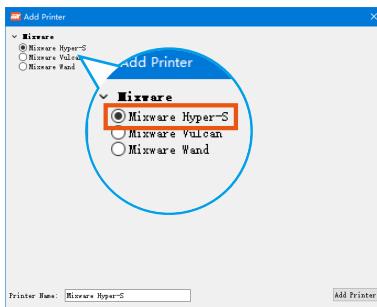


③ Click "Finish", and Mixware Slicer is installed successfully.

* When the installation fails or the interface does not display properly after installation, please check the system configuration of the computer.

System requirements: Win7 +.

Graphics card requirements: support OpenGL2.0 or above.

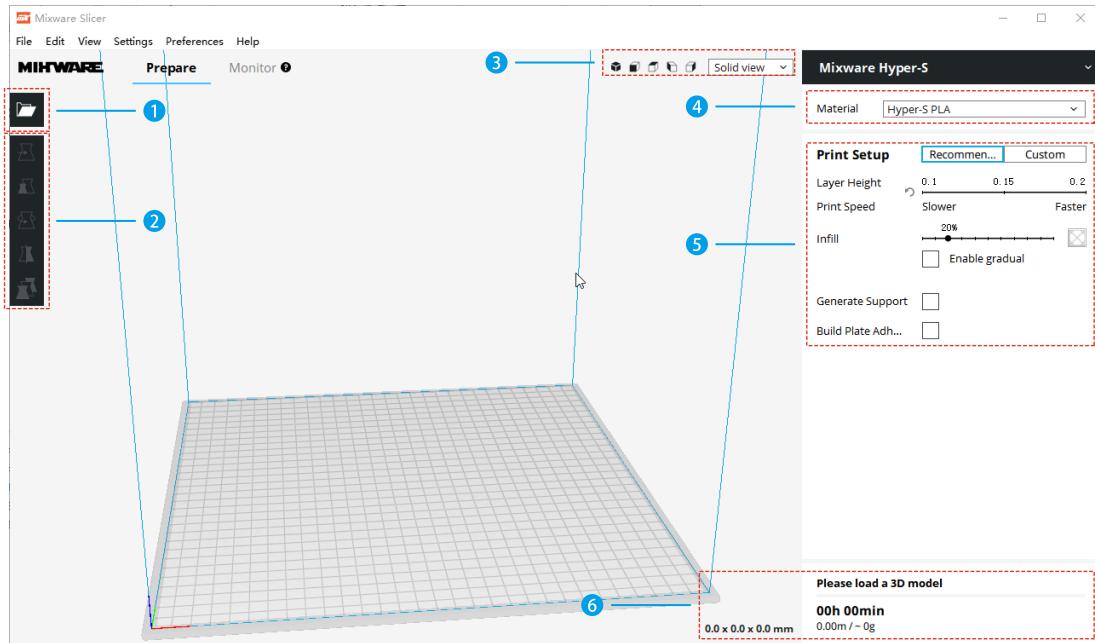


* Be careful not to choose the wrong model.

- ### ④ When Mixware Slicer is first opened, the user needs to select the model of 3D printer. Tick "Mixware Hyper-S" and click "Add Printer" to start using.

- ### ⑤ The default language is English, press "Preferences->Configure..." On the interface of "Preferences", choose the appropriate language. Then re-start the software to change the language you need.

- Software: Interface Description



① Load the model

② Adjusting tool

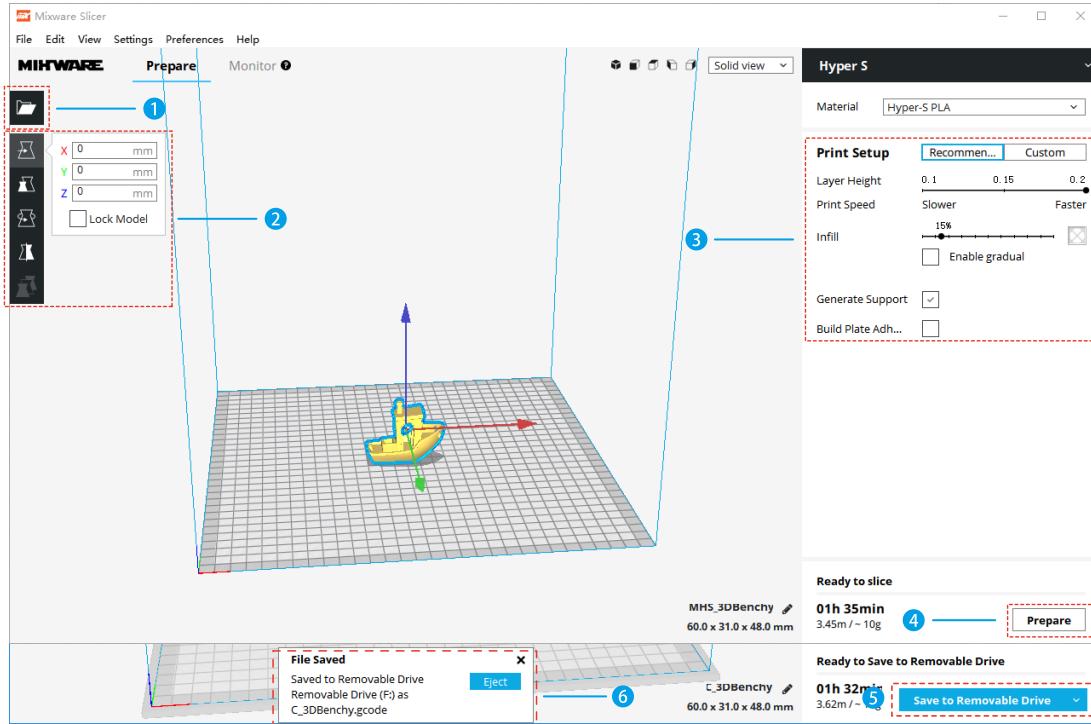
③ View display

④ Print material type settings

⑤ Print related settings

⑥ Slice information

● Software: Model Slice



- ① Load your favorite model into Mixware Slicer.
- ② Select the loaded model, and use the adjustment tool to position, scale, rotate, and mirror the model.
- ③ Adjust the print parameters appropriately.
- ④ Click "Prepare" to generate the slice file. When the slice is finished, the "Prepare" button will be changed to "Save to File"/" Save to Removable Drive".
- ⑤ Click "Save to Removable Drive". After successfully saving to U-Disk, the software will prompt the completion of saving and provide U disk exit button.
- ⑥ Click "Eject" to pull out the U-Disk and prepare to print.

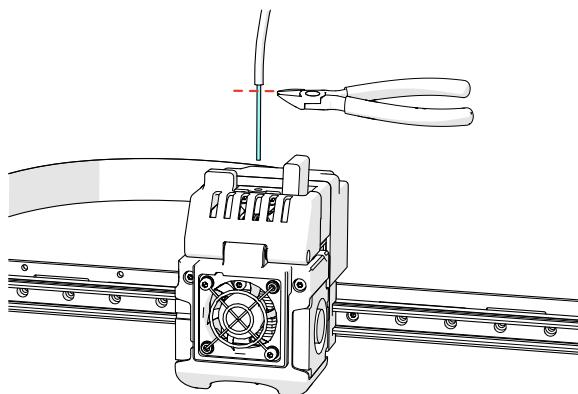
• Replace Filament

- * When exchanging the filament, the printing head is heating.
Do not touch the printing head to avoid getting burned.

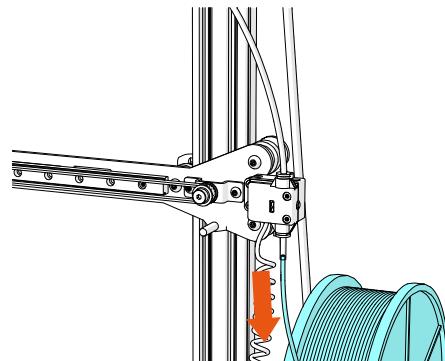
① Unload Filament:



- 1-1. Start the printer. On the home page of the printer touch screen, the **Tool** page is displayed;
- 1-2. Click “**Filament**” to enter the replace filament interface and select the “**Unload**” function;
- 1-3. Select the melting temperature required for the current filament;
- 1-4. Wait for the printer to complete unloading filaments.



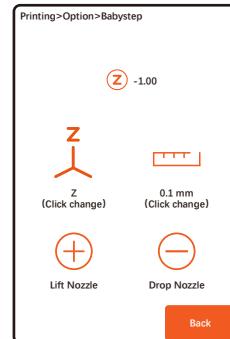
- 1-5. Cut the consumables under the material pipe with cutting pliers.



- 1-6. Pull out the remaining consumables under the material detection module.

② Load Filament: See Prepare for Printing ④ Load Filament(Page 13).

• Baby Step

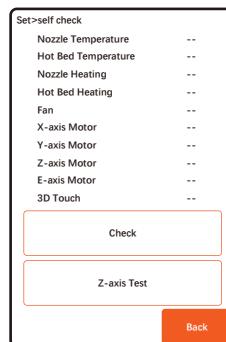


- ① In the initial stage of printing, the model printing effect is not up to the expectation:

1. During the printing process, click "Babystep" on the operation interface to enter the Baby Step interface;
2. Click "Z" switch the axis, provide "X", "Y", "Z" axis control options;
3. Click "0.1 mm" switch precision, provide "0.05 m", "0.1 mm" precision;
4. Click "Lift Nozzle", "Drop Nozzle" to fine-tune the nozzle.

* The Babystep is to fine tune the nozzle in the initial stage, so it only takes effect when the height is less than 2mm.

• Self Check mode



- ① On the home page of the printer touch screen, the "Set" screen is displayed;
 2. Tap "Self check" on the setting interface to enter the self check interface;
 3. Click "Check" to start the self check function.
 Please wait patiently for the end of the test.
 About 60 seconds;
 4. The detection result will be displayed on the right side of the entry,
 and the function will be displayed normally.
 Abnormal will display as NG;
 * If abnormal items appear, check and repair them.

Z-axis Test



- ② 1. Click "Z-axis Test" on the self check interface to enter the Z-axis test interface;
 2. On the Z-axis test screen, select "Slow Speed Z-axis Test" and "High speed Z-axis Test".

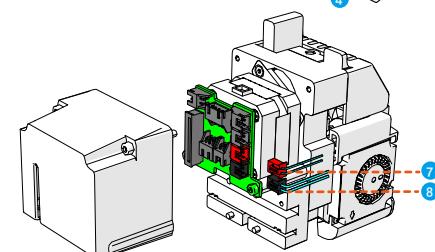
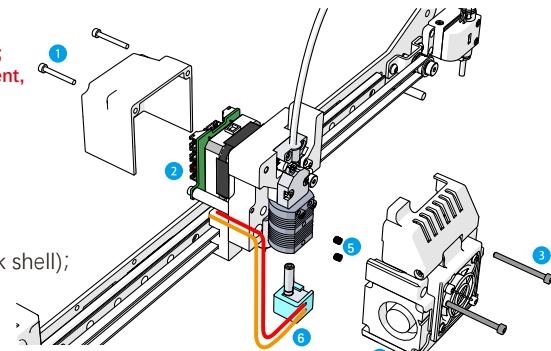
• High Temperature Mode

* The printer is in normal mode by default, suitable for common PLA, ABS and other materials; If you need to print nylon, carbon fiber and other materials with high temperature requirement, you can choose high temperature mode.

① Replace the high temperature nozzle assembly:

- 1-1. Perform the function of unloading filament, details refer to **Replace Filament ① Unload Filament**(Page 18);
- 1-2. Unscrew the back cover setting **screw①**, remove the back cover;
- 1-3. Pull out the terminal of the **nozzle assembly②**(Red shell and black shell);
- 1-4. Unscrew the **fan components③**;
- 1-5. Remove **fan components④**;
- 1-6. Unscrew the fixing screw of the **nozzle assembly⑤**;
- 1-7. Replace the **nozzle assembly ⑥** with a high-temperature nozzle assembly;
- 1-8. Install the sprinkler head in reverse order;
- 1-9. Attention should be paid to the correct insertion of **sockets ⑦ and ⑧**. Improper insertion will cause the nozzle to fail to measure the temperature and heating.

* The operation of changing back to the normal nozzle assembly is the same as above.

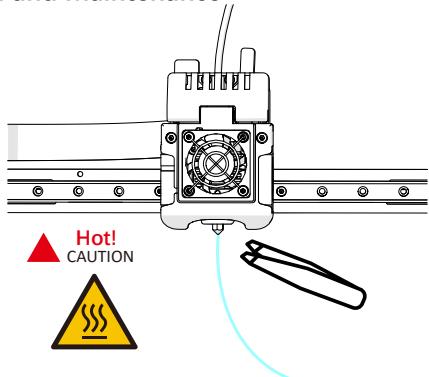


② Switching to high temperature mode:

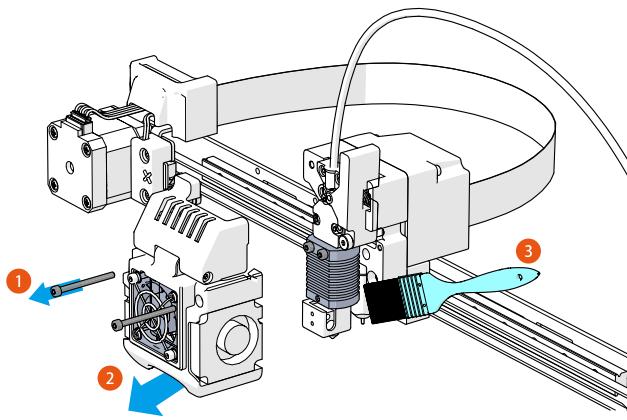
- 2-1. On the home page of the printer touch screen, the Settings screen is displayed;
- 2-2. Click "Config" in the setting interface;
- 2-3. Click "Advanced Settings" in the machine parameter interface;
- 2-4. On the Advanced Settings screen, click "**Heating Mode Settings**";
- 2-5. On the heating mode setting screen, select High Temperature and confirm the switchover.

* Before switching modes, make sure that the nozzle assembly has been replaced with an appropriate nozzle assembly; otherwise, the nozzle assembly may be damaged.

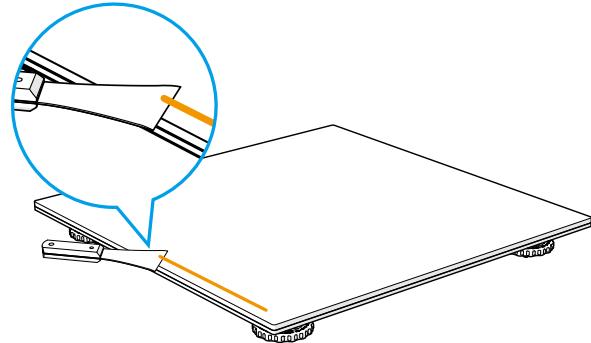
• Clean and Maintenance



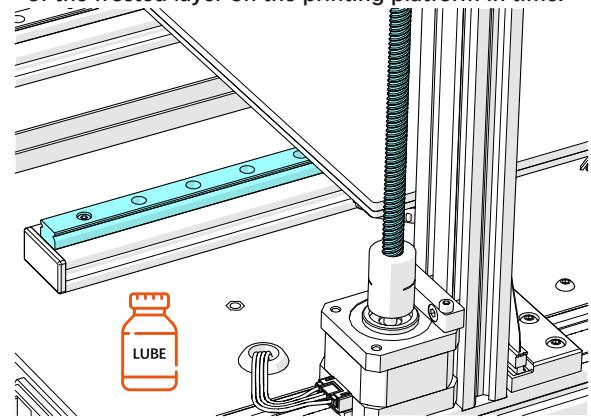
- 1 After the filament exits, please wait patiently for a few minutes to let the temperature of the print head lower, and ensure your safety to avoid burns.



- 4 Nozzle cleaning: first make sure to turn off the power, and then unscrew the M3 fan parts Remove the fan with screws (1) and (2) clean the dust on the sprinkler head with a brush (3).

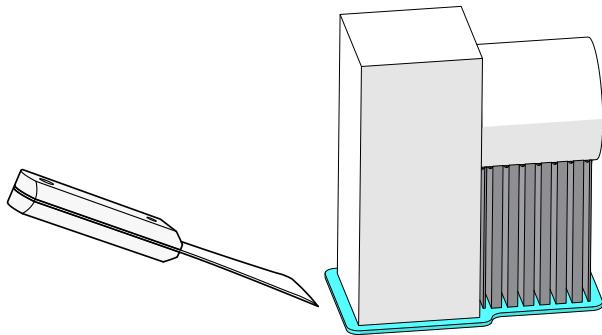


- 2 Before each printing, please remove the residue on the platform to ensure that the platform is flat.
- 3 After each printing is finished, please clean the residue of the frosted layer on the printing platform in time.

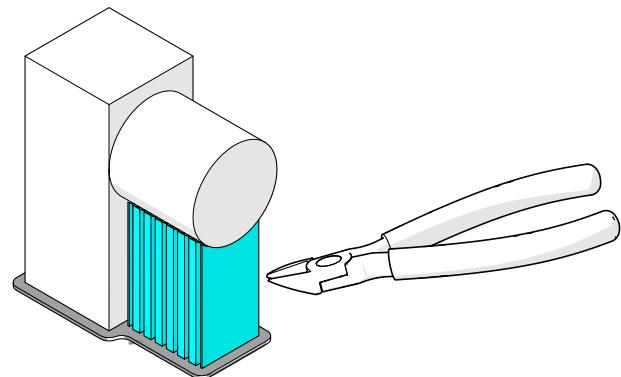


- 5 Screw guide rail maintenance: irregularly grease the screw and guide rail, It makes the printer work better.

- Model Aftercure



- 1 Use the scoop to remove the finished model from the bottom.



- 2 Remove the supports of the model by the cutting nippers.

- Other

- 1 Material detection: monitor the consumables in the printing process to effectively prevent air strike.

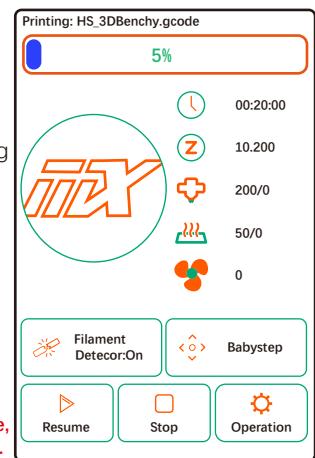


1. On the home page of the printer touch screen, the **Settings screen** is displayed.
2. On the Settings screen, you can enable or disable the material Detection function.
3. The function of "**Filament detection**" can also be started or stopped at any time on the printing interface during the printing process;
4. When the material detection detects abnormal consumables during the printing process, it will alarm and actively suspend printing and unloading consumables. At this point, it is necessary to replace the consumables or clean the nozzle.

- 2 Power to continue playing:

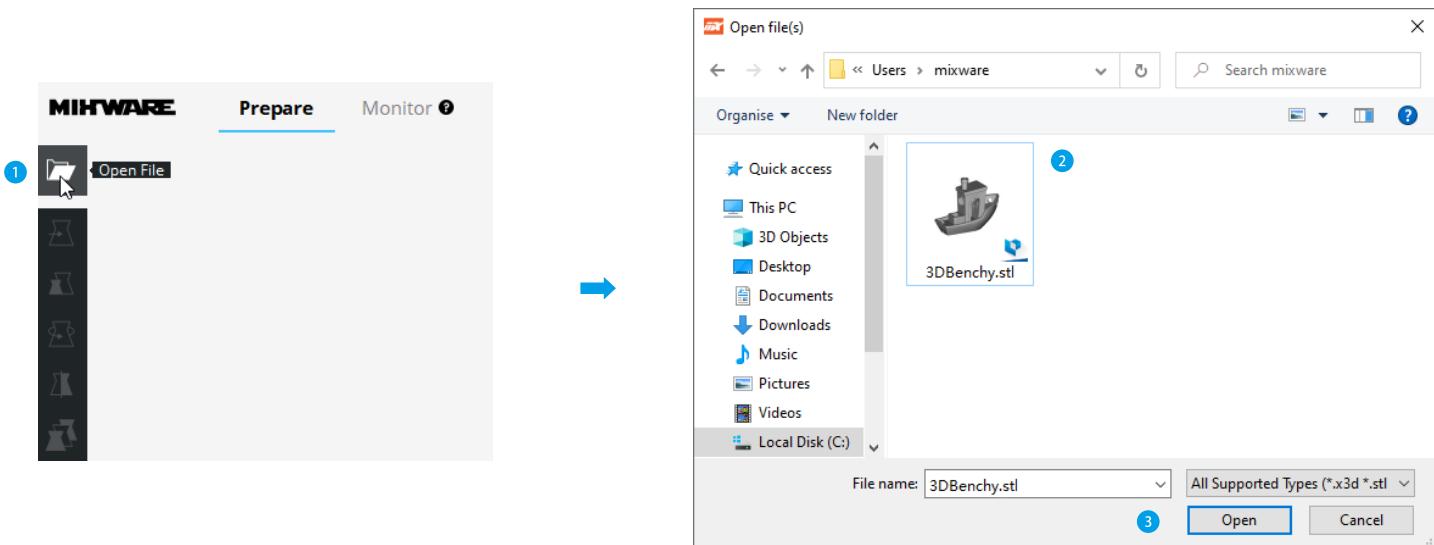
1. When power is suddenly cut off during the printing process, The printer will trigger the power outage function;
2. When you restart the device, the printer is in pause mode the state of stopping printing;
3. Click "**Resume**" to resume from the interrupted position printing.

* **Do not operate the printer at will when the power supply function is triggered. Otherwise, the continuation function will not be realized.**

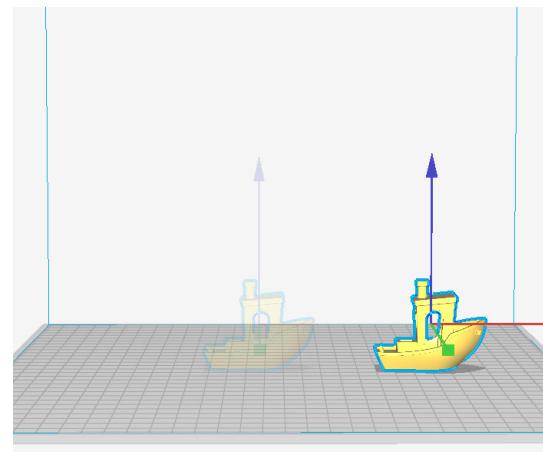
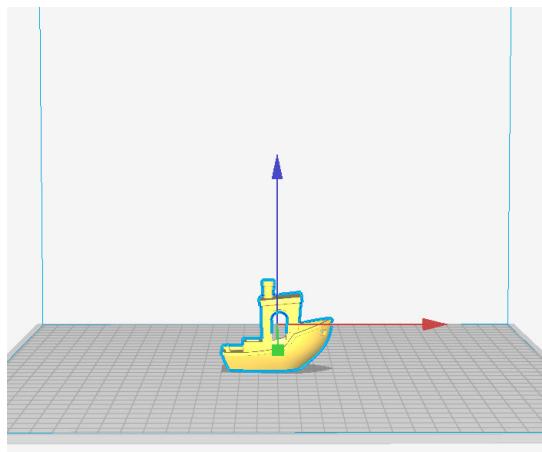
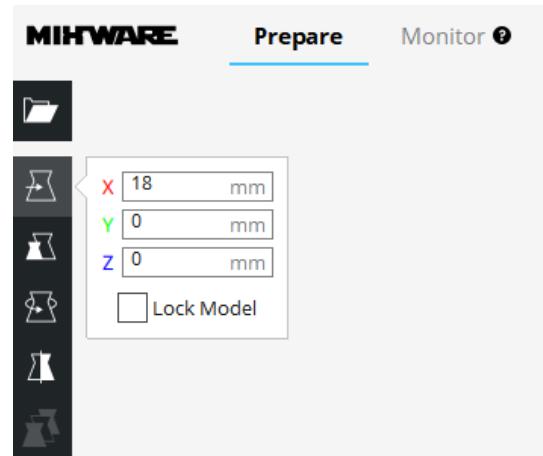
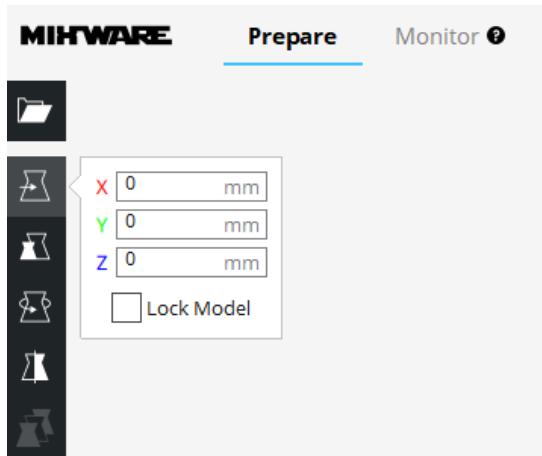


Software Stage

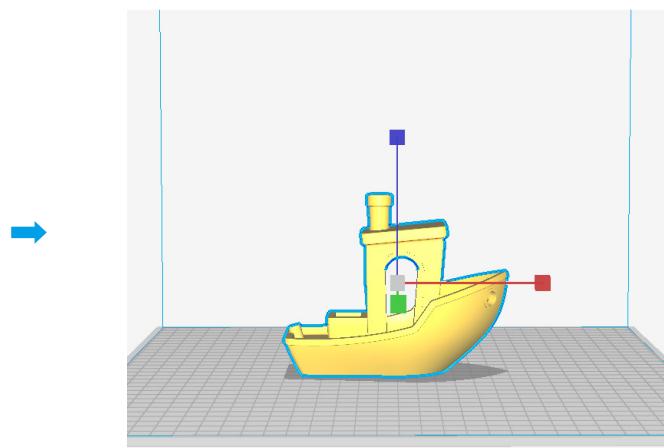
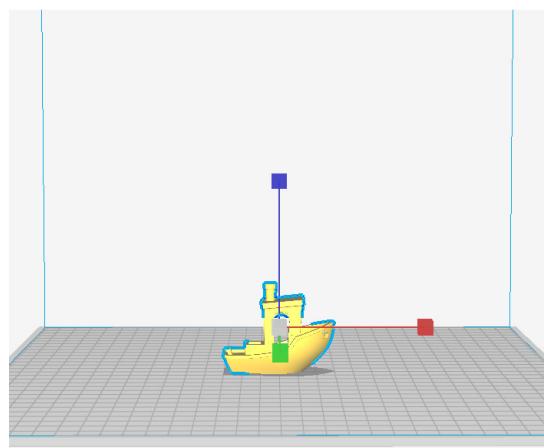
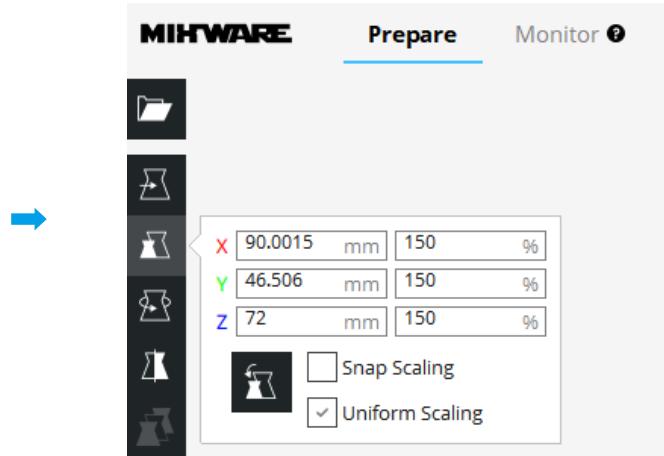
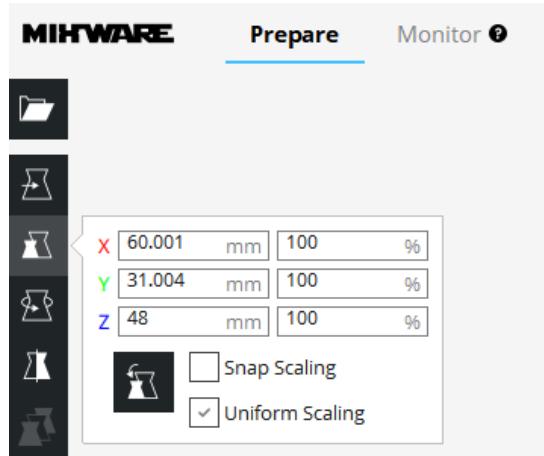
- Model Management



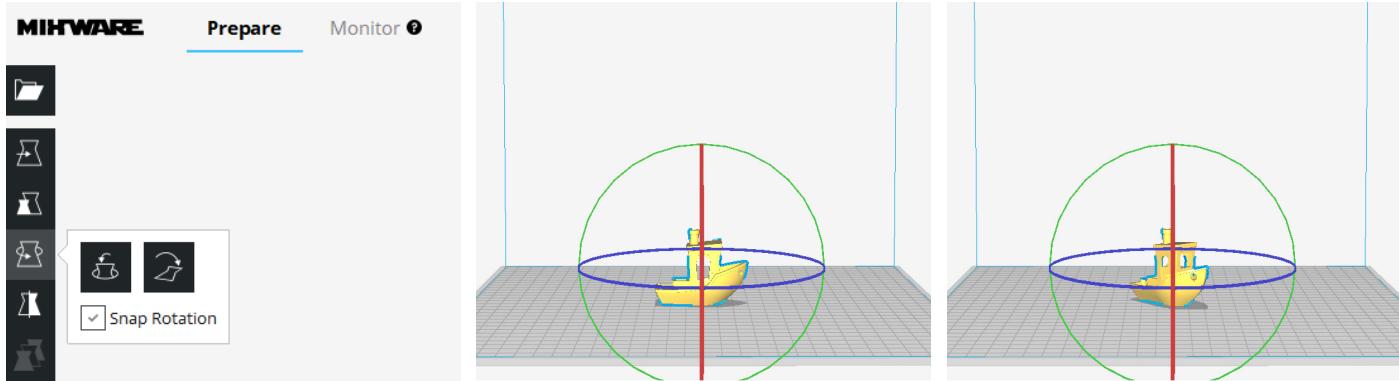
- Click "Open file" and select the model you like, then click open to load it.



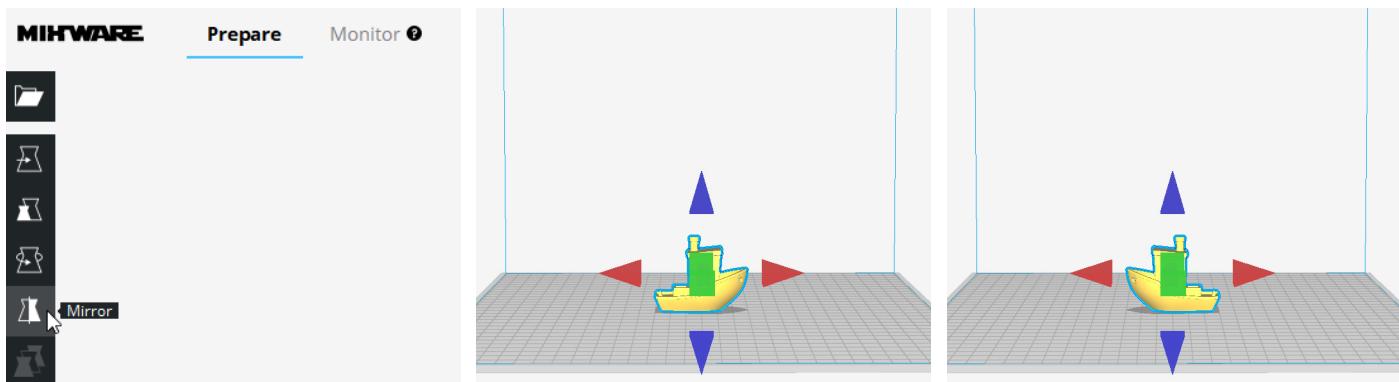
- ② Select the model and use the "move" tool to adjust the placement of printing or place the model to the specified placement.



- ③ Select the model and click “Zoom” to input the needed model size or zoom it to the suitable size.



- ④ Select the model and click "Rotate" to rotate the model.



- ⑤ Select the model and click "Mirror" to mirror the model by clicking the model periphery button.

- Recommended Parameter

Mixware Hyper-S

Material: Hyper-S PLA

Print Setup

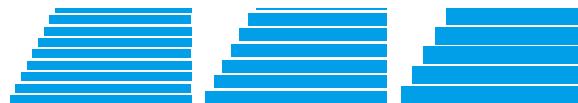
① Layer Height: 0.1, 0.15, 0.2 (selected)

Print Speed: Slower, Faster

② Infill: 20% (selected), Enable gradual

Generate Support

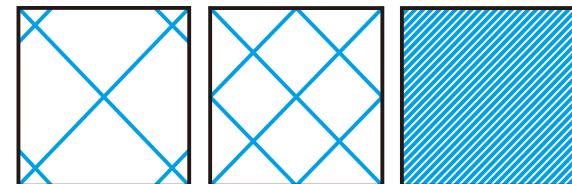
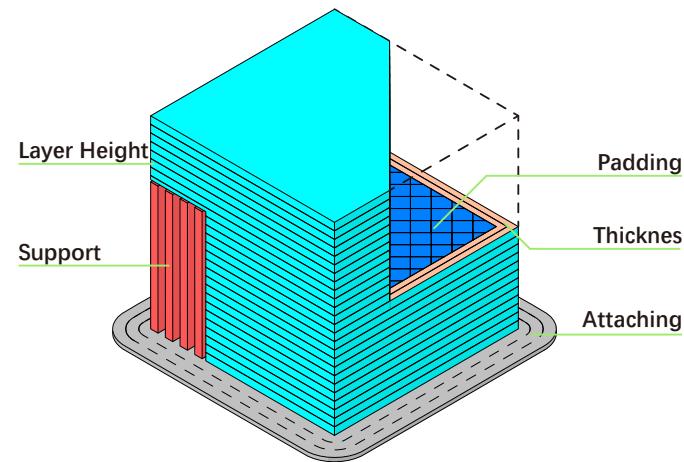
Build Plate Adh...



① Layer height 0.1

0.15

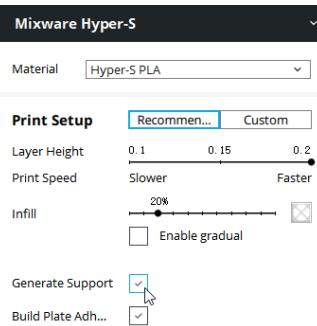
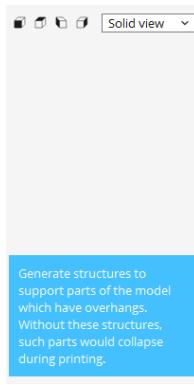
0.2



② Padding 20%

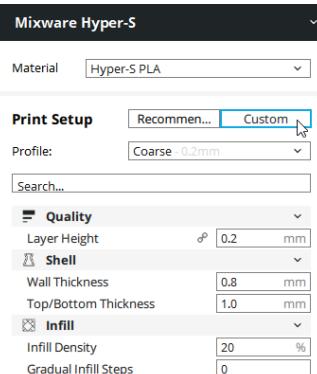
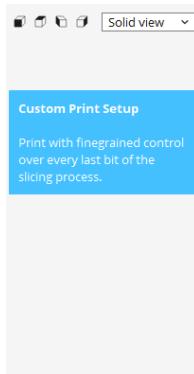
50%

100%

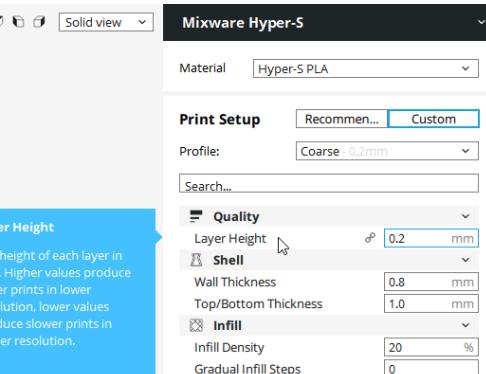
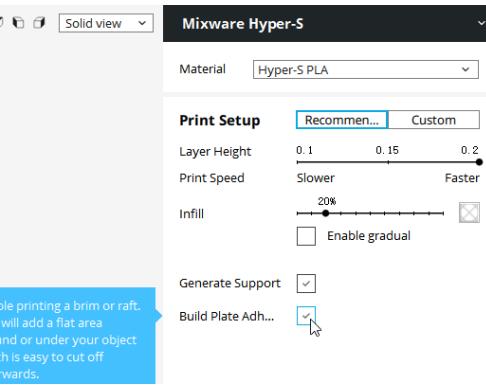


- 3 Click "Generate Support" to prevent the vacant of the model and avoid falling down when printing.

• Customized Parameter



- 1 If more demands of every slice process, please switch to the Custom setting.

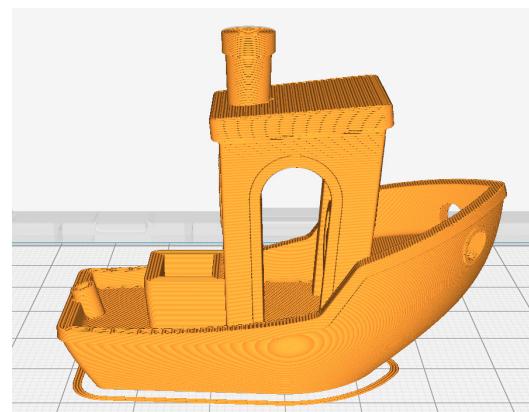
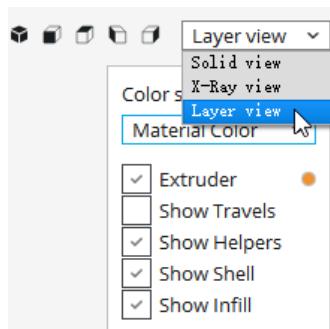


- 2 In Custom setting, the professional parameter description can be known through hovering on each blank.

- Slice Preview



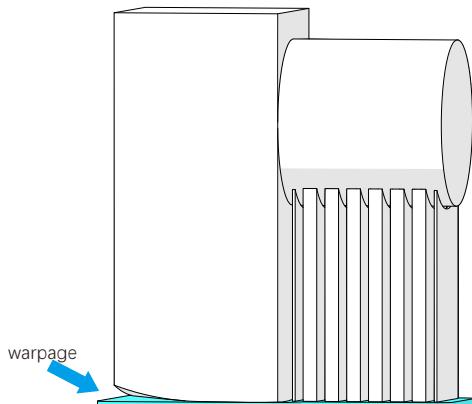
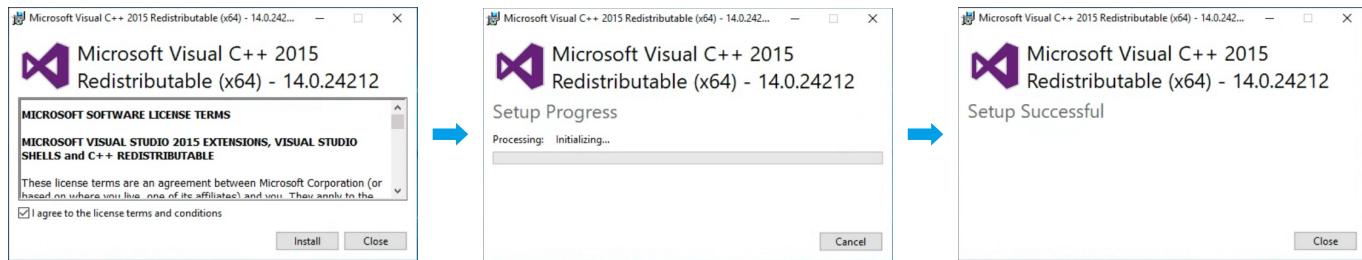
- ① Click the visual mode button on the upright corner, it can preview the model in different visuals.
The default preview is the actual model.



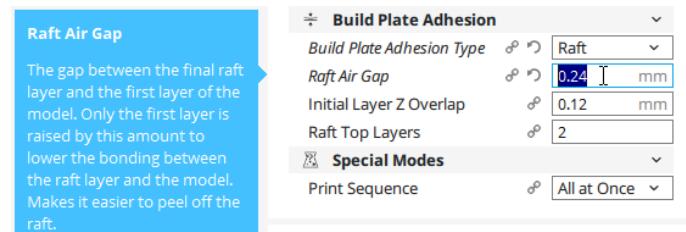
- ② The layered view: Preview the printing track of the slice, and check whether the slice is correct or not.

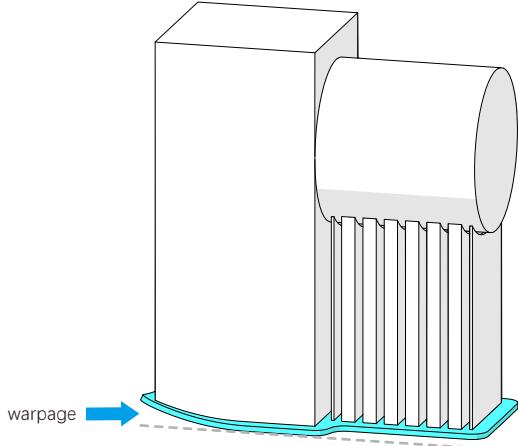
FAQs

- Q1: What if the windows prompt “xxx.dll was not found” after turning on Mixware Slicer?
- A1: Double-click the ‘vcredist_x64.exe’ of the USB drive (Library file missing fix program) )
Follow the guide to install it on your computer.
Installation procedure:



- Q2: What if the model does not adhere to the platform?
- A2: Adjust the “Raft Air Gap” of the “Build Plate Adhesion” in the slicing software. Proposed “Raft Air Gap”: 0.22 or 0.24.



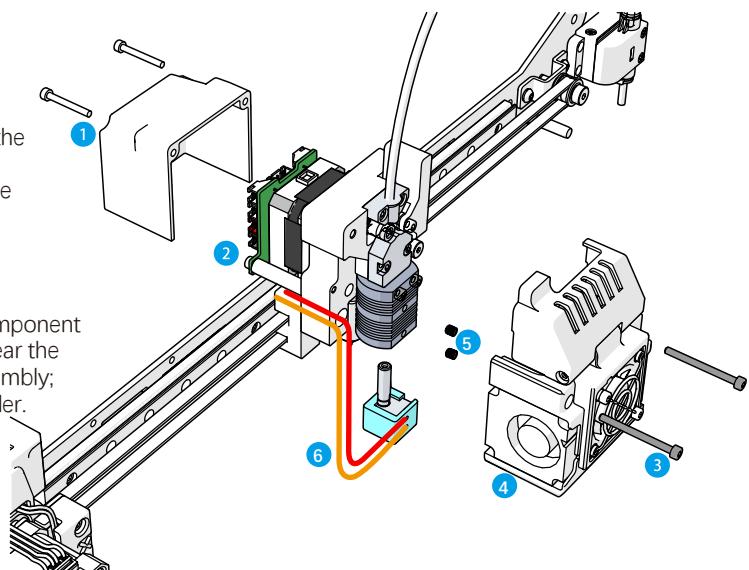


- Q3: What if the model is warping?
- A3: Use the auto-leveling function.

• Q4: How to deal with the jam of the printing head?

- A4: 1. Unscrew the **fixing screw (1)** of the back cover and remove the back cover;
2. Pull out **terminal (2)**(red and black rubber cases) of the nozzle assembly;
3. Remove the **fixing screw (3)** on the fan component;
4. Remove the fan component;
5. Unscrew the fixing screw at the **nozzle part (5)**;
6. Clean or replace the **nozzle component (6)**, if the nozzle component is not to remove, try using a clipper to cut off the extruder near the handle and then pinch the handle to remove the nozzle assembly;
7. Install the nozzle in reverse order according to the above order.

For your safety, do not touch the printing head when it's working or is in HOT. When cleaning or changing the printing head, please do confirm it's power off, the printing head is cool down. If an error occurred, the adult should read the guidebook and guide their children.



■ Disclaimer ■

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