

Photon Mono M5

 User Manual

Dear customer,

Thank you for choosing Anycubic products.

Maybe you are familiar with 3D printing technology or have purchased Anycubic printers before. However, we still highly recommend you read this manual carefully, as the installation techniques and precautions can help you avoid any unnecessary damage or frustration.

Please visit <https://support.anycubic.com> to contact us if you have any questions. You can also learn more information from the website, such as software, videos, models.



Anycubic support center

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Team Anycubic

Safety Instructions

Always follow the safety instructions during assembly and usage, to avoid unnecessary damage to the 3D printer or individual injury.



Please contact our Customer Service if you have any issues after receiving the products.



Be cautious when using the scraper. Never direct the scraper towards your hands.



In case of emergency, please immediately cut off the power of the 3D printer and contact our technical support.



Anycubic 3D printer includes components that can cause injury.



Keep the Anycubic 3D printer and its accessories out of the reach of children.



Vapors or fumes may be irritating at operating temperatures. Always use the Anycubic 3D printer in an open and well ventilated area.



Do not expose Anycubic 3D printer to any water or rain environment.



Use Anycubic 3D printer in an environment with a temperature of 8°C-40°C and a humidity of 20%-50%. For optimal performance, do not exceed this range. Also, avoid direct sunlight exposure.



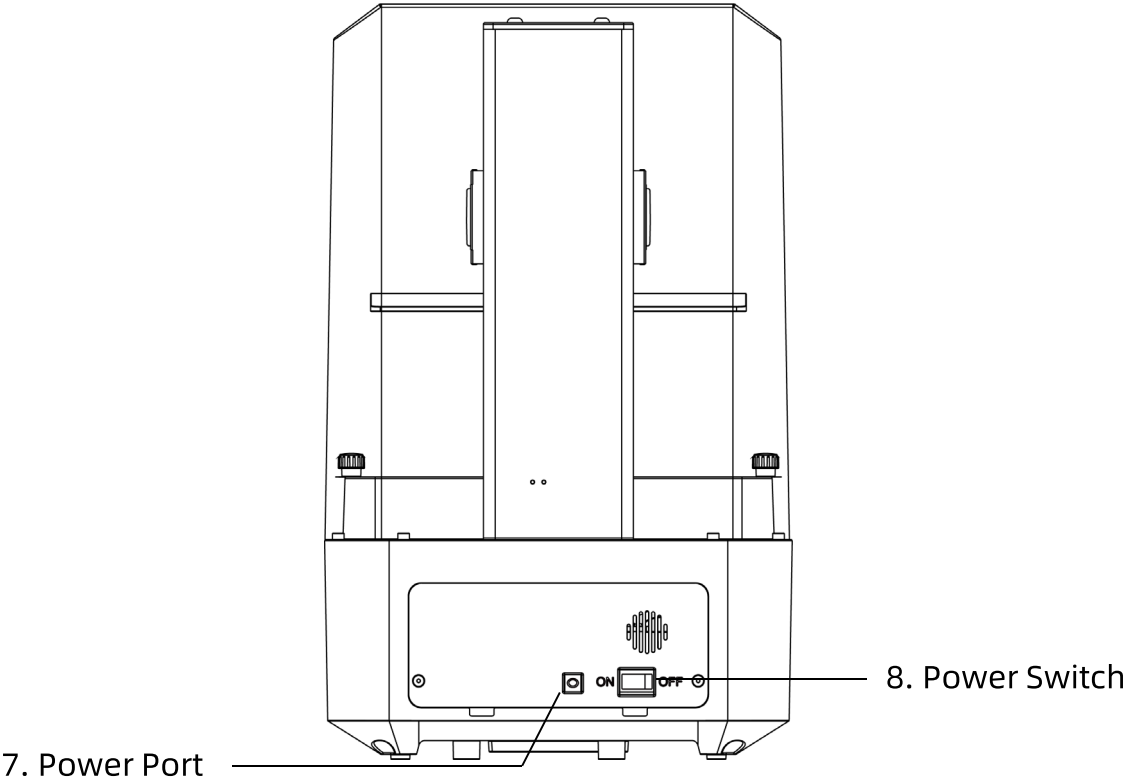
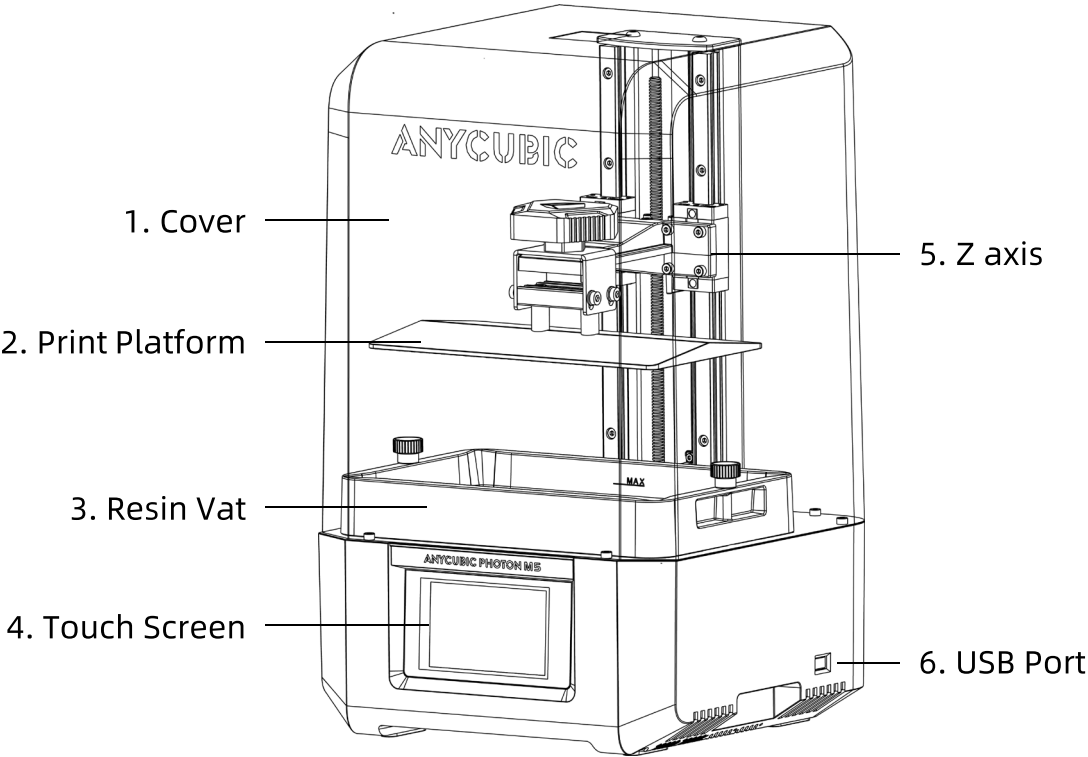
Do not disassemble Anycubic 3D printer, please contact technical support if you have any questions.



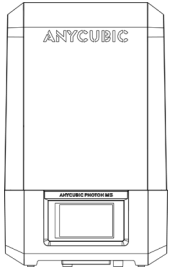
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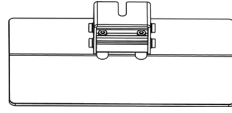
Product Overview



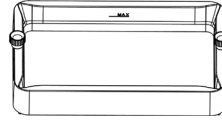
In the Box



Photon Mono M5



Print platform * 1



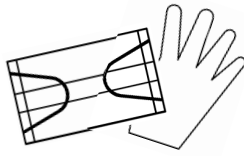
Resin vat * 1



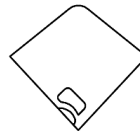
Hex key set



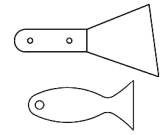
USB drive * 1



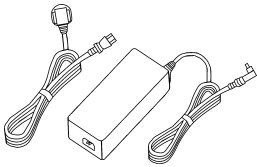
Protective equipment



Funnel*5



Scraper * 2



Power cord
Power adaptor



Manual * 1



Screen protector kit



Leveling paper * 1

Operating System

System	Photon Mono M5
Touch Screen	4.3-inch Resistive Screen
Software	Anycubic Photon Workshop
Connectivity	USB Drive, WIFI

Specifications

LCD screen	10.1 inch 12K
Light source	Matrix LED light
XY Resolution	11520 * 5120
Z axis Accuracy	0.01 mm
Suggested Layer Thickness	0.01 ~ 0.15 mm

Physical Dimensions

Dimension	290 mm(L) *270 mm(W) *460 mm(H)
Build volume	218.88 mm(L) *122.88 mm(W) *200 mm(H)
Weight	8.6 kg

Basic

Layer Thickness	0.05 mm
Normal Exposure Time	2.8 s
Off Time	0.5 s
Bottom Exposure Time	25 s
Bottom Layers	5
Z Lift Distance	8 mm
Z Lift Speed	6 mm/s
Z Retract Speed	6 mm/s
Anti-alias	16
Gray Level	0
Image Blur	3

Notice: Anti-alias and image blur can compensate for the pixel grain to improve the model surface. If you print the models with fine structure, please set the anti-alias as 1.

--The data above root in Anycubic lab, only for reference.

Recommended Print Parameters

Advanced

Layer Thickness (mm)	0.05
Normal Exposure Time (s)	2.5
Off Time (s)	0.5
Bottom Exposure Time (s)	25
Bottom Layers	5
Anti-alias	16
Gray Level	0
Image Blur	3

Bottom Layers

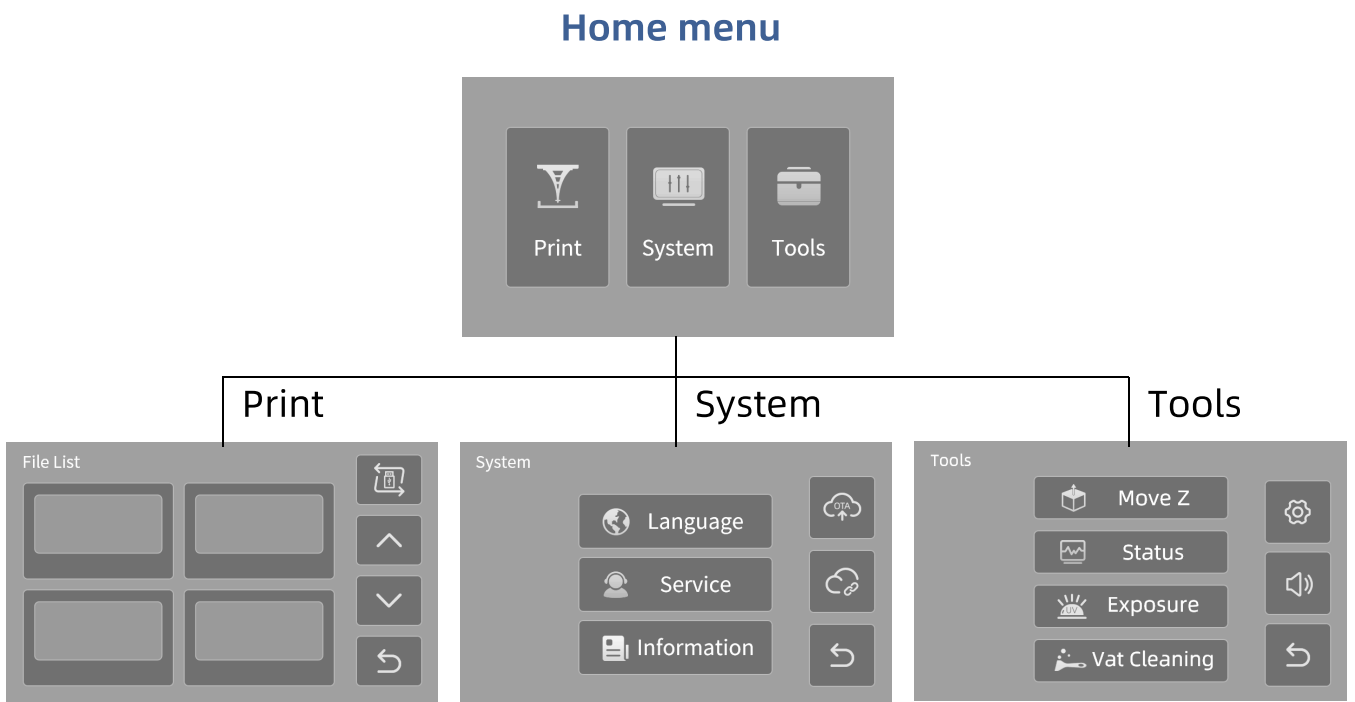
Step [0]	Z Lift Distance (mm)	5
	Z Lift Speed (mm/s)	2
	Z Retract Speed (mm/s)	3
Step [1]	Z Lift Distance (mm)	3
	Z Lift Speed (mm/s)	3
	Z Retract Speed (mm/s)	4

Transition Layer Count: 10

Normal Layers

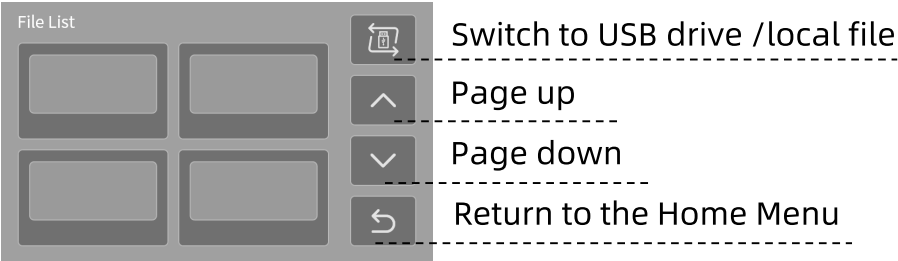
Step [0]	Z Lift Distance (mm)	2
	Z Lift Speed (mm/s)	2
	Z Retract Speed (mm/s)	2
Step [1]	Z Lift Distance (mm)	6
	Z Lift Speed (mm/s)	4
	Z Retract Speed (mm/s)	6

--The data above root in Anycubic lab, only for reference.

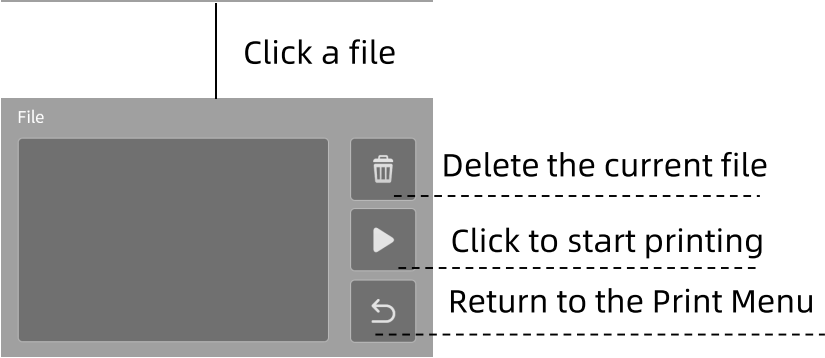


Print

File List:



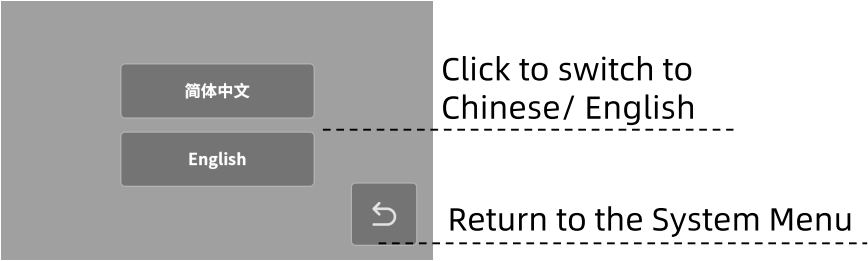
File



Menu Directory

System

Language:



Service:

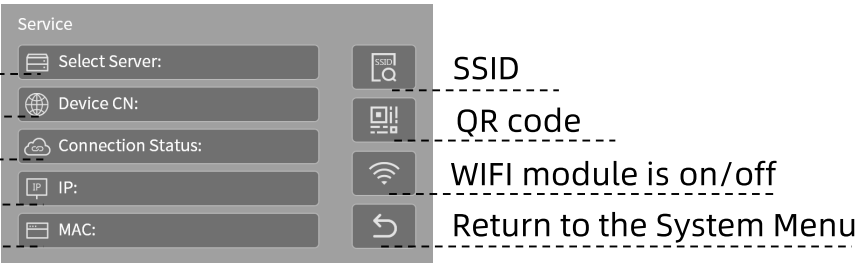
Chinese mainland/
Global server

Printer CN

Cloud server connection status

IP address

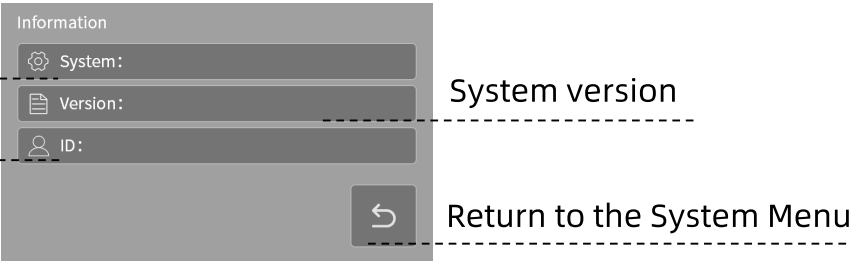
MAC



Information:

Printer system

Printer ID



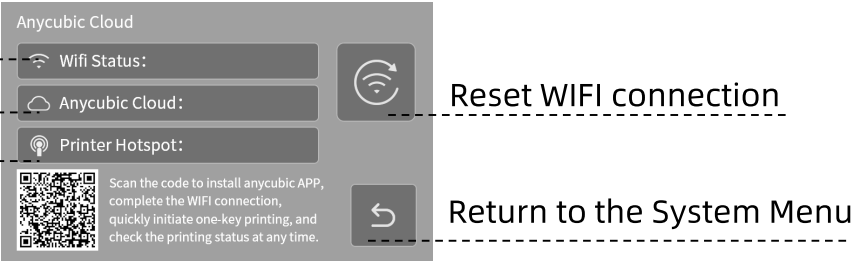
 **OTA Upgrade**

 **Anycubic Cloud:**

Network connection status

Cloud connection status

Name of printer hotspot



Tool

Move Z:

Move the Z axis downwards

Move the Z axis upwards


Stop moving the Z axis

Reset the zero point

Move Z by 0.05mm /1mm/10mm/50mm

Return to Zero

Return to the Tools Menu



Status:

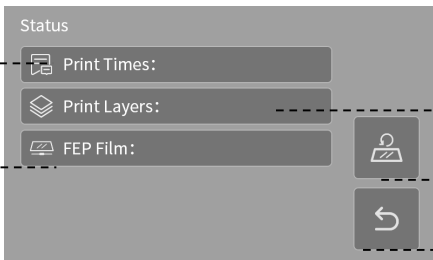
Statistics of print times

Whether release film needs to be replaced

Statistics of print layers

Click to reset the status

Return to Tools Menu



Exposure :

Choose an image to expose

Click to set the time

Expose for the preset time

Reduce the test time

Return to the Tools Menu

Increase the test time

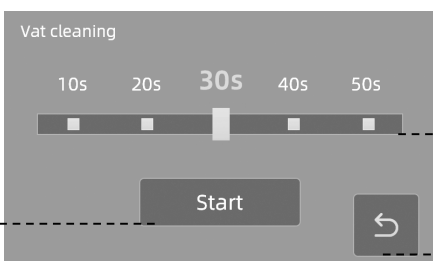


Vat Cleaning:

Set the exposure time

Click to start exposure

Return to Tools Menu





Settings: To enable/disable the print platform moving to top of Z-axis when the printing is finished.



Turn on/off the screen sound

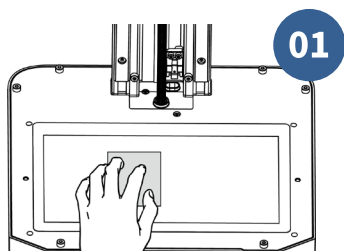
Preparations

1. Plug in power and turn on the machine. Raise Z axis by 100mm.

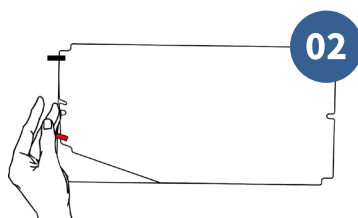


Click 2 times

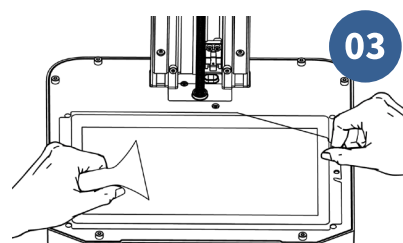
2. Install the screen protector.



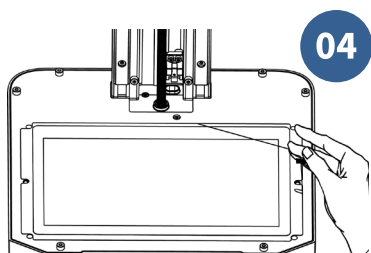
Peel off the protective film
Clean the LCD screen
with tool kit



Peel off the film ①

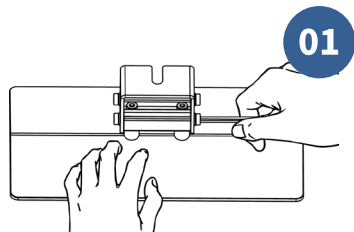


Press and squeeze out
the bubbles

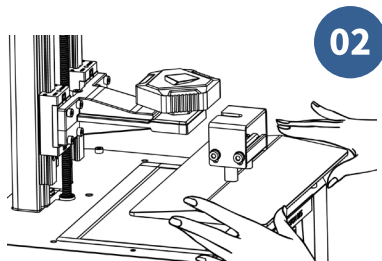


Peel off the film ②

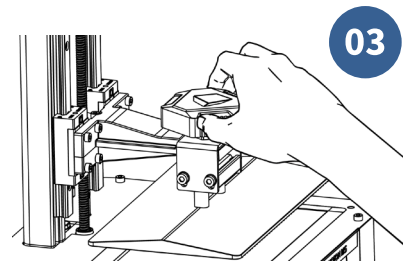
3. Install the print platform.



Loosen the four screws
on the platform



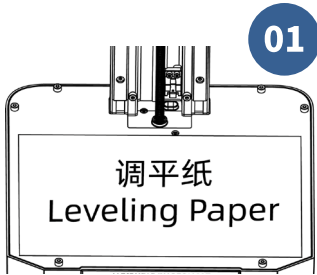
Push the platform onto the
platform carrier



Tighten the knob

Preparations

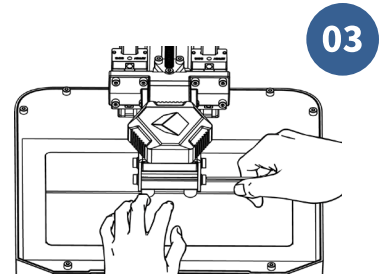
4. Leveling.



Place the leveling paper on the curing screen

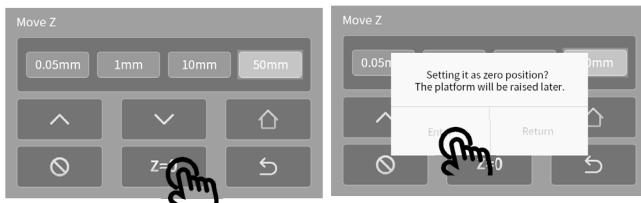


Click "HOME"

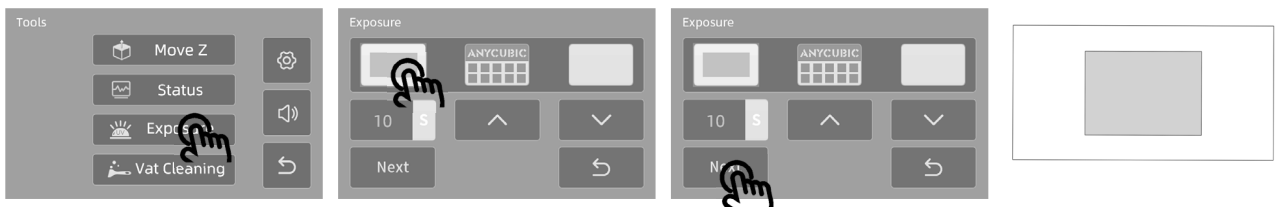


Press the platform gently, tighten the four screws

5. Set the zero position.

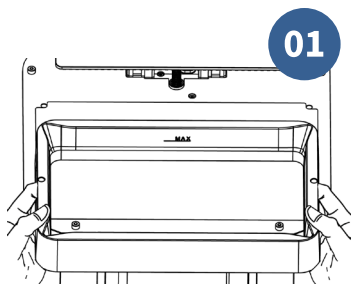


6. Choose an exposure image to test after the platform stops moving.

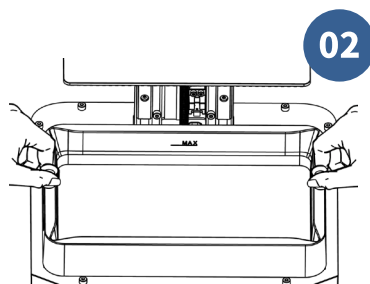


The white part is exposure area

7. Install the resin vat.



Put the resin vat with its feet stuck in locating holes



Tighten two knobs

Cloud Connection

Please connect the printer to Anycubic App first for remote uploading and monitoring.

1. Check whether it is global server. If not, click to switch to the global server and wait for the printer restarting.

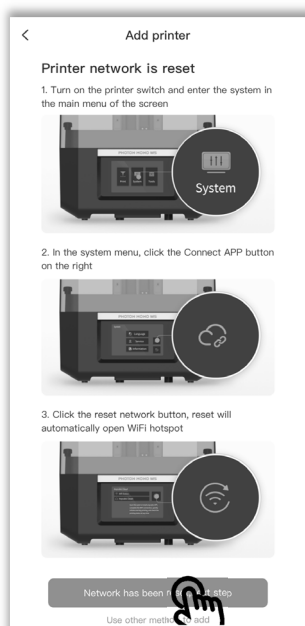


2. Reset WIFI connection.

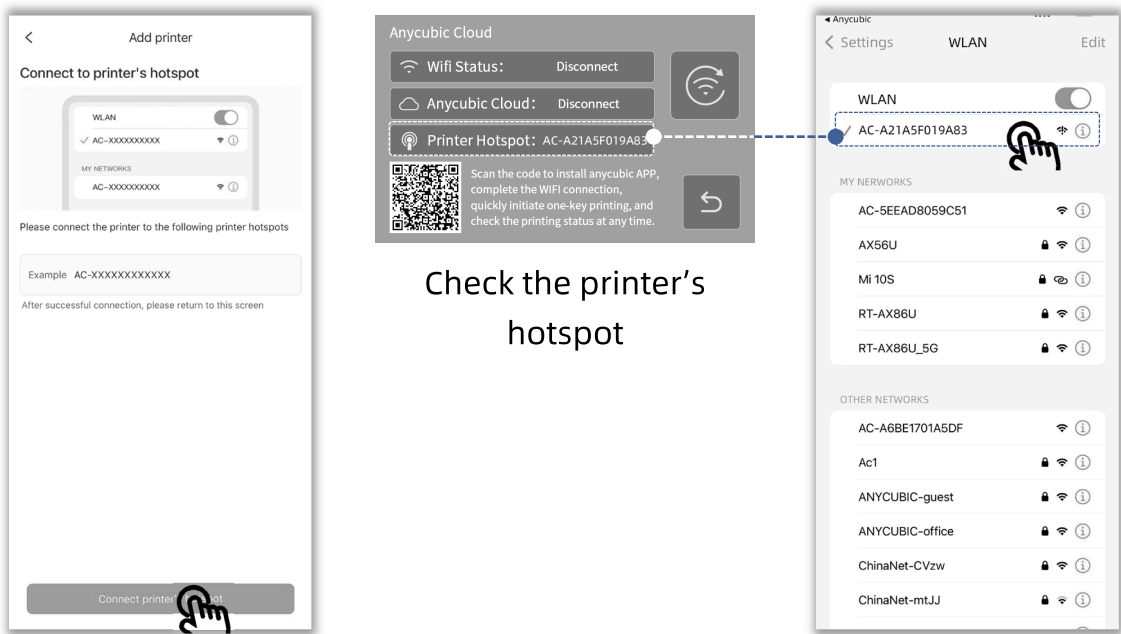


3. Please search "Anycubic" in App Store or Goolge Play, or scan the QR cord on the printer, to download Anycubic App. Then, sign up and sign in.

4. Add a printer in Anycubic App.



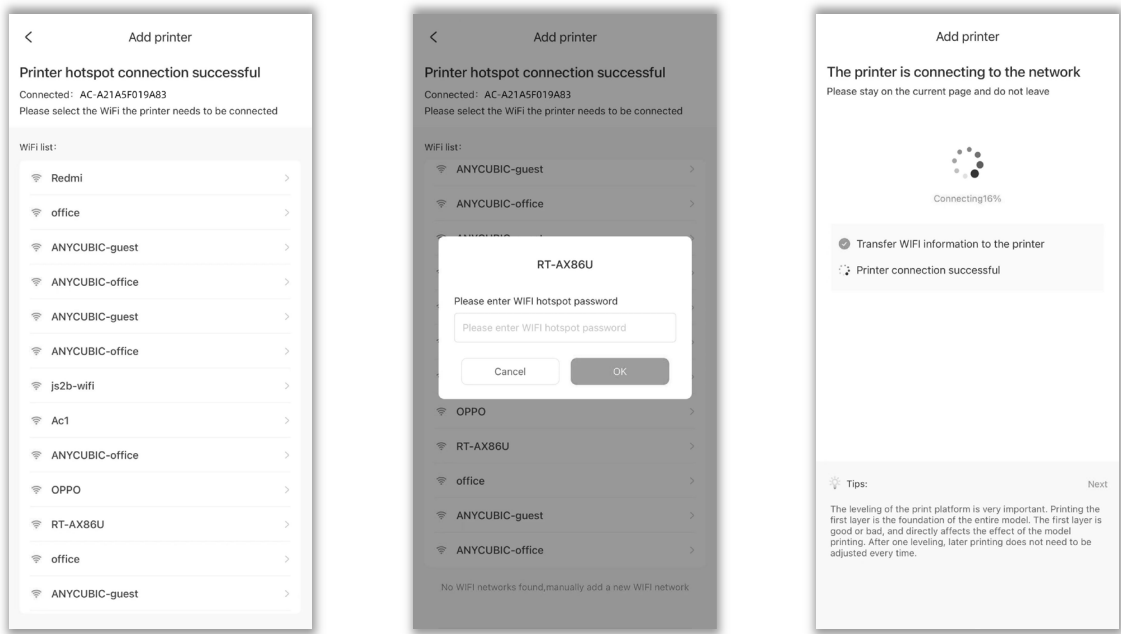
5. Connect to printer's hotspot.



Check the printer's hotspot

Select the printer's hotspot

6. Return to App, connect the printer to the network.



Select WIFI

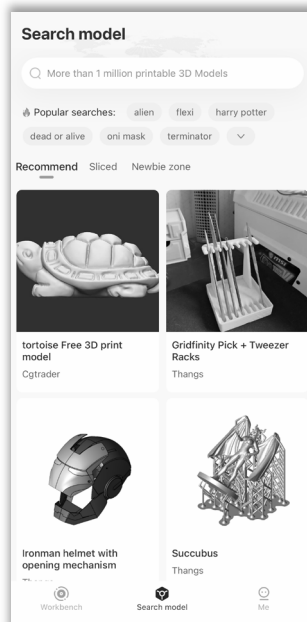
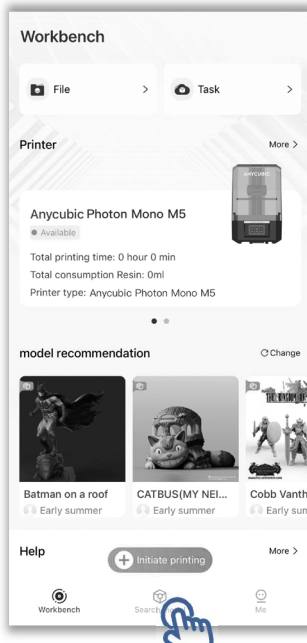
Enter in password

Notice:

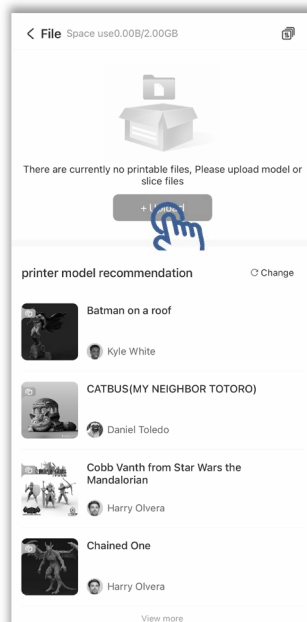
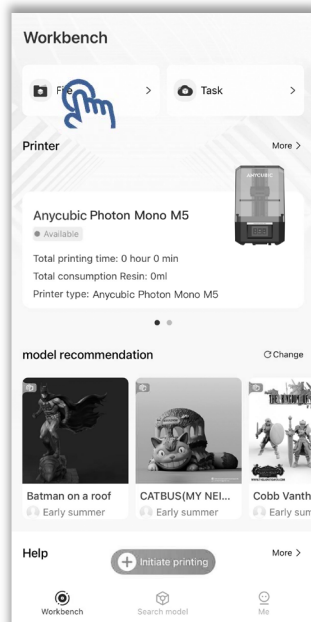
- ① The location and local network must be allowed to use during connection.
- ② Please ensure the connection to printer's hotspot during the network connection to avoid connection failure.

7. Printer is added successfully. Search model or upload the model files.







- Search model



- Upload the model files



Troubleshooting

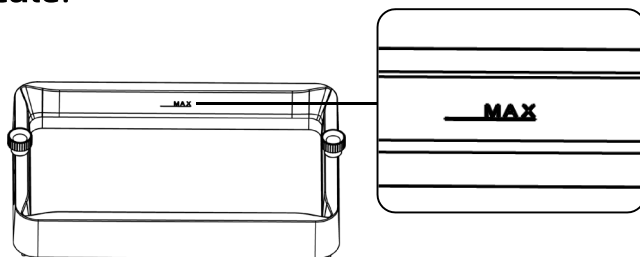
Issues	Troubleshooting	Solution
Fail to connect to printer's hotspot in App	Check whether the hotspot is printer's MAC	If not, please reconnect to the printer's hotspot.
	Check whether Connection Status in Service interface is connect	If not, please click  to turn off WIFI module, and then click  to turn on the WIFI module.
The printer prompts that WiFi connection failed 	Check whether the WIFI and its password is correct	If not, please click  in System-Anycubic Cloud on the printer to reset WIFI. Then, connect the printer to network again.
	Check whether the SSID on printer is the WIFI	If not, please click  in System-Anycubic Cloud on the printer to reset WIFI. Then, connect the printer to network again.
	Check whether the WIFI network is unavailable	Join an available network. Click  in System-Anycubic Cloud on the printer to reset WIFI. Then, connect the printer to network again.

Print Test

***The release film on the resin vat is consumable. Please pay attention to the status of release film on the touch screen and replace the film timely.**

Please check the release film carefully before and after every printing. If the film is broken, replace it immediately to avoid further damage to the machine.

1. Make sure you wear masks and gloves (to avoid direct skin contact with resin), slowly pour resin into the vat with **resin level not exceeding the vat's maximum scale.**

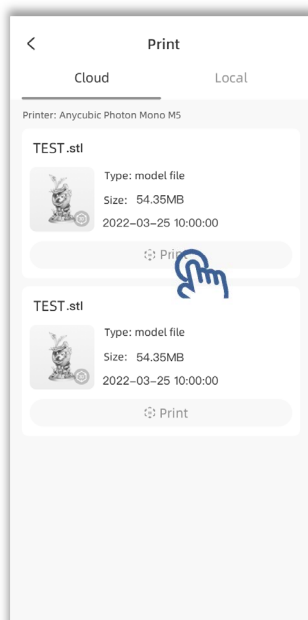
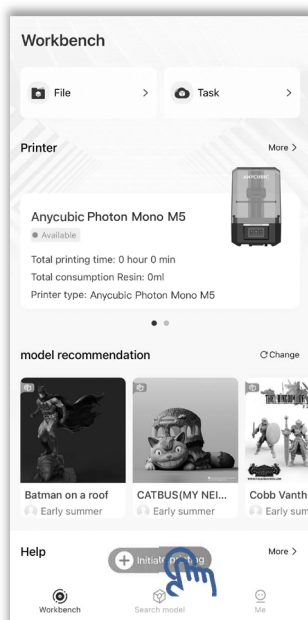


2. Put on the cover. Then, print file.

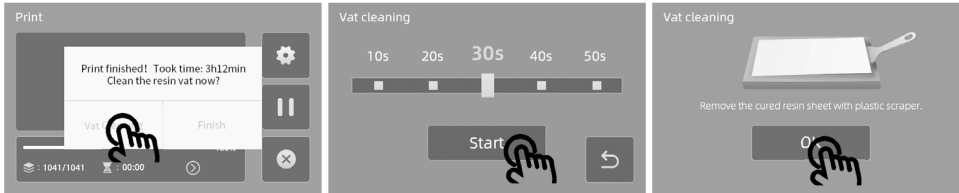
- USB drive file: Insert the USB drive and print the test file.



- Remote print



3. When the printing is finished, resin may be cured partly in the vat. Please set to Vat Cleaning and remove the residue.



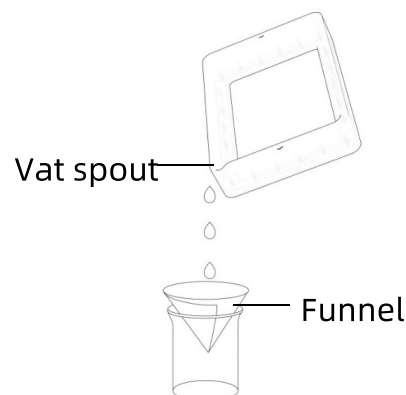
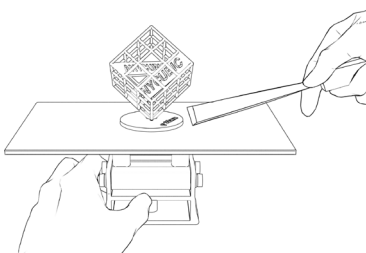
Remove resin sheet
by plastic scraper

Notes:

- ① It's recommended that use the USB drive we provide. Otherwise, please use a USB drive whose memory size **does not exceed 32G** and ensure that it's formatted to **FAT/FAT 32**.
- ② The print files should be placed at the root directory of USB drive to avoid read errors.

4. Finishing

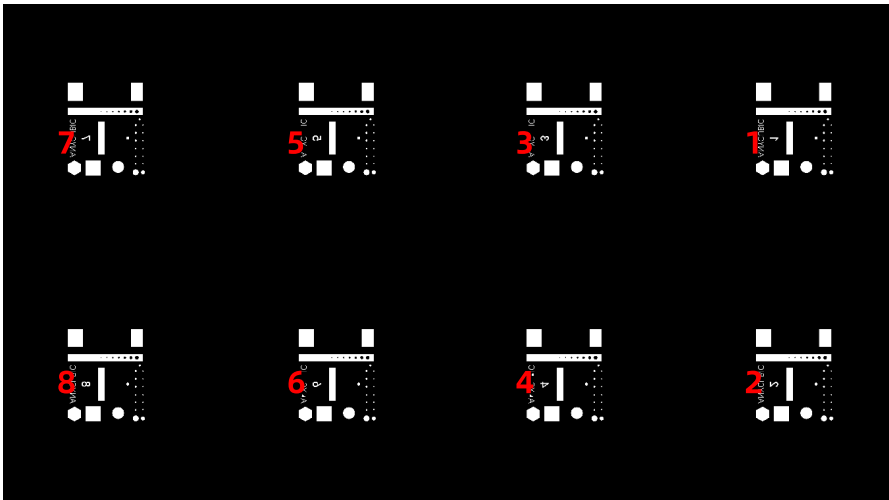
- After printing, remove the platform when resin stop dropping from the platform. Remove the model by metal scraper and then wash it with 95% alcohol or other detergent. It may need post-curing to achieve better hardness by being exposed directly to sunlight or a UV-curing machine.
- After printing, there might be some cured resin left in the vat. Please clean the vat timely, and filter the remaining resin by a funnel. Otherwise, it may cause damage to the release film or LCD screen. If you do not use the resin now, it is recommended to store it in an airtight container away from light.



Resin Exposure Range Finder

“R_E_R_F” is an abbreviation for “Resin Exposure Range Finder”. This function is used to find out the optimal exposure parameters for different resins.

1. Import the R_E_R_F file which is saved on USB drive into the slicing software. There are eight models in the file. The exposure time for model 1 is equal to "normal exposure time (s)" of the file, and the exposure time for other models will be increased by an increment of **0.25 s**.



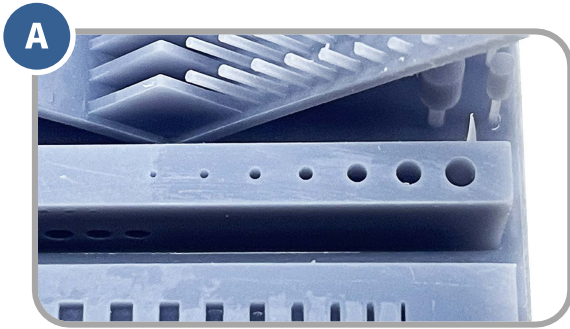
The numbers on the models indicate their order

2. According to the personal requirement, adjust the exposure time of the models by modifying "normal exposure time (s)" of the file. When exposure time for Model No. 1 is changed, the exposure time for other models will be increased by an increment of **0.25 s**.

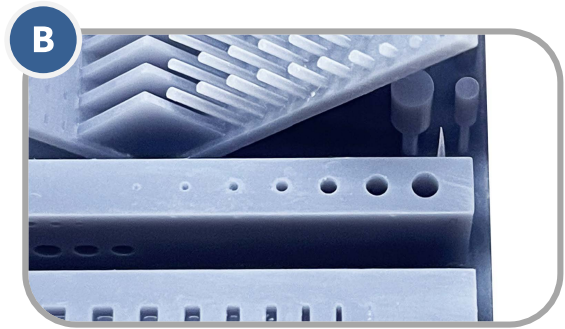
For example, when normal exposure time is set to 1.5 s, the exposure time for Model No.1-8 is: 1.5 / 1.75 / 2 / 2.25 / 2.5 / 2.75 / 3 / 3.25 s.

3. After printing, remove and clean the models. Compare the print effect of models and choose the model's exposure time that meets your needs as the print parameter. Take a comparison of model A&B as an example.

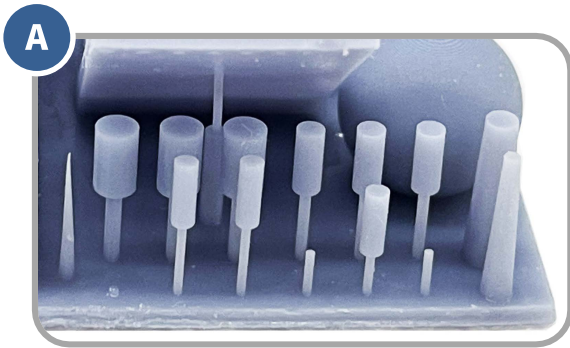
Resin Exposure Range Finder



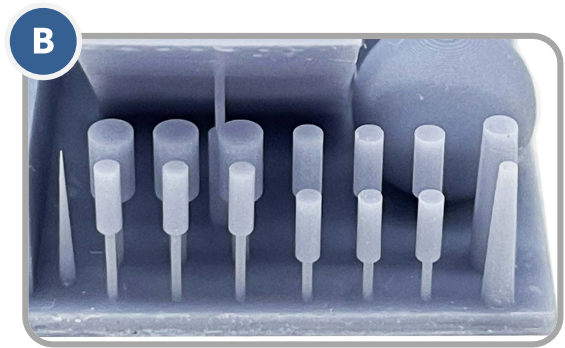
More holes



Less holes



Less cylinder



More cylinder

- Model A has more holes and fewer cylinder. If you print by the parameter of model A, more details of model can be printed with high risk of failure.
- Model B has fewer holes and more cylinder. If you print by the parameter of model B, model may be printed successfully yet with some details lost.

In addition, you can compare the bridges, needles or other parts to choose a proper model and find the parameter. If none of them can be chose, adjusting the "normal exposure time (s)" is suggested.

Notice: DO NOT change the file name of "R_E_R_F" , because Anycubic 3D printer can only recognize THIS file name to run this function. Also, do not name other file as "R_E_R_F" .

Model do not stick to platform

- Bottom exposure time is insufficient. Please increase the exposure time.
- Contact area between the model and platform is small. Please add a raft.
- Bad leveling.

Layer separation or splitting

- The machine is not stable during printing.
- The release film is not tight enough or needs a replacement.
- The printing platform or resin vat is not tightened.
- The lift speed is too fast.
- The model is hollowed without punching.

Layer shift

- Add supports.
- Reduce the lift speed.

Floccules left in resin vat or attached to models

- The exposure time is too long. Reduce the normal exposure time and bottom exposure time.

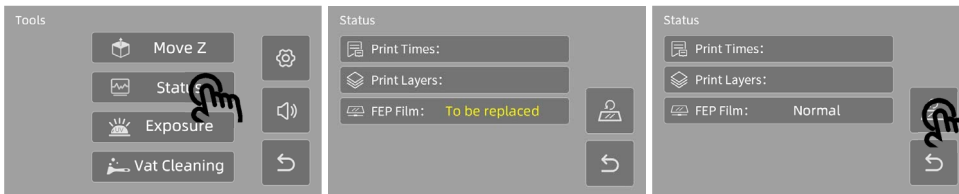
Resin vat maintenance

- **Remove the cured resin from release film:** Click Vat Cleaning and then remove the cured resin sheet to protect the film. Do not use sharp objects to scrape off the residues on the film.



Remove resin sheet
by plastic scraper

- **Release film replacement:** The statistics of print times and print layers are shown in Status interface. Please check them and replace release film timely to avoid print failure or even the damage to printer.



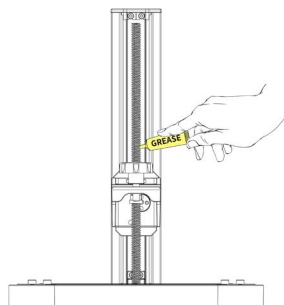
Replace release film
at this time

Click reset button
after replacement

- If you do not use the resin for over two days, store it in an airtight container away from light.

Z axis maintenance

If Z axis makes a noisy sound, please apply lubricant to Z lead screw.



Cleaning

- **Clean the print platform:** Clean platform with alcohol and paper towel.
- **Protect LCD screen:** If the resin cured on screen protector, please replace it immediately to protect LCD screen.
- **Clean the body of printer:** Clean the body of the printer with alcohol.

Thank you for purchasing Anycubic products! Under normal usage and service, the products have a warranty period of up to one year. Please visit Anycubic support center(support.anycubic.com/en) to report any issues with Anycubic products. Our professional after-sale service team would respond within 24 hours and solve the issues.