Manuals+ — User Manuals Simplified.

ANYCUBIC Photon Mono – 4K Resin 3D Printer User Manual

Contents

ANYCUBIC Photon Mono – 4K Resin 3D Printer

Safety Instructions

Always follow the safety instructions during assembly and usage, to avoid unnecessary damage to the 30 printer or individual injury

- Please contact our customer service first if you have any issue 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 ANYC:lJl!IC: 3D printer and contact the technical support.
  1\NYC:Umc: 3D printer includes moving parts that can cause injury.
- It is recommended to use protection glasses when sanding the printed models to avoid eye contact with small particles.
- Keep the ANYC:lJl:HC: 3D printer and its accessories out of the reach of children.
- Vapors or fumes may be irritating at operating temperature. Always use the ANYC:umc: 3D printer in an open and well ventilated area.
- 1\NYc:umc: 3D printer must not be exposed to water or rain.
  Operate 1\NYC:umc: 3D printer with a temperature of 8°C-35°C and a humidity of 20%-50%. For optimal performance, do not exceed this range. Also, avoid direct sunlight exposure.
- Do not disassemble ANYC:lJl!IC: 3D printer, please contact technical support if you have any question.

Technical Specification

Printing

System ANYCUBIC Photon Mono 4K

Operation .8-inch Color TFT Screen
Software ANYCUBIC Photon Workshop
Connectivity USB memory stick

Specifications
Technique LCD Shadow Masking
Light source UV-LED (wavelength 405nm)
XY Resolution 3840*2400 (4K)
Z axis Accuracy 3840*2400 (4K)
Suggested Layer Thickness 0.01 mm 0.01-0.15 mm
Print Speed Max 50 mm/h
Rated power 45 W

Physical Dimensions
Dimension 222 mm {L} *227 mm (W) *383 mm {H}
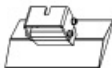Build volume 132 mm{L}*80mm(W) *165 mm {H}
Materials 405nm UV-resin
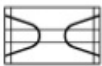
Recommended Printing Parameters

Layer Thickness 0.05 mm
UV power 100%
Normal Exposure Time 2 s
Off Time 0.5 s
Bottom Exposure Time 40 s
Bottom Layers 6
z Lift Distance 6mm
z Lift Speed 4 mm/s
z Retract Speed 6 mm/s
Anti-alias 1

Note:

1. The recommended printing parameters above is for reference only, which is more suitable for Anycubic resin.
2. The UV power of the machine is high. If there are solid residue in the resin vat or on the printing platform frequently, please decrease the UV power and increase the normal exposure time.

Packing List

	Print platform 1PC	Resin vat 1PC
	U S B	
Photon Mono 4K	USB memory 1PC	Scrapers 2PCS
Mask 1PC	Gloves 3Pairs	Funnel 5PCS	Assembly Instruction 1PC
Leveling paper 1PC	Screen protector kit	Tool kit	Power adaptor 1PC

Product Overview

Platform securing knob

Platform bracket

Printing platform

Vat retaining screw

Z lead screw

Resin vat

USB port

Power switch

Touch screen

Cover

Sticker

Power port
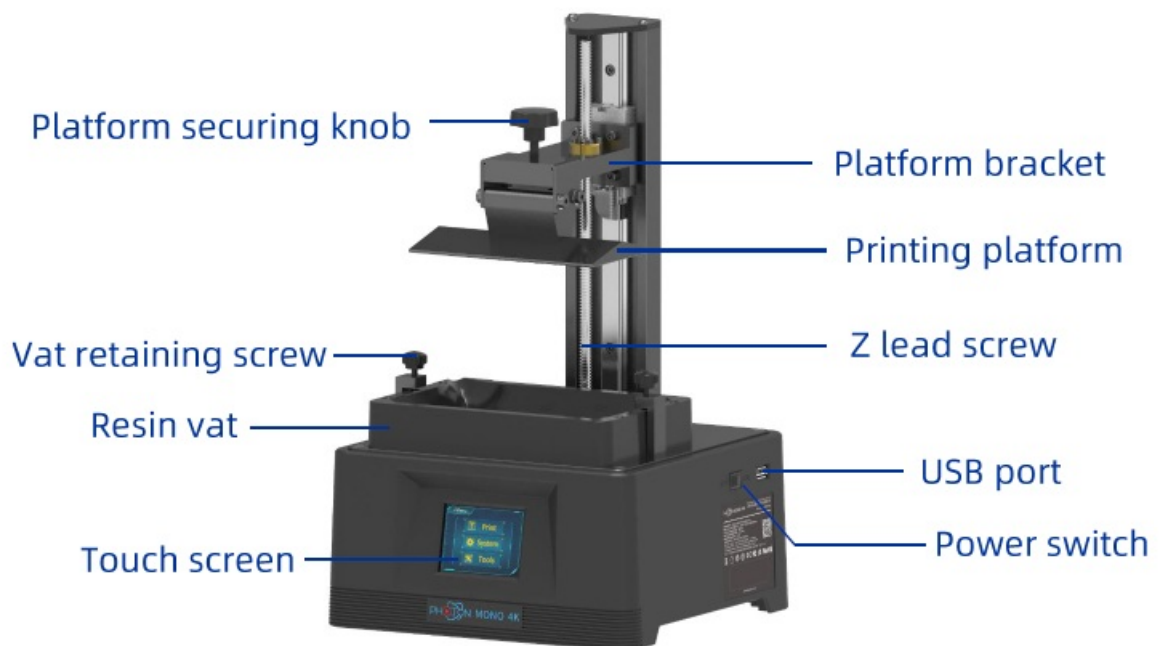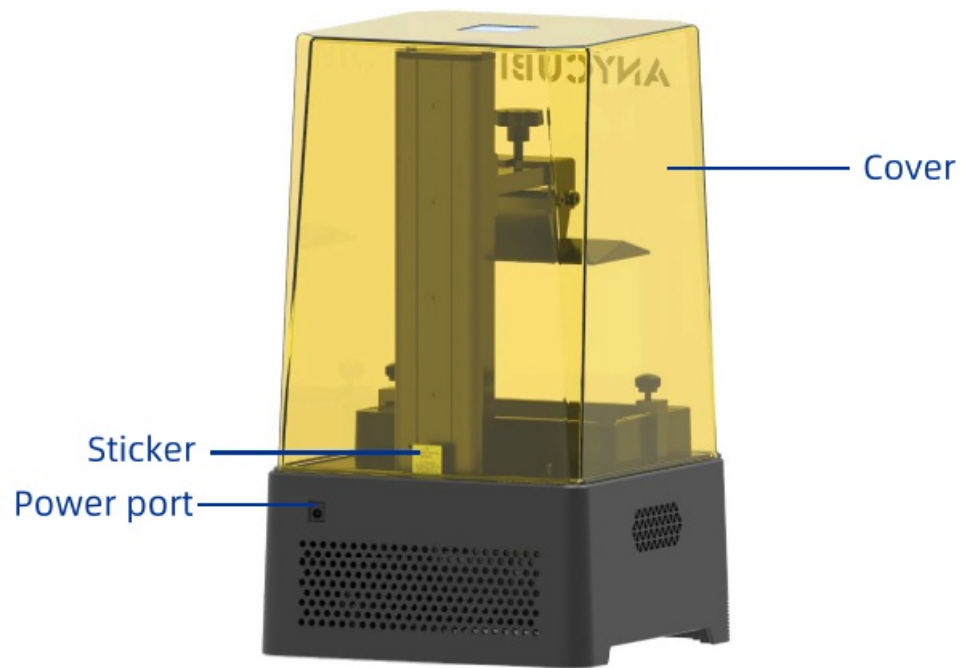
Menu Directory

Home menu
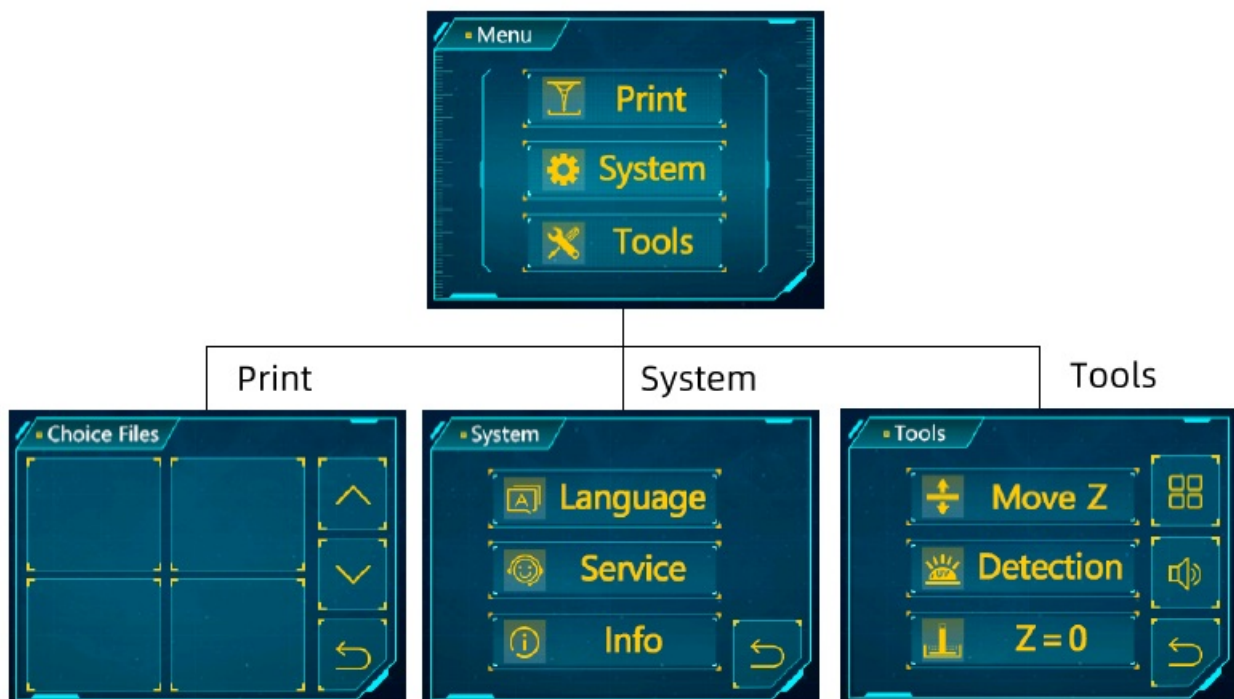
Print

System

Tools

Home menu

Home menu
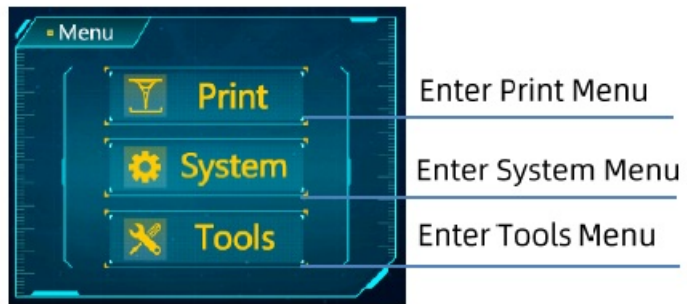
Menu Directory

Print

File List:
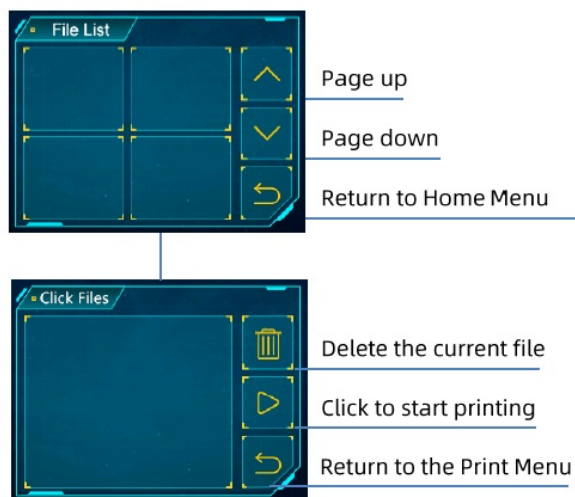
System
Language: Change language(English/Chinese)
Service:

Service — www.anycubic.com — Official website — Return to System Menu

Info — Product system / System: — System version — Product ID / ID: — Version: — Return to System Menu

Tools

Move Z:

Move Z — Move Z by 0.1mm/1mm/10mm — Move the Z axis upwards — Return to Zero — Stop moving the Z axis — Return to Tools Menu — Move the Z axis downwards

Detection:

Detection — Select one of the images to detect — Click to set the test time — Reduce the test time — Test LED and DMD for the preset time — Next — Return to Tools Menu — Increase the test time

More:

Tools — Click to set UV power — UV Power — Click to enable/disable Door detection — Door Sensor — Return to Tools Menu

Z=O: Reset the zero point
Horn icon: Turn on/off the screen sound

Assembly and Leveling Instructions

1. Unpack the machine and take out the accessories. Then plug in the power cord and turn on the printer.
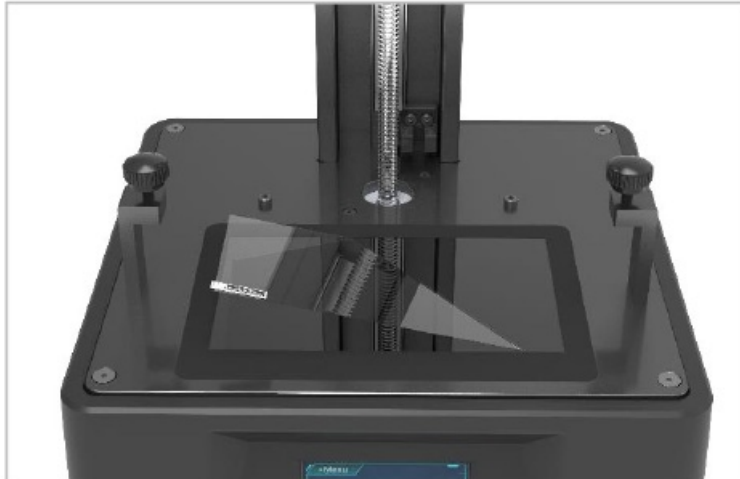
2. Rise the Z axis to a certain height to ensure that the curing screen will not be scratched when printing platform is installed.

3. Tear off the protective film before leveling and printing.

4. Peel off the packing film on the printing platform, then loosen the four screws.
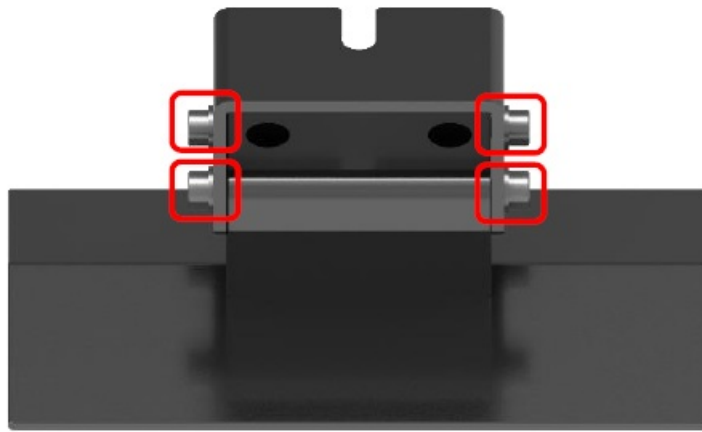
5. Install the printing platform.

6. Place a leveling paper on the curing screen. Then click" rtil on the touch screen. Wait for the Z axis to descend and stop automatically.

7. Use your fingers to press the platform gently, to let it fit evenly on the curing screen. Then tighten the four screws on the platform.

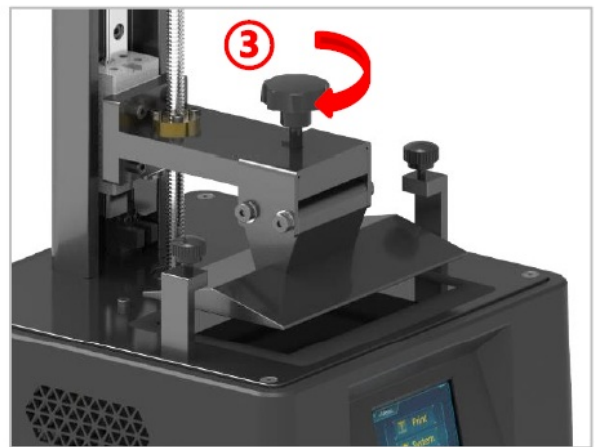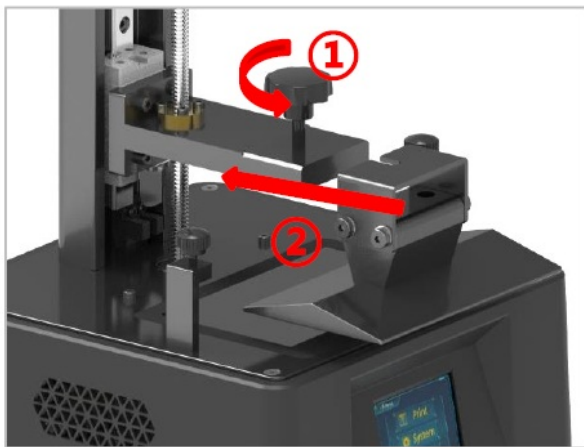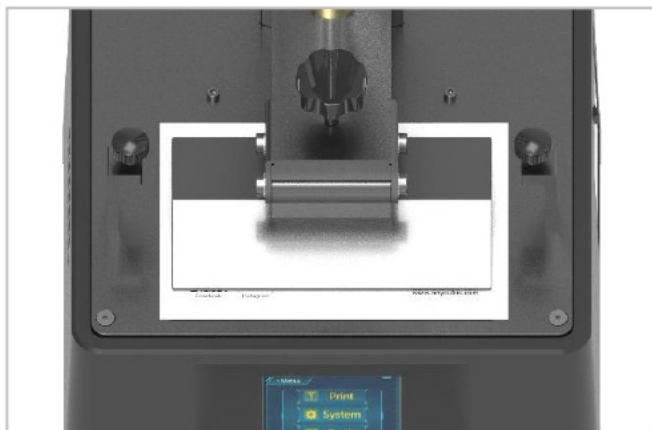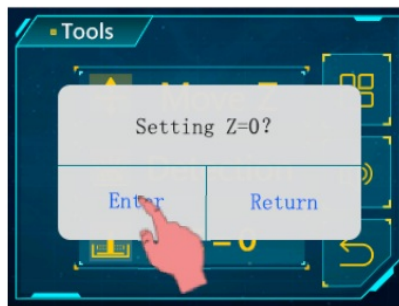8. Click "Tools" "Z=O" on the touch screen, and then click "Enter" on the pop-up window. Till now, the leveling process is finished. Click "Enter" again on the pop-up window and pull out the paper.

9. Testing UV light: Click "Tools" "Detection", select a image and the test time, and then click "Next" on the screen as shown below. It should display a complete image as what you select. Otherwise, the UV light may have sort of malfunction, please contact tech support.
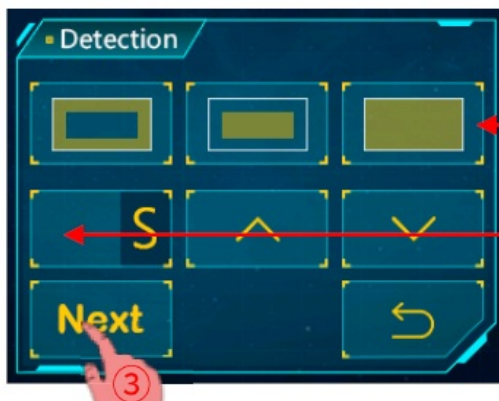
① Select one of the images to detect

② Click to set the test time in detection

③

the result of first image

10. Install the resin vat. Please use the plastic resin vat provided with the machine or Anycubic Photon Mono black resin vat. Do not use metal vat, which may cause print failure.
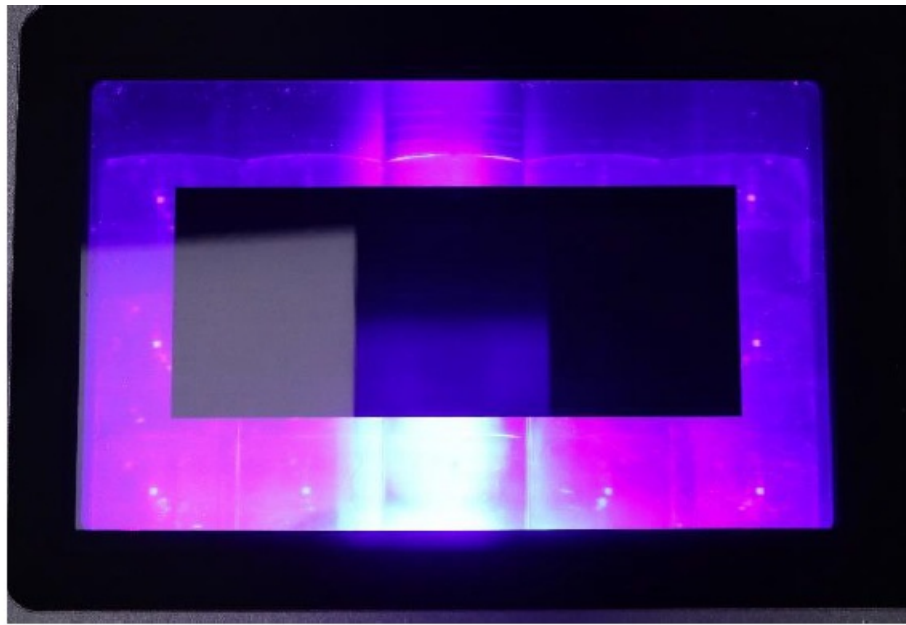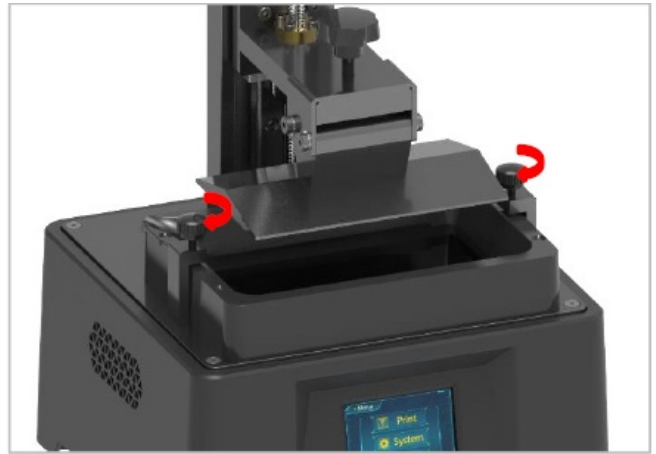

First Print Instructions

Print

Insert the USB memory (the test file "TEST. pwma" has been saved in it) into the USB port. Then wear masks and gloves (to avoid direct skin contact with resin), slowly pour the resin into the vat and the resin cannot exceed the vat's maximum scale.

After that, put on the cover. Take off the gloves, select the "TEST.pwma" test file and start printing. (The printing time on the screen is for reference only, we make no guarantee that it is the actual printing time.)

Do not exceed the maximum scale on the vat

sticker
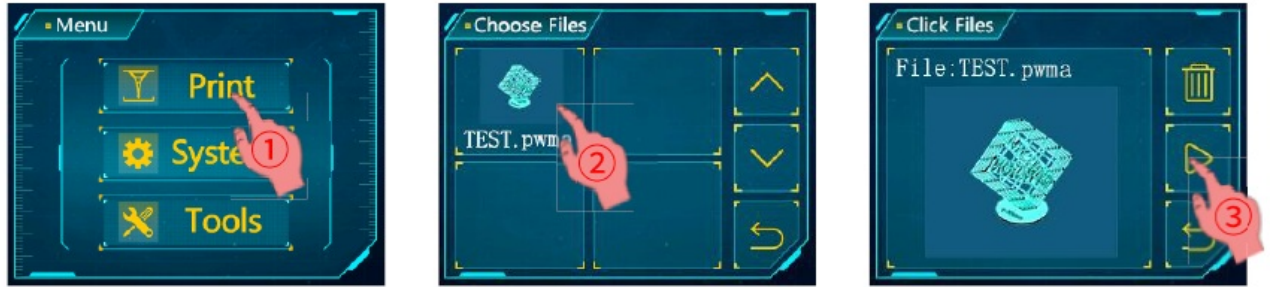
If you think the resin is insufficient to finish an ongoing print (or you want to change the resin), you can click "Pause", the platform will rise, and you can slowly add (or change) the resin. After that, click "Start" to resume.
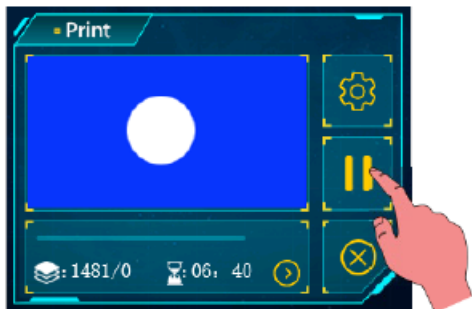
click to pause
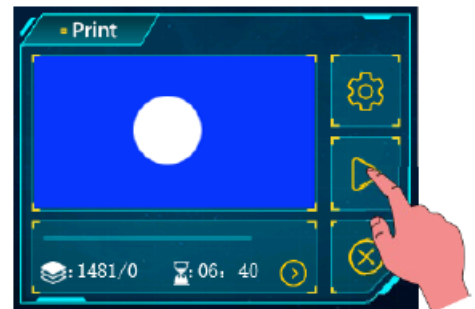
click to start

First Print Instructions

Door detection function

Door detection function is disabled by def a ult. If this function is enabled, the printer can detect whether the cover is on or not. Printing will pause when the cover is removed, and will continue when the cover is put back.
Click " :: " on the "Tools" interface, then click ON/OFF to enable/ disable this function.

Click to switch to "OFF"

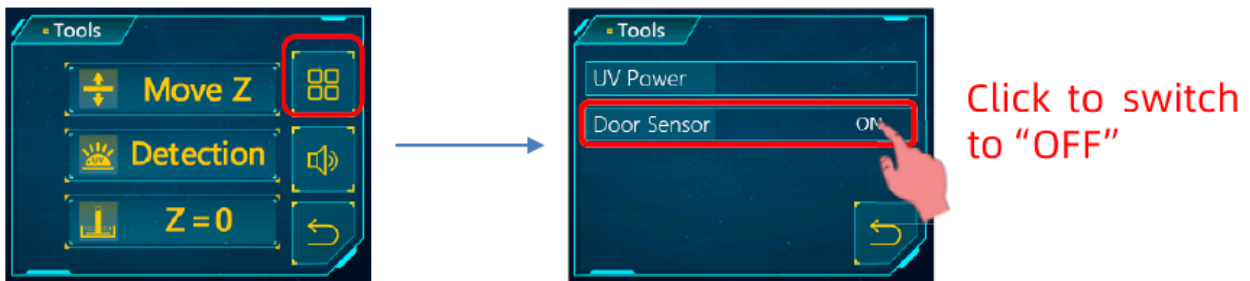## 3. Set UV power

There are two ways to set UV power. Before printing, click "Tools"" setup interface to set UV power.

". Then click "UV power" in the

Besides, in the process of printing, click"[$]" in Print interface, page down to find "UV power". Then click it to set UV power.

Handling models and residues

After printing, unscrew and remove the platform when resin stop dropping from the platform. The model can be removed by scrapper carefully. The removed model should be washed with ethanol 95vol% concentration. The printed object may need post curing to achieve better hardness by direct sunlight or UV-curing box.
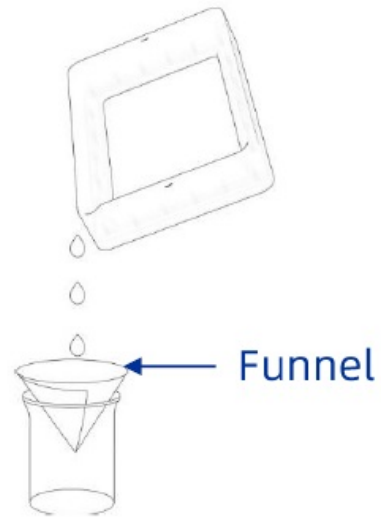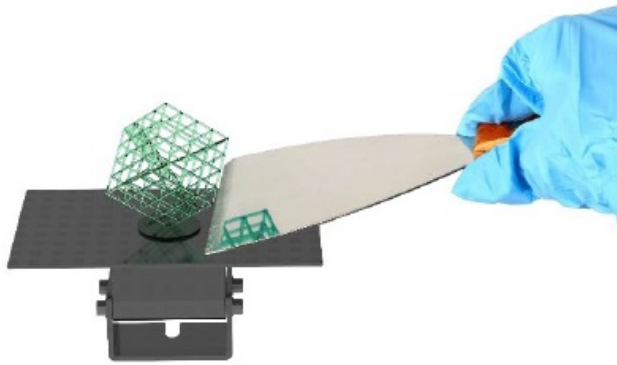
Funnel

[IMPORTANT] Inevitably, in case of incomplete curing or failed prints, there might be some cured resin left in the vat. It is suggested to filter the resin by a funnel and then store the liquid in a sealed container. The residues left on the platform or in the vat can be wiped off with pa per towel.
Before each prints, please ensure there is no solid residues in the vat or on the platform, otherwise the FEP film may be crushed and broken during printing.

Slicing Software Overview

3D printer reads sliced file and prints models. It is necessary to convert 3D files (stl./obj.) into sliced files for machine to recognize. Software that realize the process is called slicing software, for example, Photon Workshop. Photon Workshop can be used to export sliced file. You should select Photon Mono 4K as machine type first, then manipulate the model and set the parameters. Lastly, export the sliced file (.pwma).
The instruction of Photon Workshop has been saved in the USB memory, it is recommended that read it carefully if it is the first time for you to use Photon Workshop.

FAQ and Machine Maintenance

1. FAQ
     1. Model do not stick to platform
          - Bottom exposure time is insufficient, increase the exposure time.
          - Contact area between the model and platform is small, please add raft.
          - Bad leveling.
2. Layer separation or splitting
          - The machine is not stable during printing.
          - FEP film in the vat is not tight enough or it need a change for new one.
          - The printing platform or resin vat is not tightened.
          - Add normal exposure time appropriately.
          - The lift speed is too fast.
          - The printing object is hollowed without punching.
3. Layer shift
     - Add supports.
     - Reduce the lift speed.
4. Floccules left in resin vat

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

Machine maintenance

- If Z axis make noisy sound, please apply lubricant to Z lead screw.

- Clean off the residues cured on FEP film when the printing fail: Set full-screen exposure for 20s and then remove the cured resin sheet to protect the film. Do not use sharp objects to scrape off the residues on FEP film.
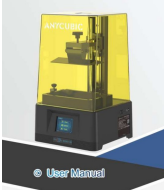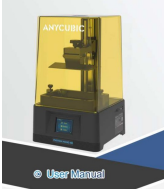
- Be careful when remove the platform, do not let it fall to damage the machine.
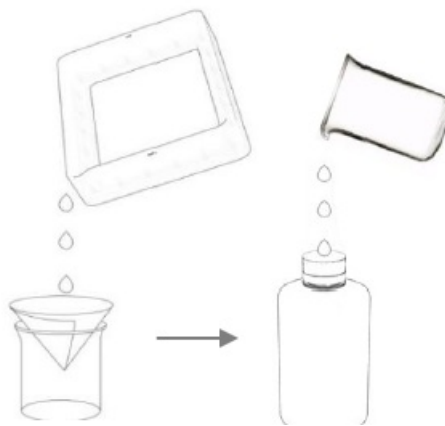
- Do not left resin in resin vat for over two days when it is unused. Please filter and store the resin properly.
- After printing, please clean up the platform (wipe with paper towels or wash with alcohol), and ensure no residue left (filter the residue with funnel).
- If the body of printer is stained with resin, use alcohol to clean.
- Please clean the resin vat first before you change resin.

Documents / Resources

	ANYCUBIC Photon Mono - 4K Resin 3D Printer [pdf] User Manual Photon Mono - 4K, Resin 3D Printer, 3D Printer, Resin Printer, Printer, Photon Mono - 4K
	ANYCUBIC Photon Mono 4K Resin 3D Printer [pdf] User Manual Photon Mono 4K Resin 3D Printer, Photon Mono 4K, Resin 3D Printer, 3D Printer, Printer

References

- **After-sales service**
- **Contact Us | ANYCUBIC 3D Printing**