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

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Photon Mono 4K LCD Resin 3D Printer User Manual



Dear customer,

Thank you for choosing c:Tirk: products.

Maybe you are familiar with 3D printing technology or have purchased CUBK: printers before, but we still highly recommend that you read this manual carefully. The installation techniques and precautions in this manual can help you avoid any unnecessary damage or frustration.

Please visit https://www.anycubic.com/pages/contact-us to contact us if you have any questions. You can also gain more information such as software, videos, and models from the website.



ANYCUBIC support center https://www.anycubic.com/pages/contact-us

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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 first 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 ANYCURIC: 3D printer and contact technical support.



ANYCURIC 3Dprinter 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 ANIYCUI3IC 3D printer and its accessories out of the reach of children.

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



ANYCURIC 3D printer must not be exposed to water or rain.

Operate ANYCUBIC 3D printer with a temperature of 8°C-35°C and humidity of 20%-50%. For optimal performance, do not exceed this range. Also, avoid direct sunlight exposure.



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

Technical Specification

Printing

System Operation Software Connectivity

Specifications

Technique

Light source

Print Speed

Rated power

XY Resolution

Z axis Accuracy

Suggested Layer Thickness

ANYCUBIC Photon Mono 4K 2.8-inch Color TFT Screen ANYCUBIC Photon Workshop USB memory stick

LCD Shadow Masking UV-LED (wavelength 405nm) 3840*2400 (4K) 0.01 mm 0.01-0.15 mm Max 50 mm/h

45 W

Physical Dimensions

Dimension Build volume Materials Net weight

222 mm (L) *227 mm (W) *383 mm (H) 132 mm(L)*80mm(W) *165 mm (H) 405nm UV-resin ~4.25 kg

Recommended Printing Parameters

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

Note

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







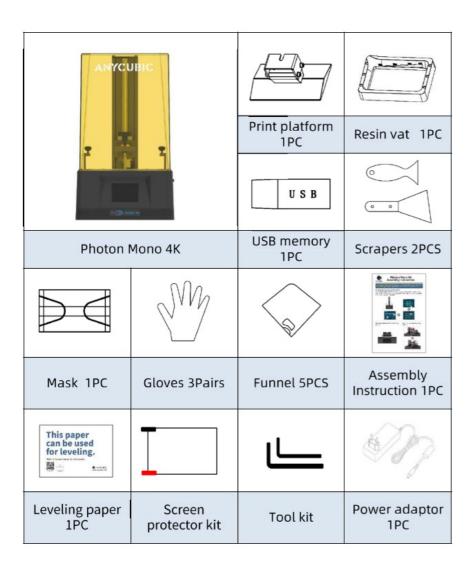






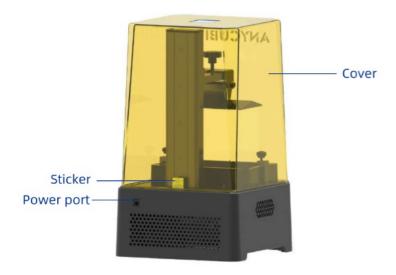


Packing List



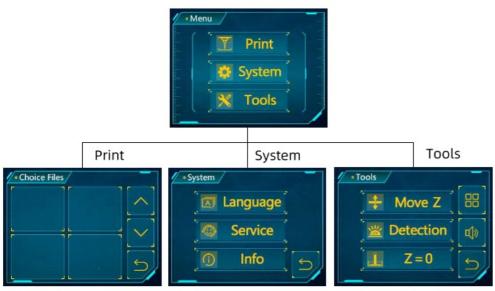
Product Overview



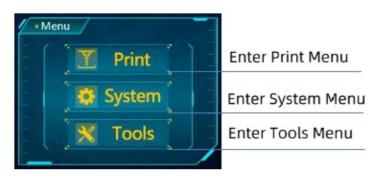


Menu Directory

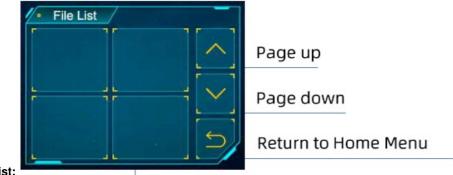




Home menu



Print



File List: Click Files

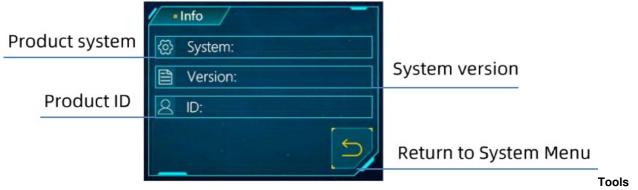


Language: Change language(English/Chinese) Service:

Service:



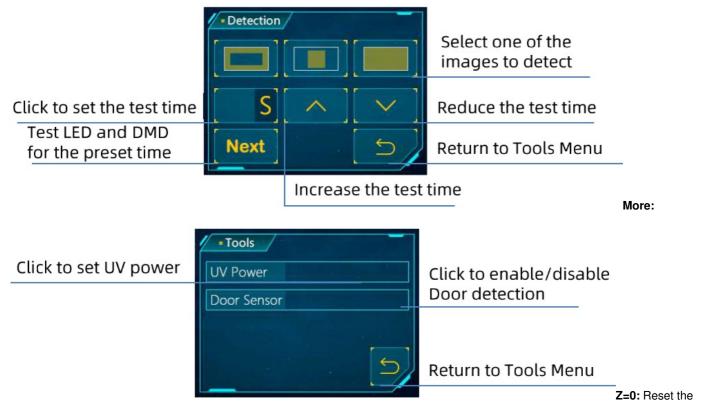
Information:



Move Z:



Detection:



zero point

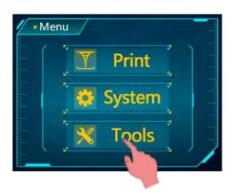
Horn icon: Turn on/off the screen sound

Assembly and Leveling Instructions

1. Unpack the machine and take out the accessories. Then plug in the power cord and turn on the printer.

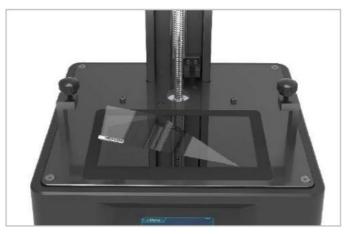


2. Rise the Z axis to a certain height to ensure that the curing screen will not be scratched when the printing platform is installed.

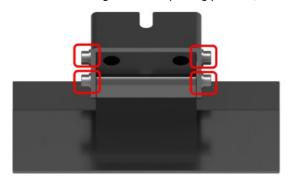




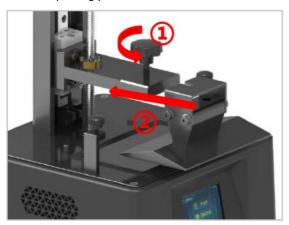


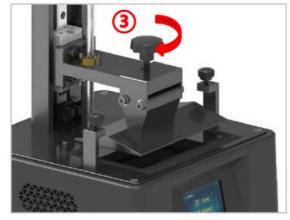


- 3. Tear off the protective film before leveling and printing.
- 4. Peel off the backing film on the printing platform, then loosen the four screws.

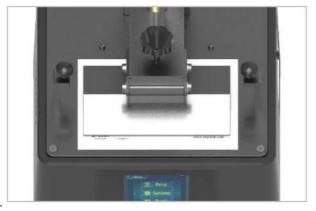


5. Install the printing platform.





6. Place a leveling paper on the curing screen. Then click " 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.



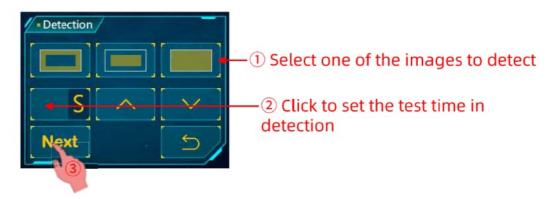
8. Click "Tools"—. "Z=0" on the touch screen, and then click "Enter" on the pop-up window. Till now, the leveling process is finished. Click "Enter" again on the pop-up window and pull out the paper.

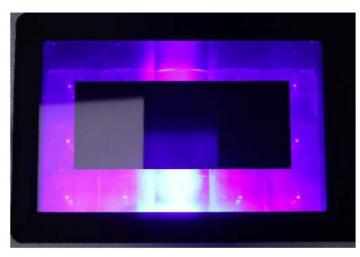






9. Testing UV light: Click "Tools"—, "Detection", select an image and the test time, and then click "Next" on the screen as shown below. It should display a complete image as what you select. Otherwise, the UV light may have some sort of malfunction, please



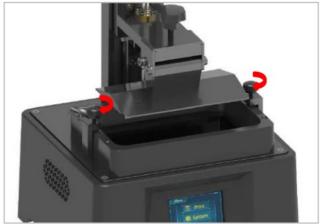


contact tech support.

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

1. Print

Insert the JSB 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, called the "TEST pump" test file and start printing. (The printing time on the coresponding to the printing time of the p

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.)







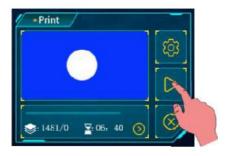




If you think the resin is insufficient to finish an ongoing print (or you want to change the resin), you can click "Pause", the platform will rise, and you can slowly add (or change) the resin. After that, click "Start" to resume.



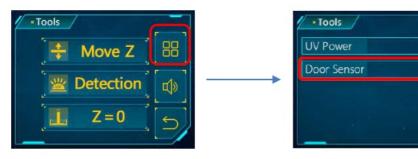
click to pause



click to start

2. The door detection function

is disabled by default. 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



Click to switch to "OFF"

3. Set UV power

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





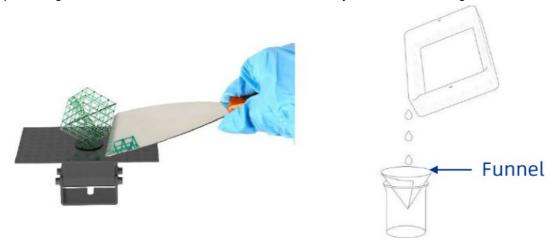
Besides, in the

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



4. 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 an ethanol 95vol% concentration. The printed object may need post-curing to achieve better hardness by direct sunlight or a UV-curing box.



[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 a paper towel. Before each print, please ensure there are no solid residues in the vat or on the platform, otherwise the FEP film may be crushed and broken during printing.

Slicing Software Overview

The 3D printer reads sliced files and prints models. It is necessary to convert 3D files (STL./obj.) into sliced files for the machine to recognize. Software that realizes the process is called slicing software, for example, Photon Workshop.

Photon Workshop can be used to export sliced files. 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 you to use Photon Workshop.

FAQ and Machine Maintenance

FAQ

1. The model does not stick to the 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 needs a change for a 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 the resin vat

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

Machine maintenance



- 1. If the Z axis makes a noisy sound, please apply lubricant to the Z lead screw.
- 2. Clean off the residues cured on FEP film when the printing fails: Set full-screen exposure for the 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.





- 3. Be careful when removing the platform, do not let it fall to damage the machine.
- 4. Do not leave resin in the resin vat for over two days when it is unused. Please filter and store the resin properly.



- 5. After printing, please clean up the platform (wipe with paper towels or wash with alcohol), and ensure no residue is left (filter the residue with a funnel).
- 6. If the body of the printer is stained with resin, use alcohol to clean it.
- $7. \ \,$ Please clean the resin vat first before you change the resin.

Thank you for purchasing Asrmuilic products! Under normal usage and service, the products have a warranty period of up to one year. Please visit AK«:music: support center(suoportanvcubic.com/en) to report any issue with ANUCUBIC products. Our professional aftersale service team would respond within 24 hours and solve the issues.



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References

- After-sales service
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