Phrozen Sonic User Guide

Thank you for purchasing Phrozen products!

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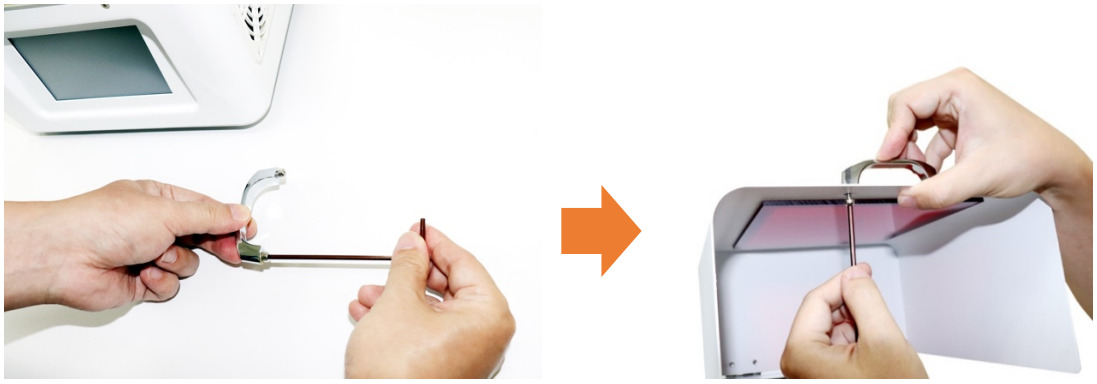
I. CONTENTS

1. Phrozen Sonic LCD 3D Printer (with building platform) * 1 pc
2. Resin Vat with Cover and Preinstalled FEP film
3. Phrozen Printing Toolkits Box
   - 3.1 Funnel * 1 pc
   - 3.2 Ethernet Cable* 1 pc
   - 3.3 Doorknob & Hex Wrench* 1 set
   - 3.4 WiFi USB Dongle* 1 pc
   - 3.5 Plastic Scraper * 1 pc
   - 3.6 Metal Scraper * 1 pc
   - 3.7 AC Power Cord * 1 pc
   - 3.8 Gloves * 1 pair

II. BEFORE YOU START...

1. Assemble the Doorknob

Use the hex wrench to assemble the doorknob on Phrozen Sonic.



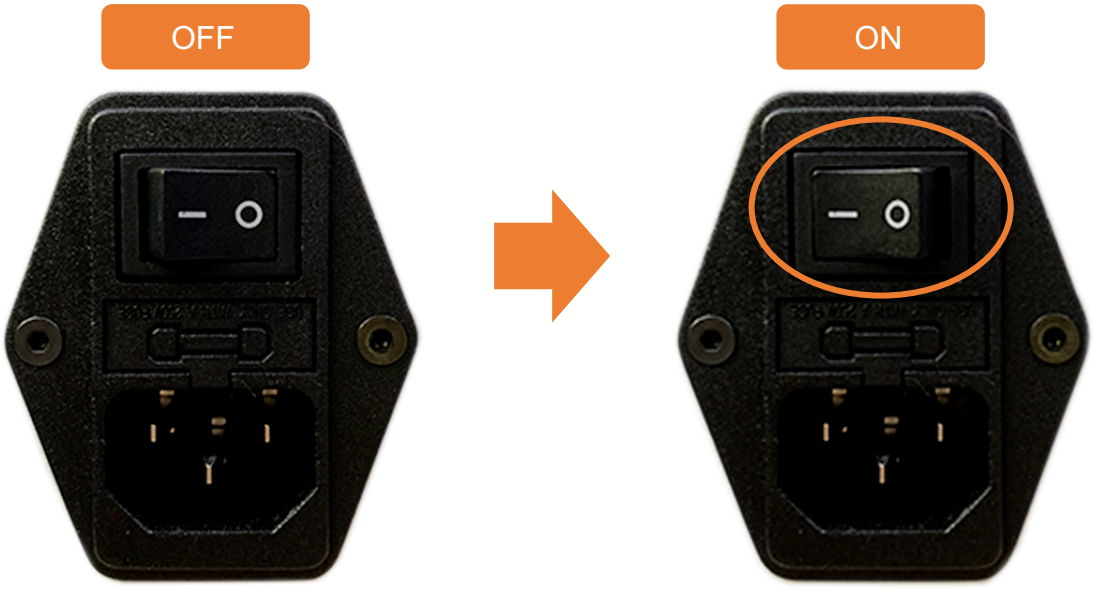
2. Plug-in AC Power Cord

3. Insert WiFi USB Dongle or Ethernet Cable

III. POWER ON/POWER OFF

1. Power On

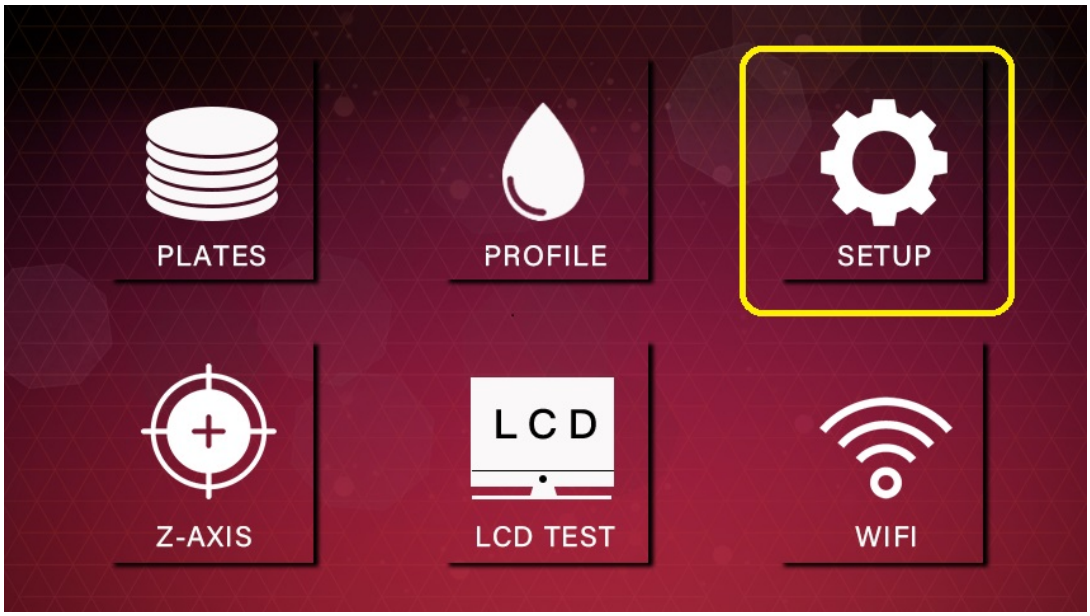
Switch AC power from **OFF** to **ON**.



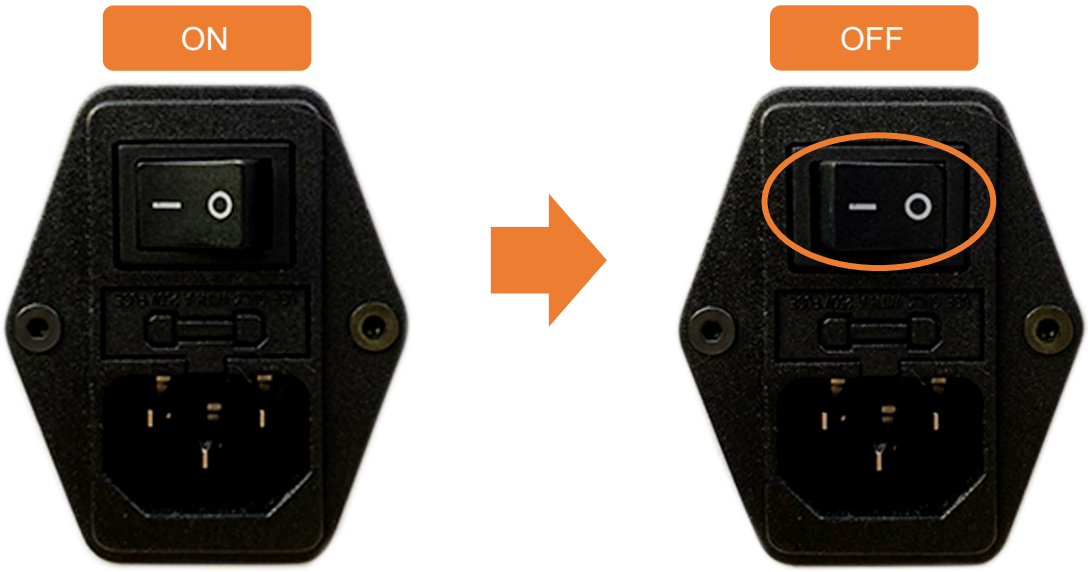
Phrozen OS will be ready in 45 secs.

2. Power Off

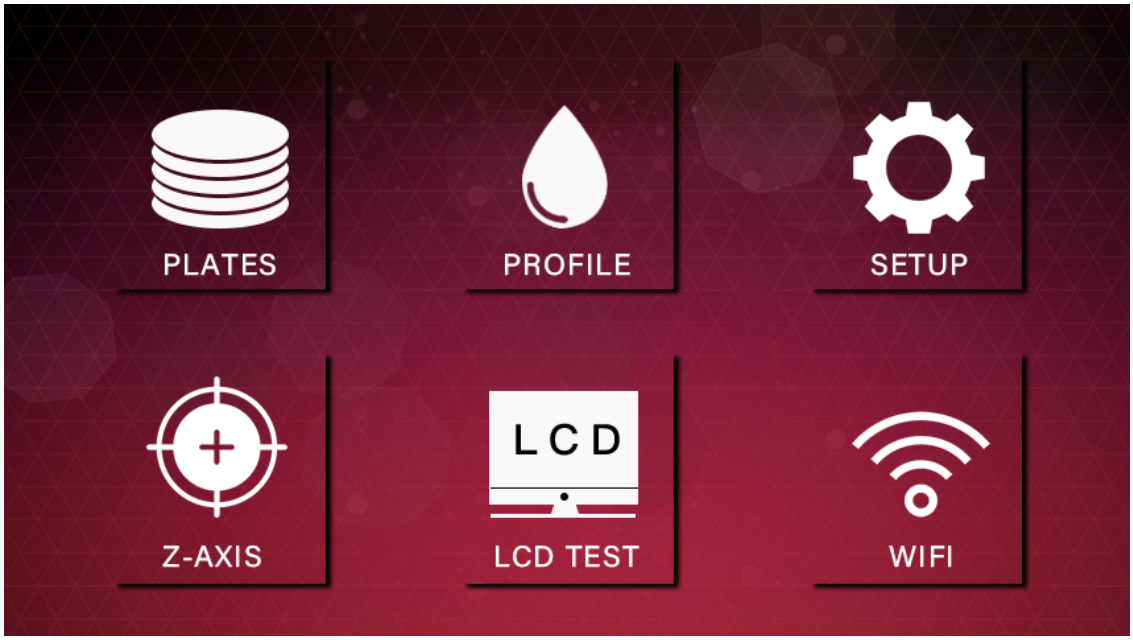
Step 1➔ Click【SETUP】➔ Click【Shutdown】➔Click【✓】.



Step 2➔ Switch AC power from **ON** to **OFF.**



IV. PHROZEN OS FUNCTION



【PLATES】➔To choose your printing file.

【PROFILE】➔To manually adjust the resin profile.

【SETUP】➔Power off, reboot and status checking.

【Z-AXIS】➔Z-axis calibration.

【LCD TEST】➔LCD quality checking.

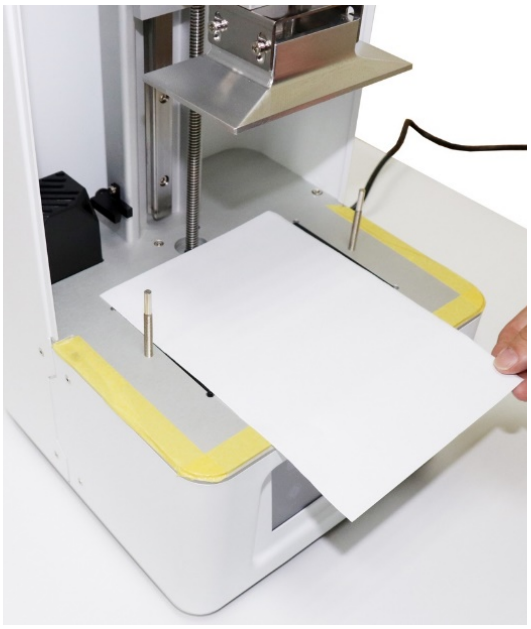
【WIFI】: WiFi setting.

V. CALIBRATION

Z-axis calibration is an essential process to make your 3D prints successfully printed with good quality, please do start your printing process after a proper Z-axis calibration.

Step 1➔ Take off the resin vat and make sure no objects on the LCD.

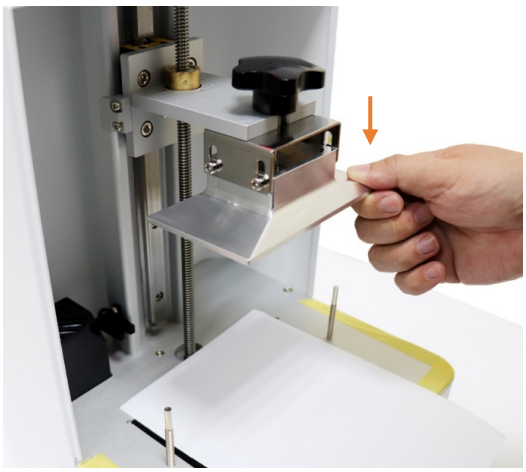
Step 2➔ Put 1 piece of A4 paper on the LCD platform.



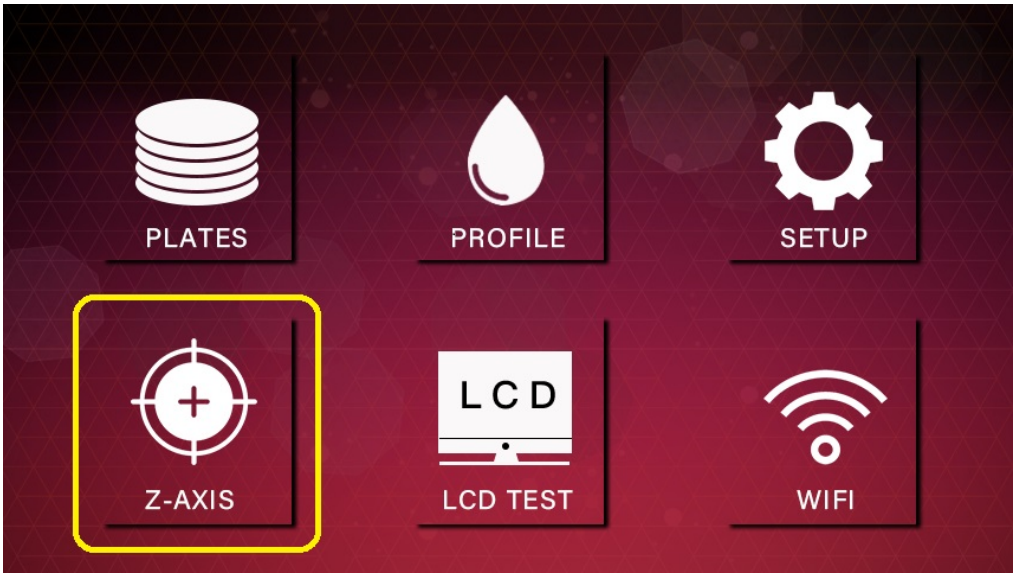
Step 3➔ Loosen 4 screws on both sides of the build platform.

➢ **Tips**

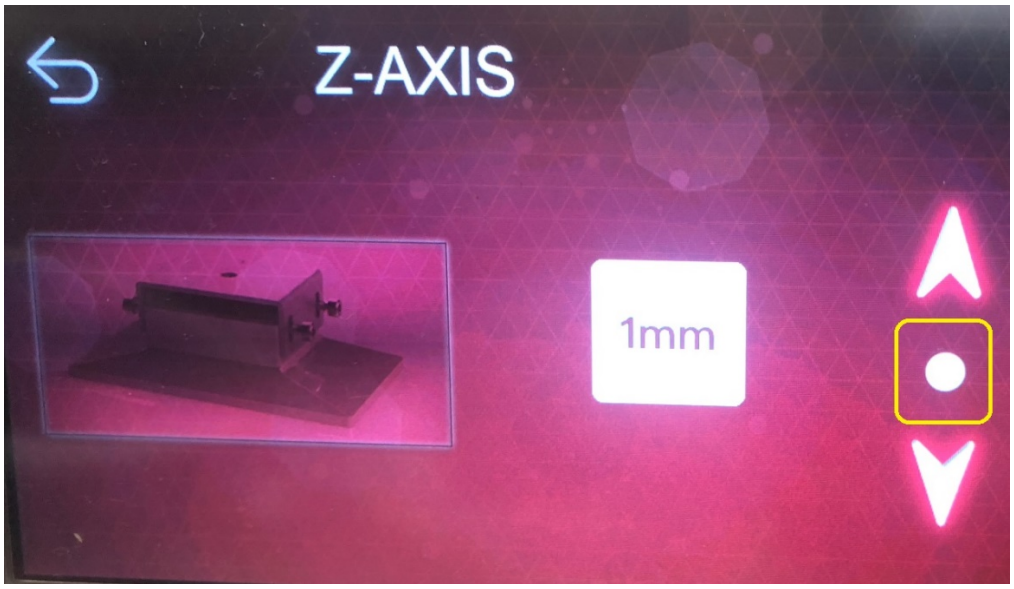
Gently pull the build platform to see if it's moveable and well-loosened.



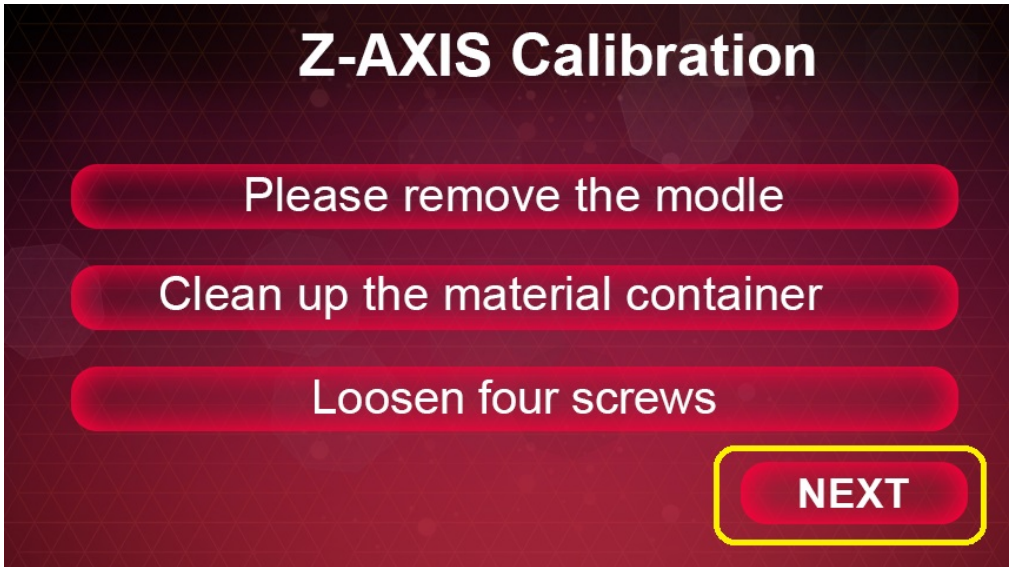
Step 4➔ Click 【Z-AXIS】button to start the calibration process.



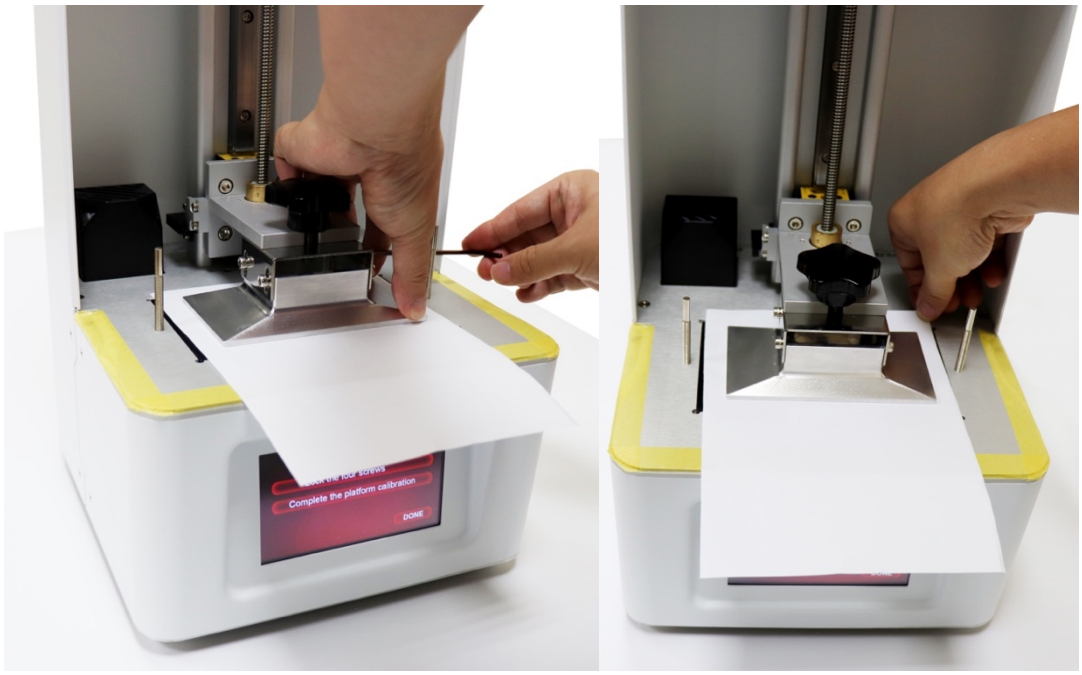
Step 5➔ Click the manual dot icon at the right side.



Step 6➔ Click【NEXT】, kindly wait the build platform down to the BOTTOM.



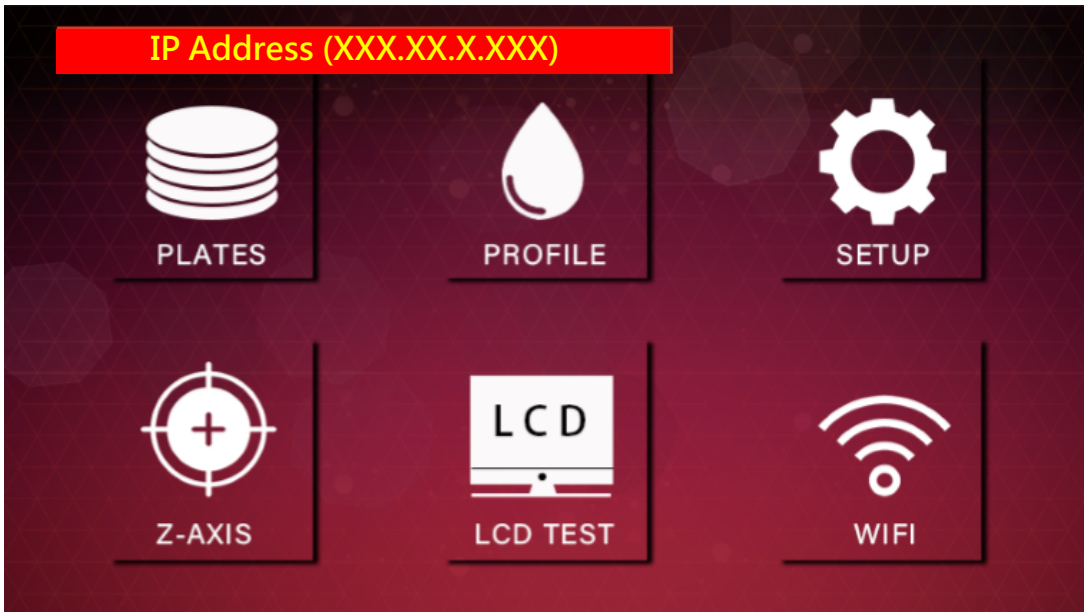
Step 7➔ Tighten the screws with slightly pressing the build platform to make sure the A4 paper is still and IMMOVABLE.



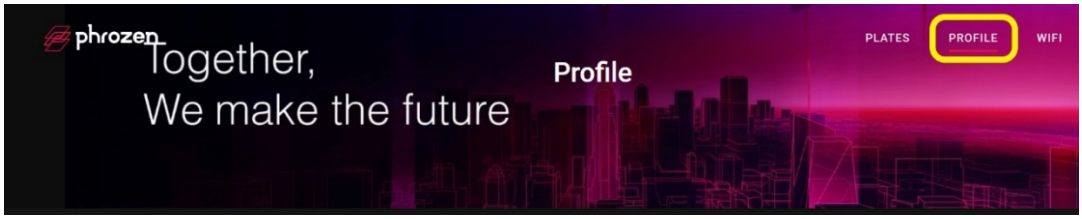
Step 8➔ Click 【DONE】, kindly wait the build platform back to the top.

VI. RESIN PROFILE SETTING

1. Connect your 3D printer to the internet via Ethernet Cable or WiFi.
2. Input the IP address showed at the top of Phrozen OS display on your web browser.

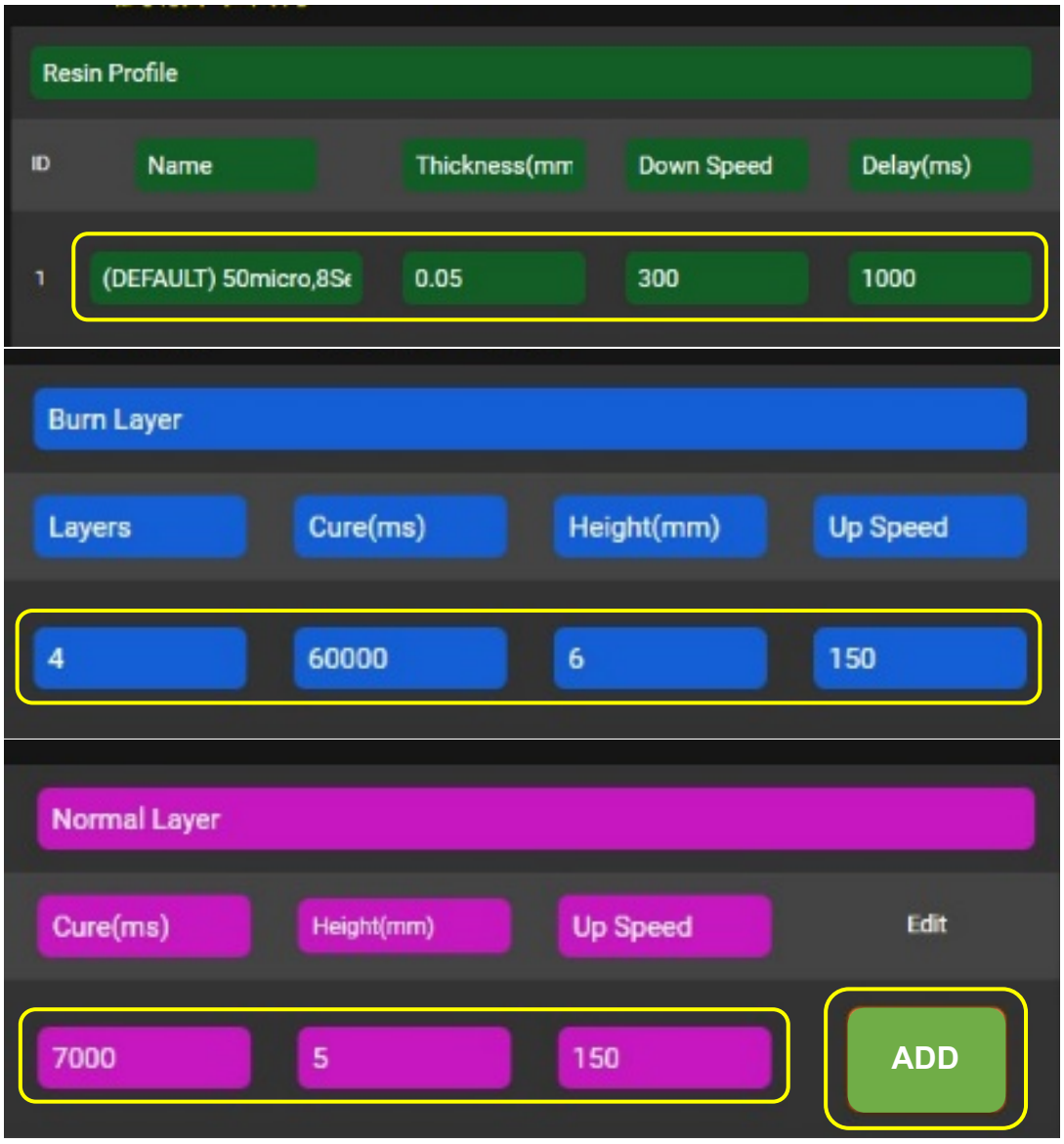


3. Click 【PROFILE】of the navigation bar



4. Add new resin profile by inputting name and profile setting

- **Tip 1** Check Phrozen Resin profiles of all models here!
  - ➔ https://reurl.cc/0zy6Xk
- **Tip 2**
  - ➔ 1 second = 1000 ms
  - ➔ 1 um =0.001 mm
- **Tip 3** Please name your resin profile with **ONLY EN ALPHABET**.



VII. UPLOARD PRINTING FILES

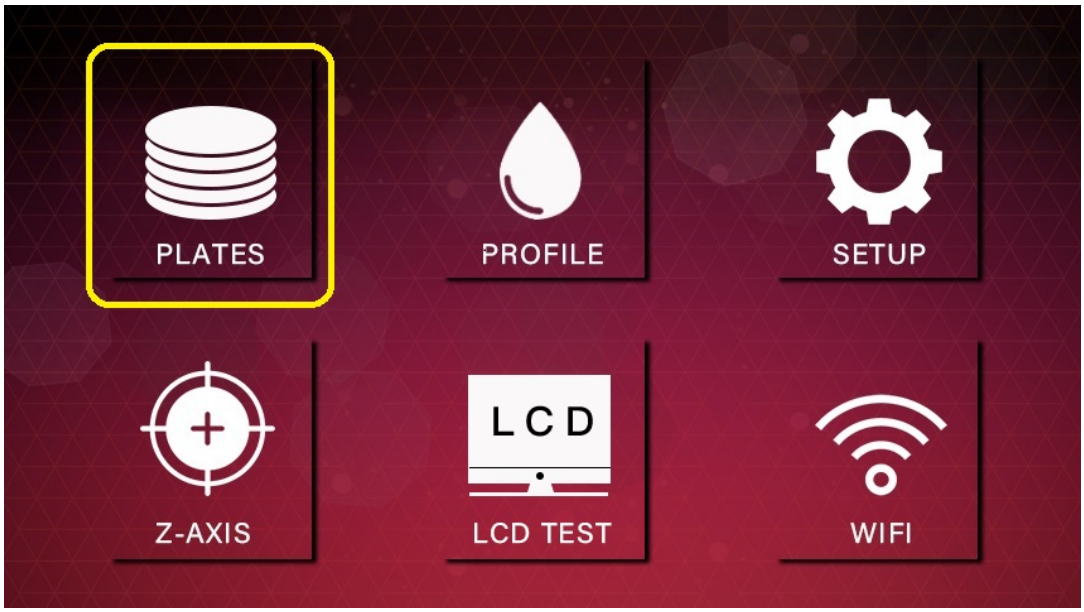
1. Upload Printing Files via USB

Step 1➔ Make sure the printing file in your USB has been sliced to **.phz or .zip** format.

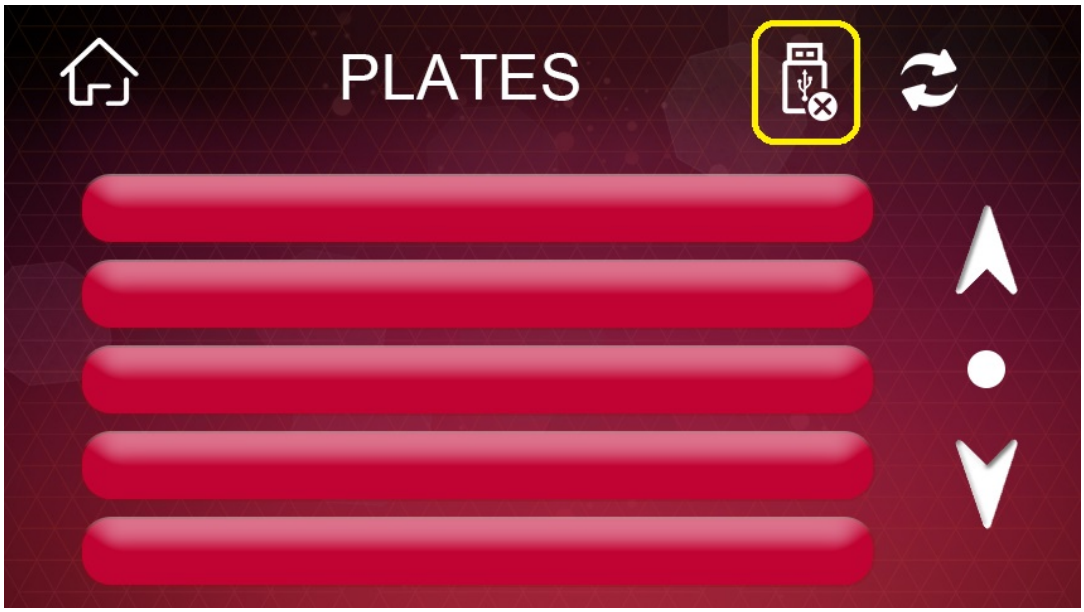
➢ **Tips** Please name your printing file with **ONLY EN ALPHABET**.

Step 2➔ Insert your USB into the socket at the back of the printer.

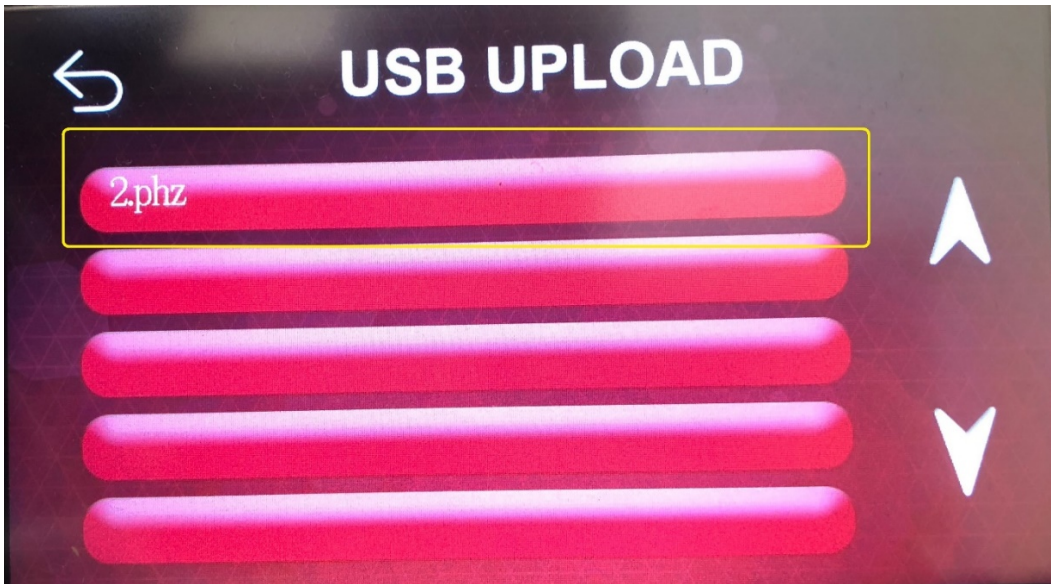
Step 3➔ Click 【PLATES】.



Step 4➔ Click USB icon at the top of the screen.



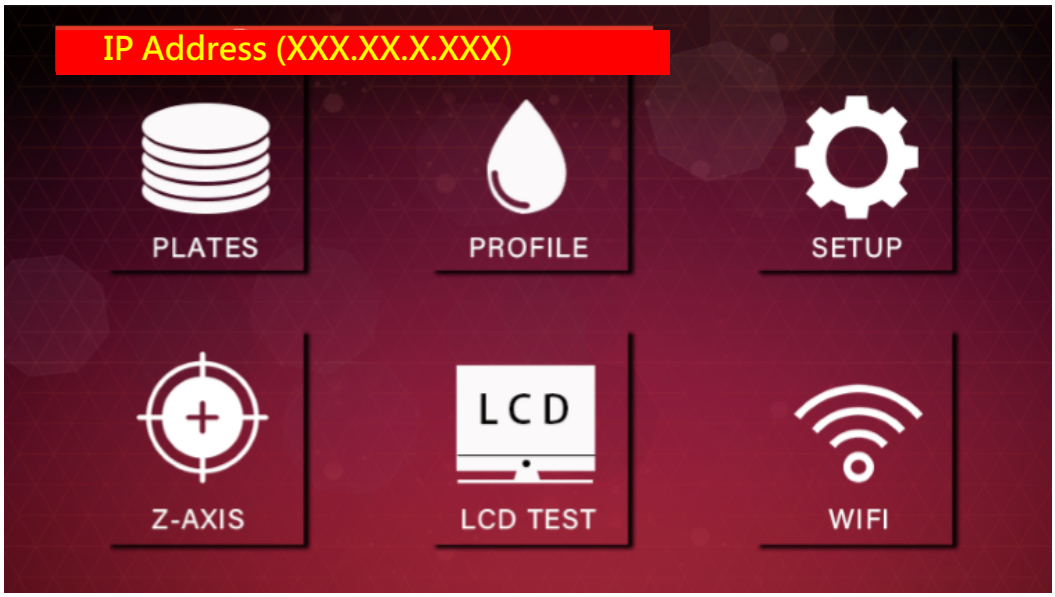
Step 5➔ Choose your printing file to start uploading process.



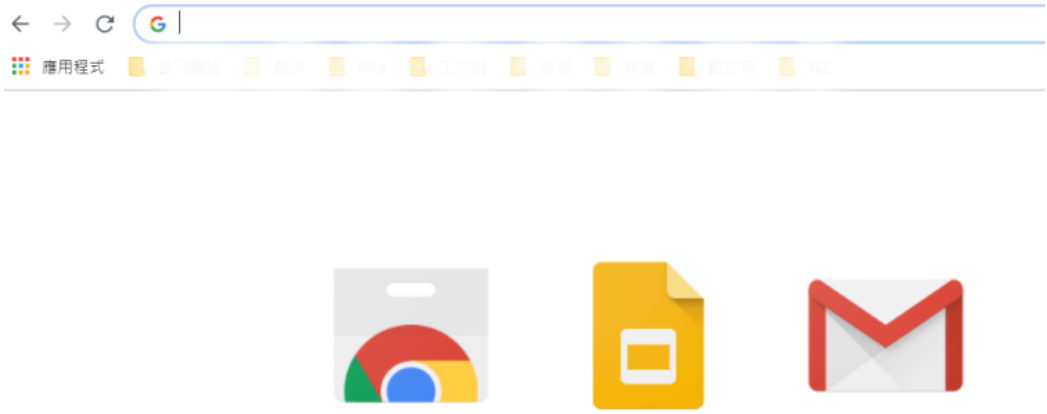
2. **Upload Printing Files via Internet**

Step 1➔ Connect your 3D printer to the internet via Ethernet Cable or WiFi.

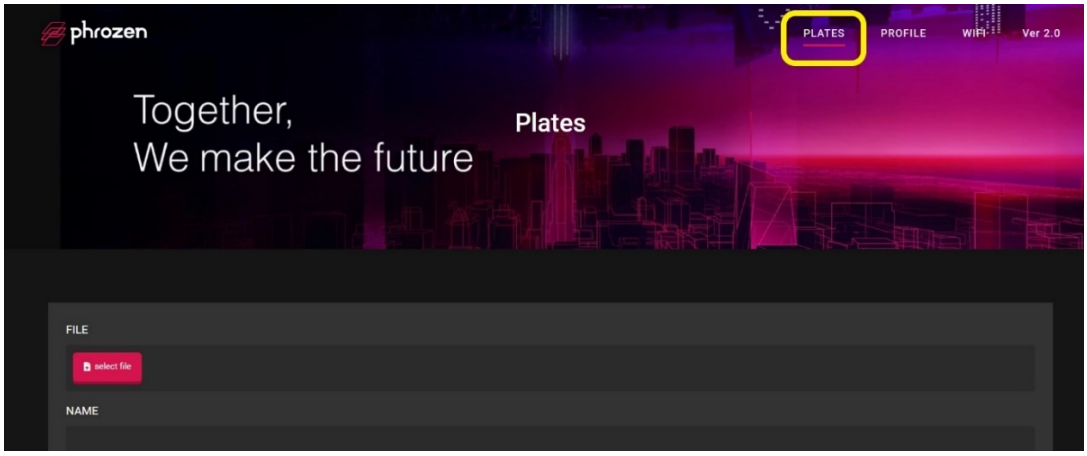
Step 2➔ Input the IP address showed at the top of Phrozen OS display on your web browser.



Input the IP Address showed at touch panel here

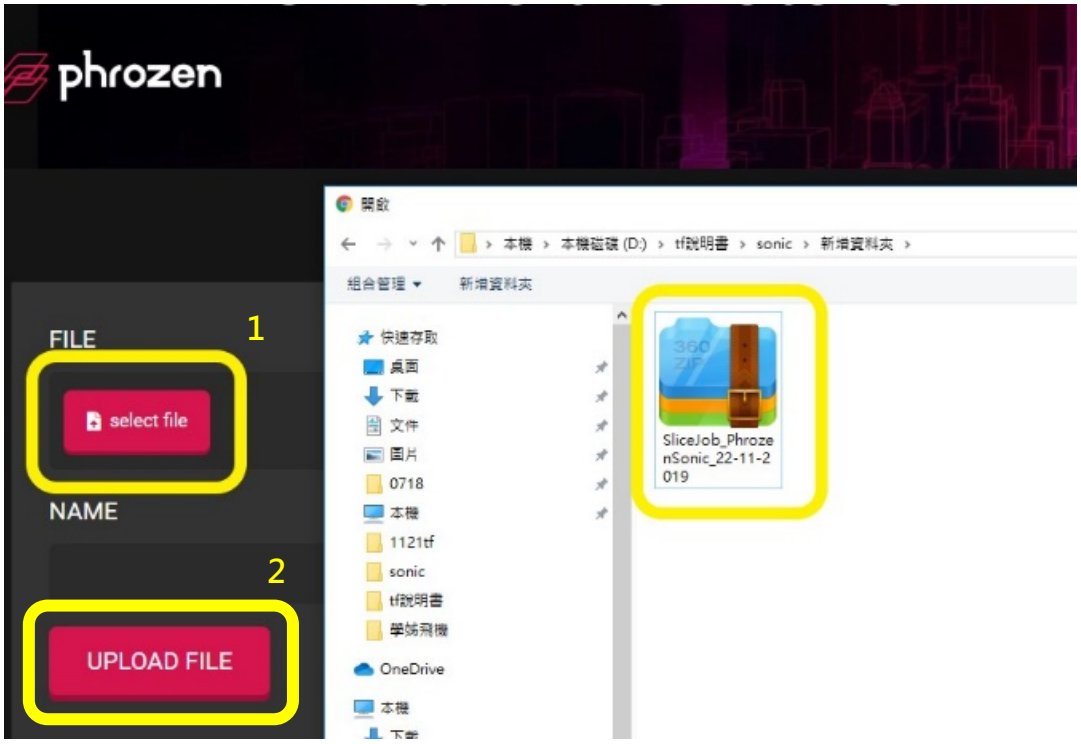


Step 3➔ Click 【PLATES】of the navigation bar.



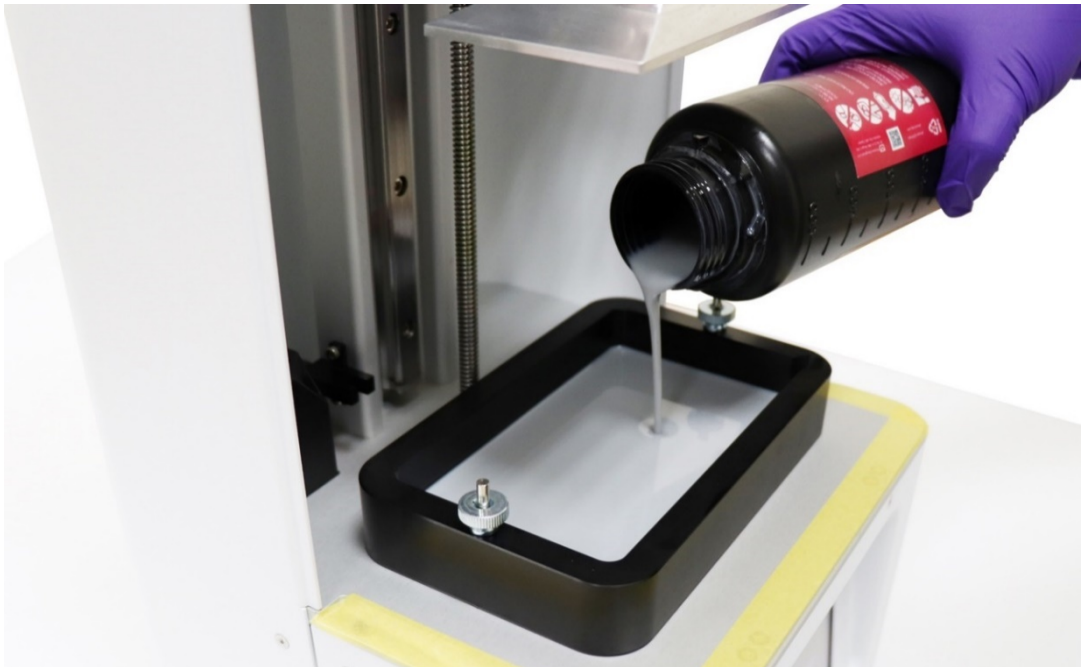
Step 4➔ Select your printing file (.phz or .zip format) and upload it.

➢ **Tips** Please name your printing file with **ONLY EN ALPHABET**.



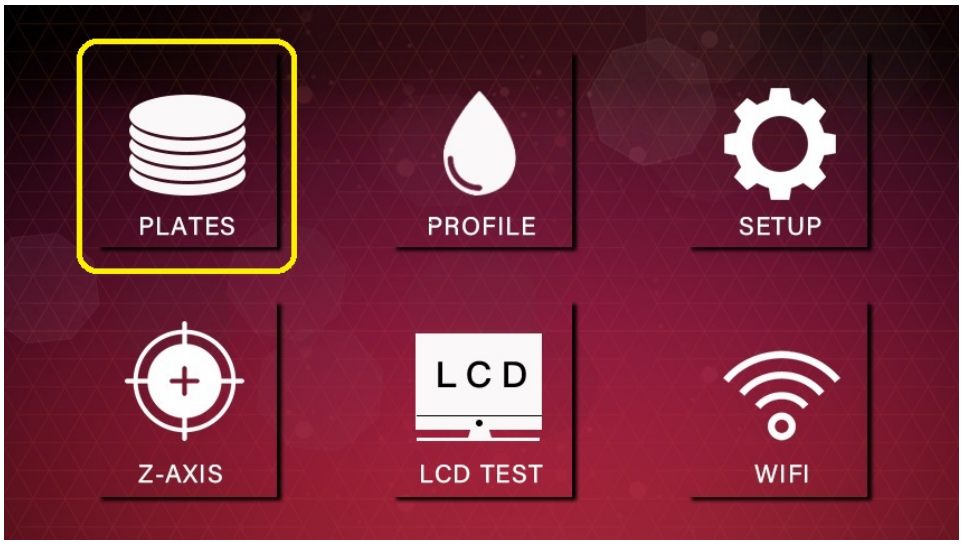
VIII. START TO PRINT

- **Tip 1** Always wear gloves, goggles, long-sleeved clothing during your printing process.
- **Tip 2** Resin is a kind of chemical material, if feeling any uncomfortable during using it or, moreover, accidently eating it, please go to the nearest medical unit asap for further help.
- **Tip 3** Always wash out completely if any contact between resins and your body, furthermore, if feeling any uncomfortable, please go to the nearest medical unit asap for further help.
- **Tip 4 KEEP THE RESIN SAFELY AWAY FROM CHILDREN.**
- **Tip 5** Please shake the resin properly before using it.
- **Tip 6** Kindly keep the resin capacity below 1/2 height of the resin vat.
- **Tip 7** Always stir the vat-stored resin properly before starting your printing process.
- **Tip 8** Make sure there's **NO OBJECT ON THE LCD OR IN RESIN VAT** except resin.
- **Tip 9** Kindly keep your printing environment under 25°C.
- **Tip 10** If refilling resins is required during printing process, please refill the resin during the UV light off with platform raising-up.
- **Tip 11** Always clean the resin immediately if it spills out.



1. **Do Your Printing via Phrozen OS**

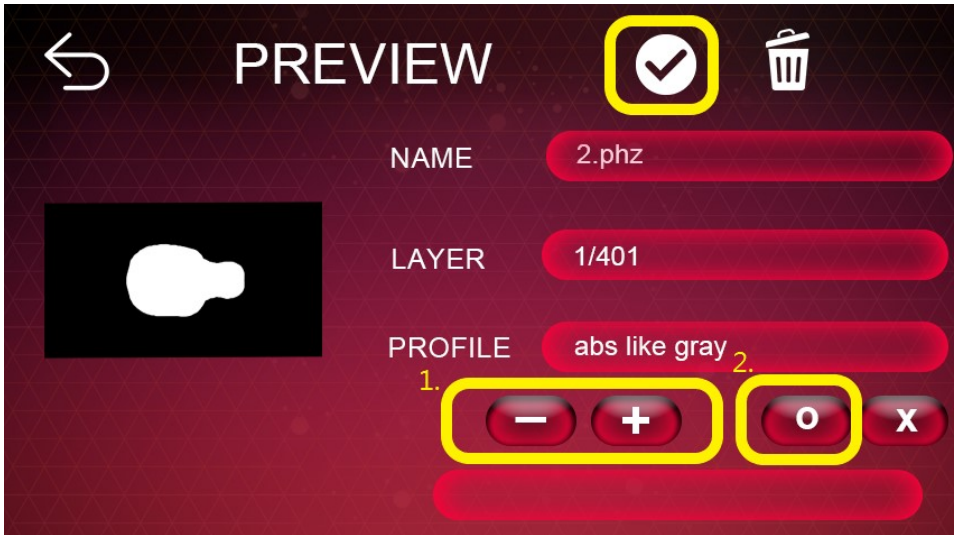
Step 1➔ Click 【PLATES】.



Step 2➔ Choose the file you would like to print.

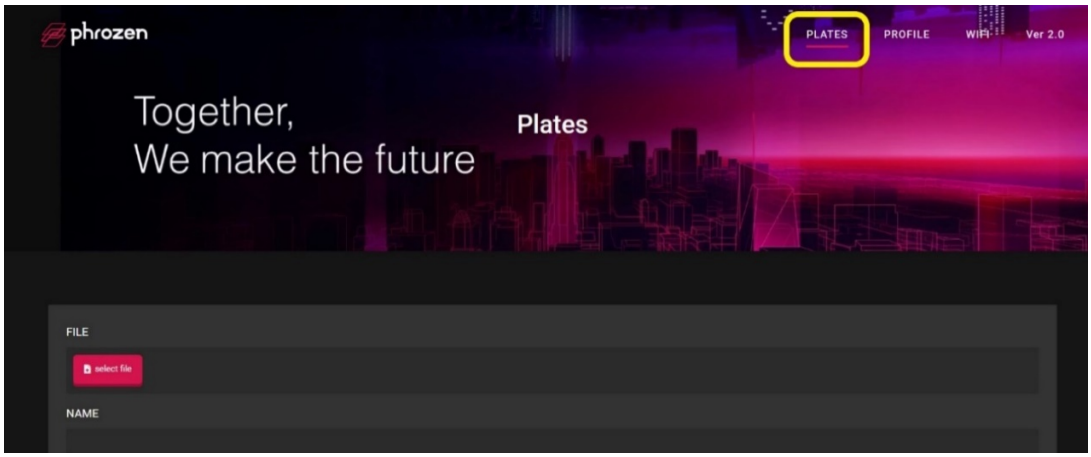
Step 3➔ Check the printing details, NAME, LAYER, PROFILE on 【PREVIEW】 page and click 【✓】to start your printing process.

➢ **Tips** Resin profile can be manually adjusted by +/- and confirmed by **O.**



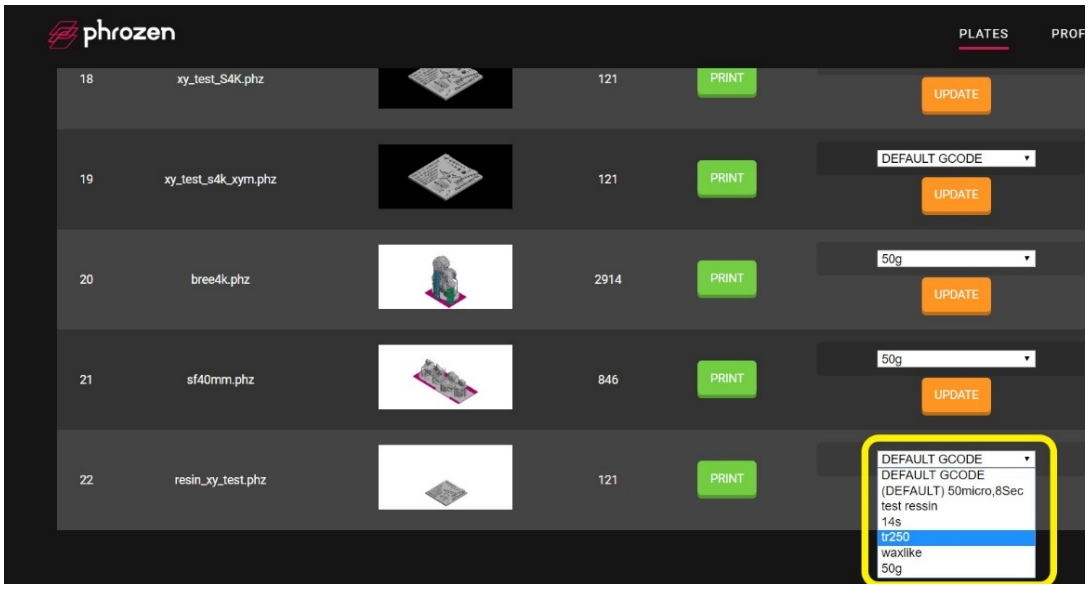
2. Do Your Printing via Internet

Step 1➔ Click 【PLATES】of the navigation bar.



Step 2➔ Select the file you would like to print and click 【PRINT】 to start the printing process.

➢ **Tips** Update your resin profile if there's any changed choice.



IX. AFTER PRINTING PROCESS

PLEASE KINDLY FOLLOW THE ENVIRONMENT PROTECTION RULES IN YOUR LOCAL AREA WHILE YOU DO THE CLEANING PROCESS AFTER PRINTING.

1. Clean Your Prints

Step 1➔ Take off your print slightly from the build platform with metal scraper.

- **Tips** Always wear gloves and be aware of any danger operations with the metal scraper.

Step 2➔ Clean your prints by Phrozen Wash/IPA/95% alcohol until no resin on your print.

- **Tips** Phrozen Wash➔ https://reurl.cc/8lOv0o
- **Tips** Ultra-sonic Clear➔ https://reurl.cc/Gklj43

Step 3➔ Place it until the external surface dry enough.

Step 4➔ Post cure your print by Phrozen Cure/405nm UV light.

- **Tips** Phrozen Cure➔ https://reurl.cc/NaEQQq

2. Tidy Up Your 3D Printer

(a) Safely shutdown your Phrozen 3D printer

- **Tip 1** Please kindly see the description of Ⅲ.2 POWER OFF for more Information.
- **Tip 2 ALWAYS SHUTDOWN YOUR 3D PRINTER FIRST** before you clean the build platform & resin vat for avoiding static electricity damaging your printer.

(b) Clean the build platform

Step 1➔ Take off your print slightly from the build platform with metal scraper.

- **Tips** Always wear gloves and be aware of any danger operations with the metal scraper.

Step 2➔ Clean your build platform by Phrozen Wash/IPA/95% alcohol until no resin on the platform.

(c) Clean the resin vat

Step 3➔ Store your used resin with a whole black, well-sealed bottle in a dark and cool place.

- **Tip 1** Funnel, filter paper and plastic scraper will be the helpful toolkits to store your resins.
- **Tip 2** Always keep new resin and used resin stored in separated container.

Step 4➔ Clean your resin vat by Phrozen Wash/IPA/95% alcohol until no resin on the resin vat.

X. SOFTWARE

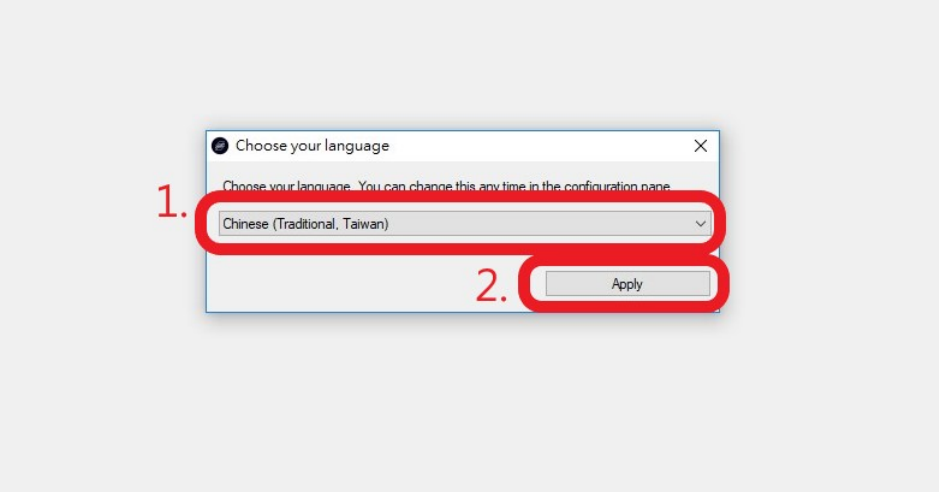
1.Basic setting

(a) Open the software

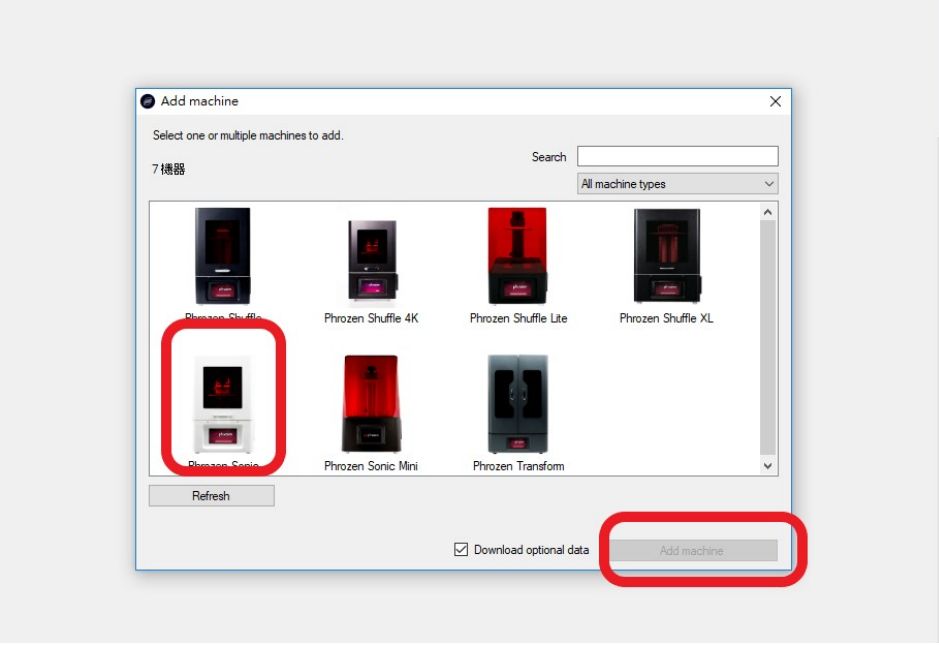
(b) Choose language

Step 1➔ Choose language

Step 2➔ Apply



(C) Machine type

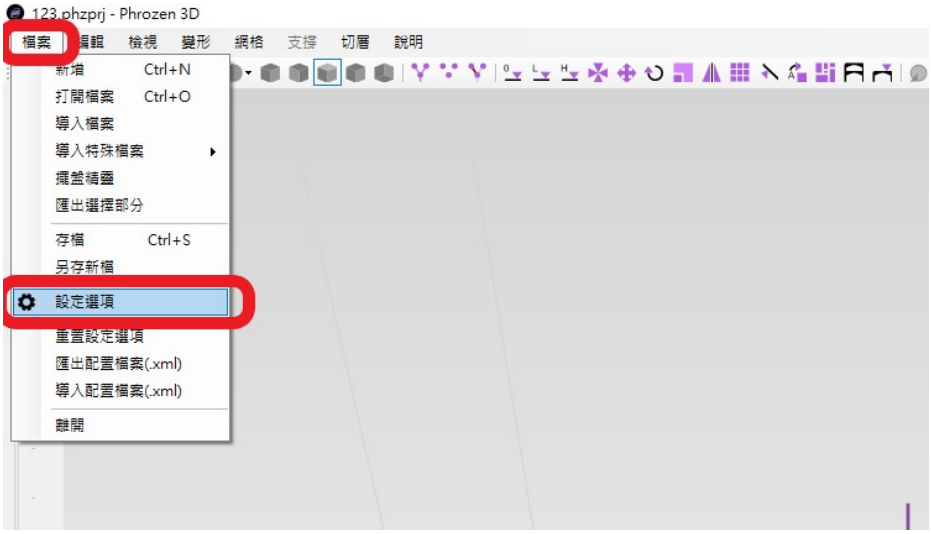


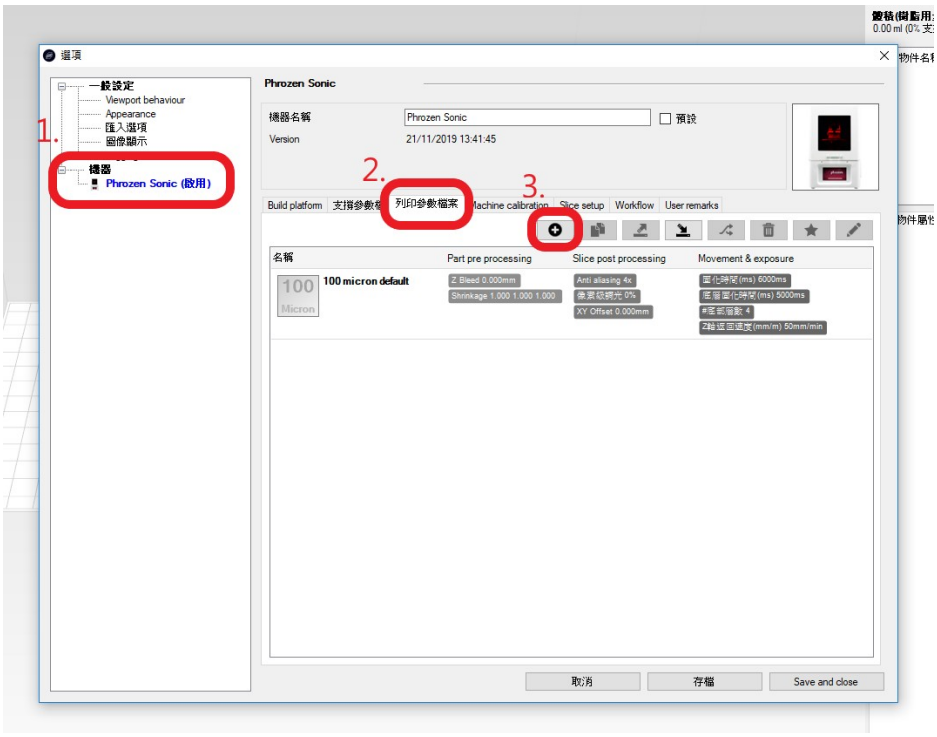
(d) Select layer thickness

Step 1➔ Machine type

Step 2➔ Parameter file

Step 3➔ Click〝⊕〞icon





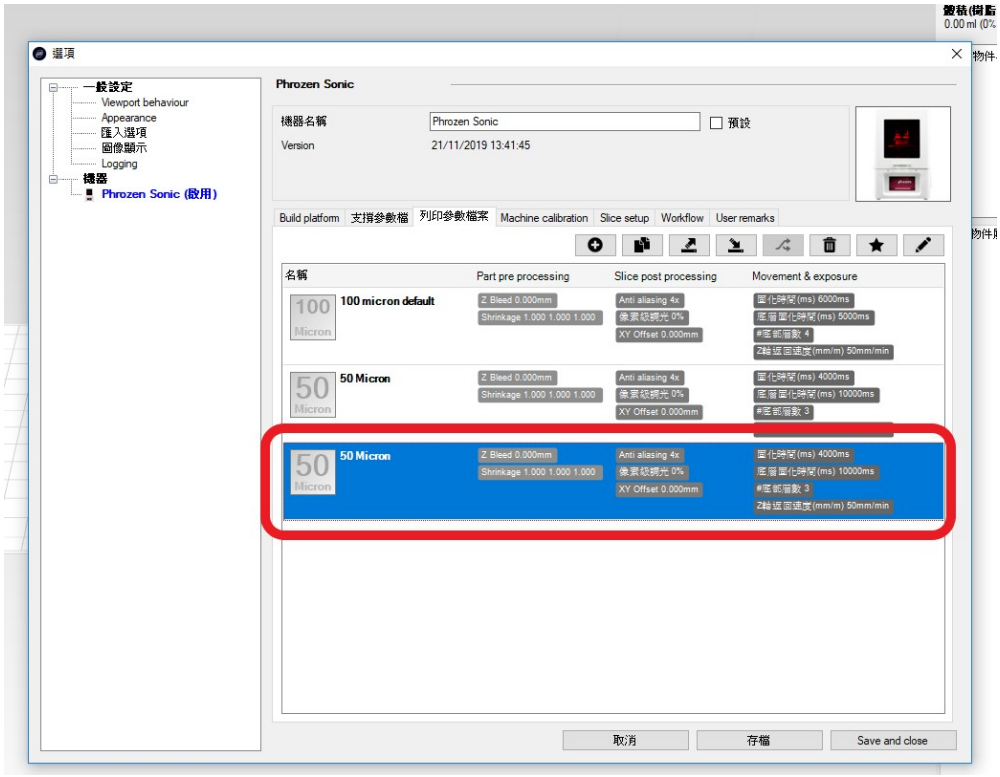
(e) Change parameter file

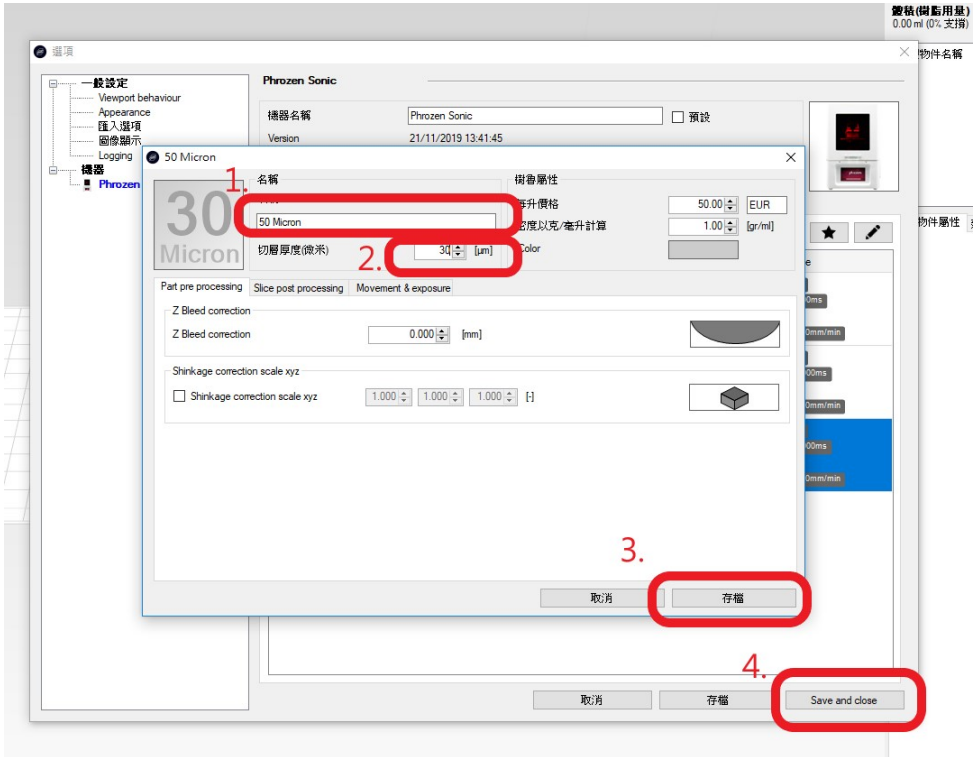
Step 1➔ Change the name of parameter

Step 2➔ Adjust the slice thickness

Step 3➔ Save

Step 4➔ Save again



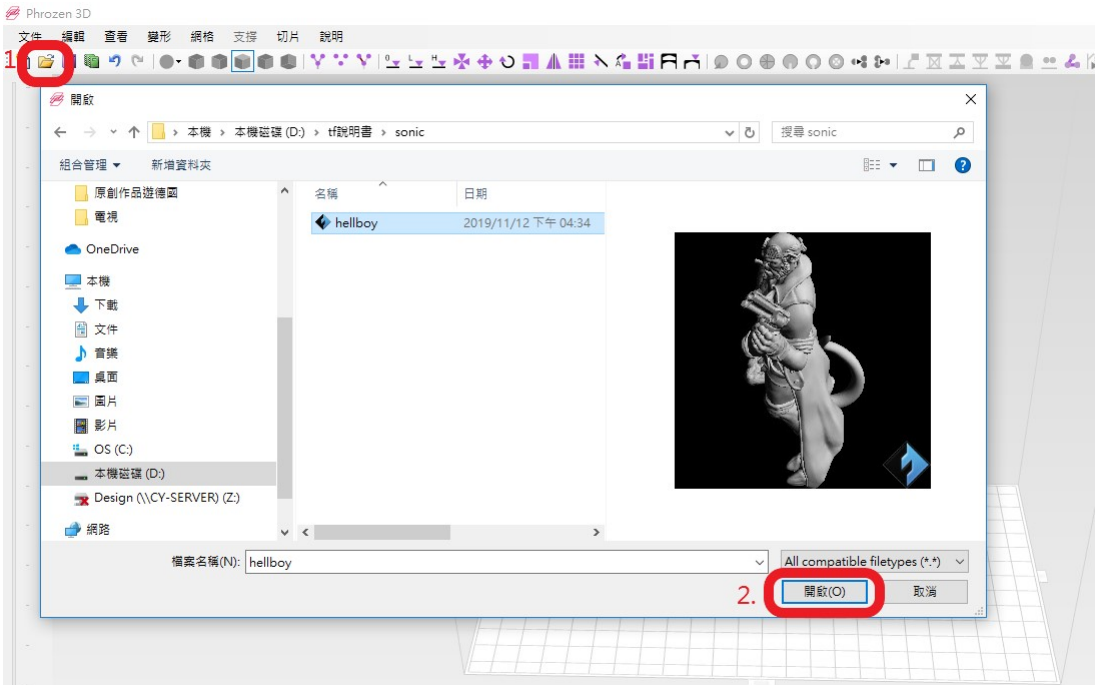


(f)Import file

Step 1➔ Select the upper left file icon

Step 2➔ Choose the file to import

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



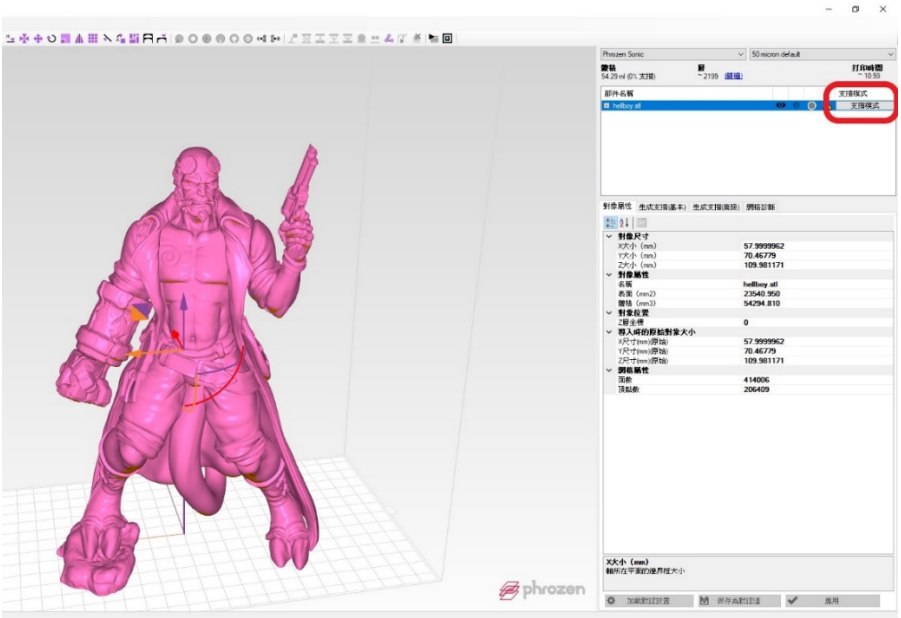
2. Hollow setup

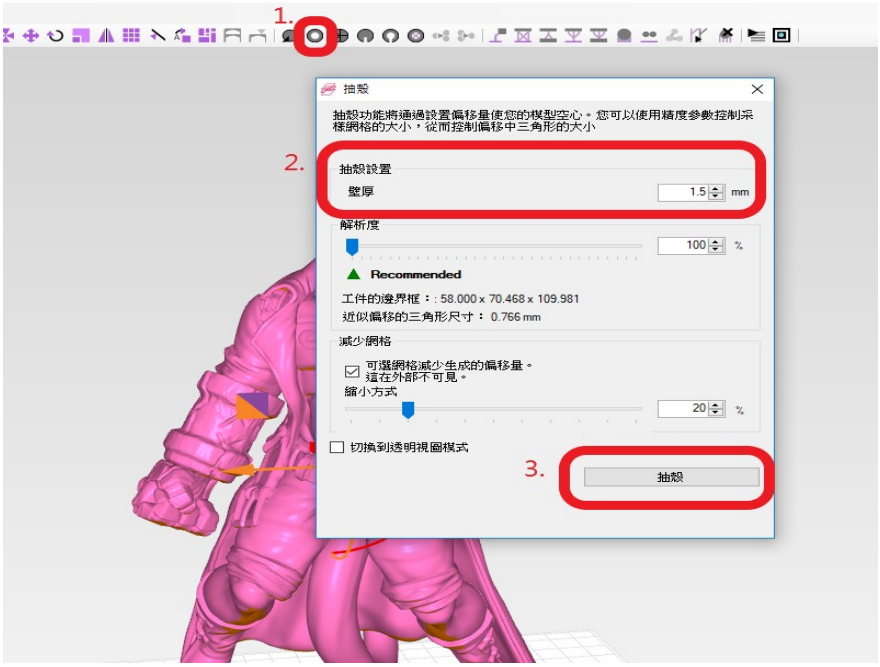
(a) hollow out

Step 1➔ Select the upper right - Support mode

Step 2➔ Adjust the thickness (*advice 1.5mm)

Step 3➔ Hollow out





3. Air out setup

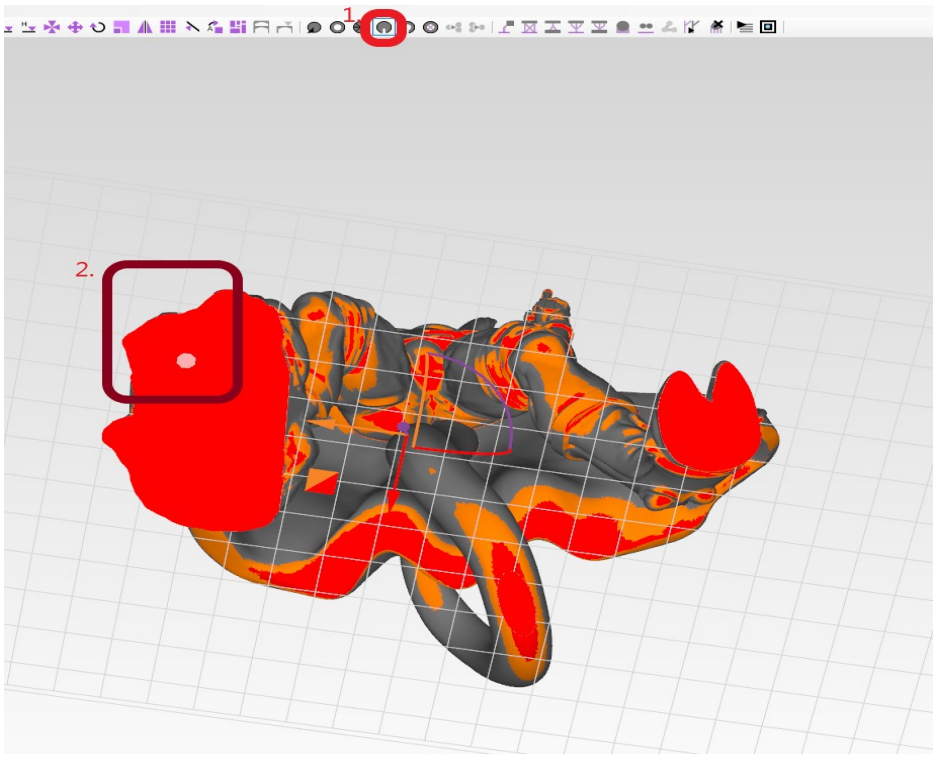
※After hollowing out, make sure air out at least two holes on the bottom of model.

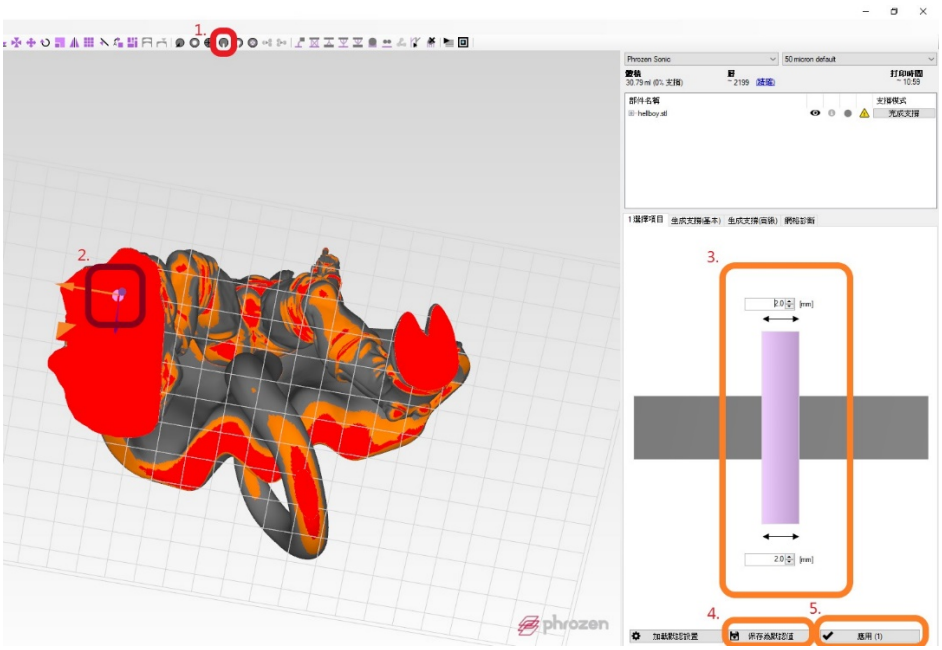
(a) Slice air out —— create a set of pressure relief holes in slice process.

Step1➔ It goes with slice air out mode to adjust the size of holes

Step2➔ Select slice air out image

Step3➔ Click the position where needs to air out with left mouse button


1.
2.

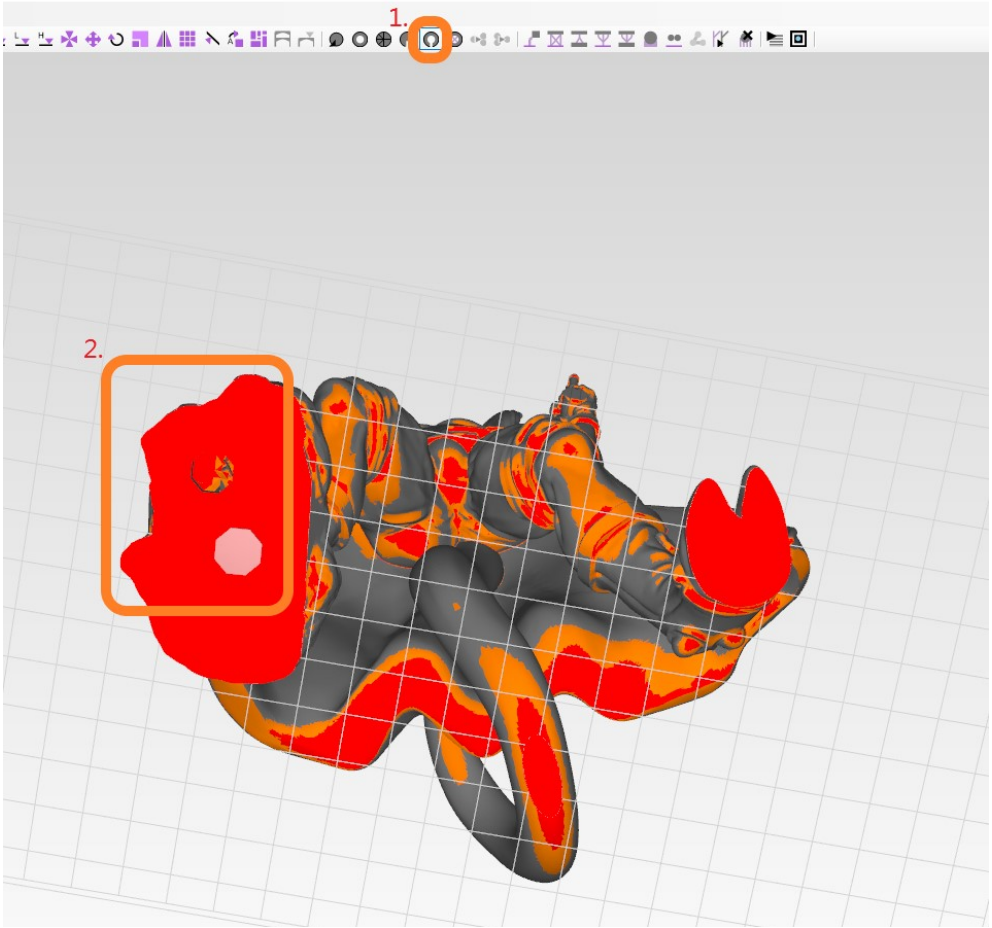

1.
2.
3.
4.
5.
Phrozen Sonic
50 micron default
helboy.stl
phrozen

(b) Actual air out ——create a set of pressure relief holes in a hollow 3D model design.

Step1➔ Select actual air out image

Step2➔ Air out at the bottom of model

Step3➔ It is able to air out continuously, after that select the image to exit the function.



4. Bracket setup

(a) Select the right side of window——generate bracket（Basic）

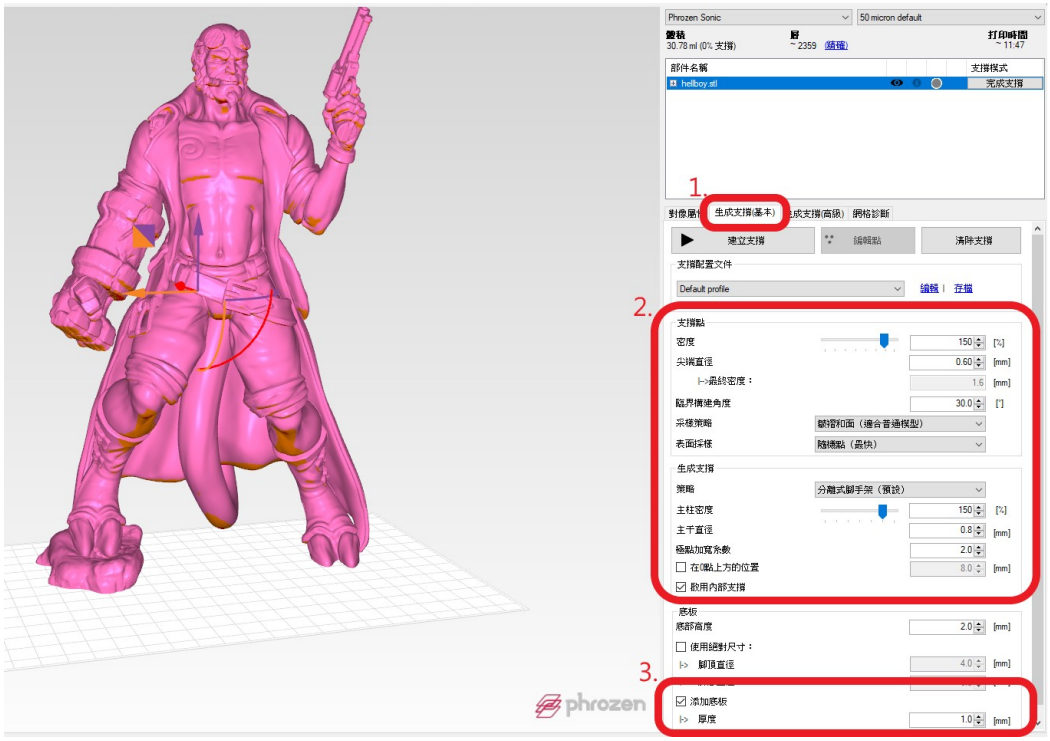
(b)Bracket setup

Step1➔ Density could be 80-175%

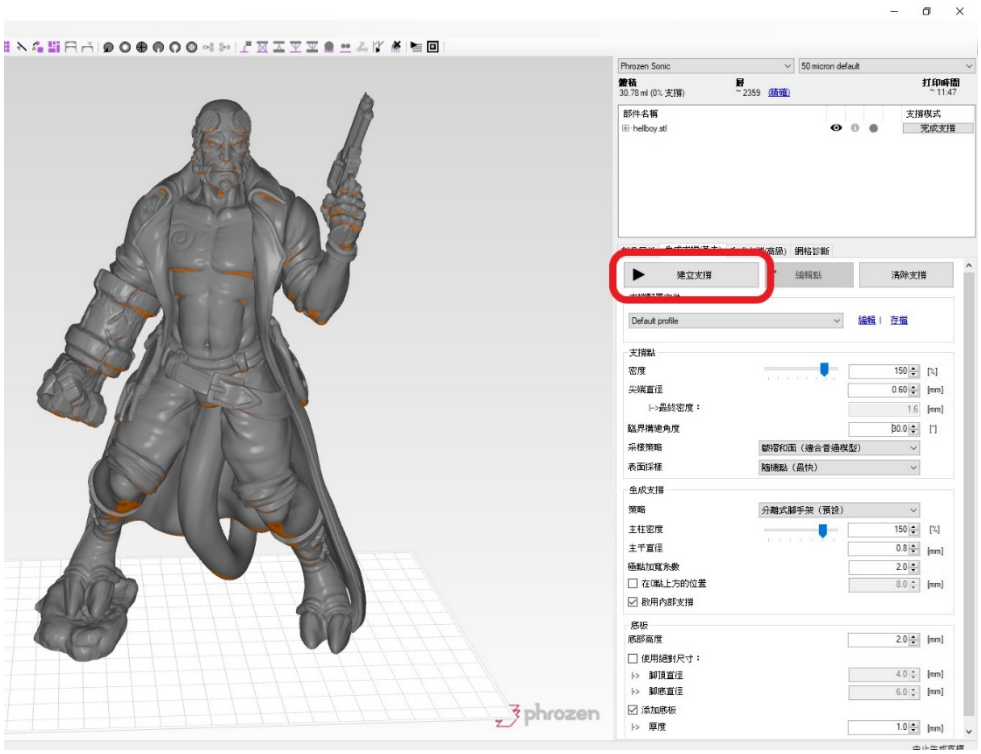
Step2➔ Support tip contact point diameter 0.6mm

Step3➔ Support post pillar diameter 0.8mm

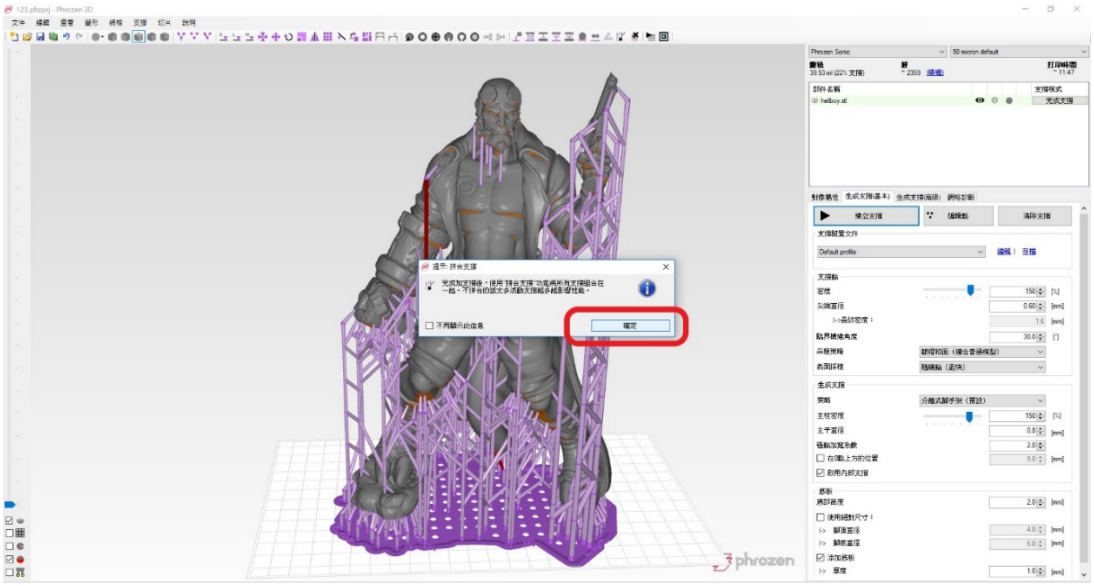
Step4➔ Support base diameter 1mm



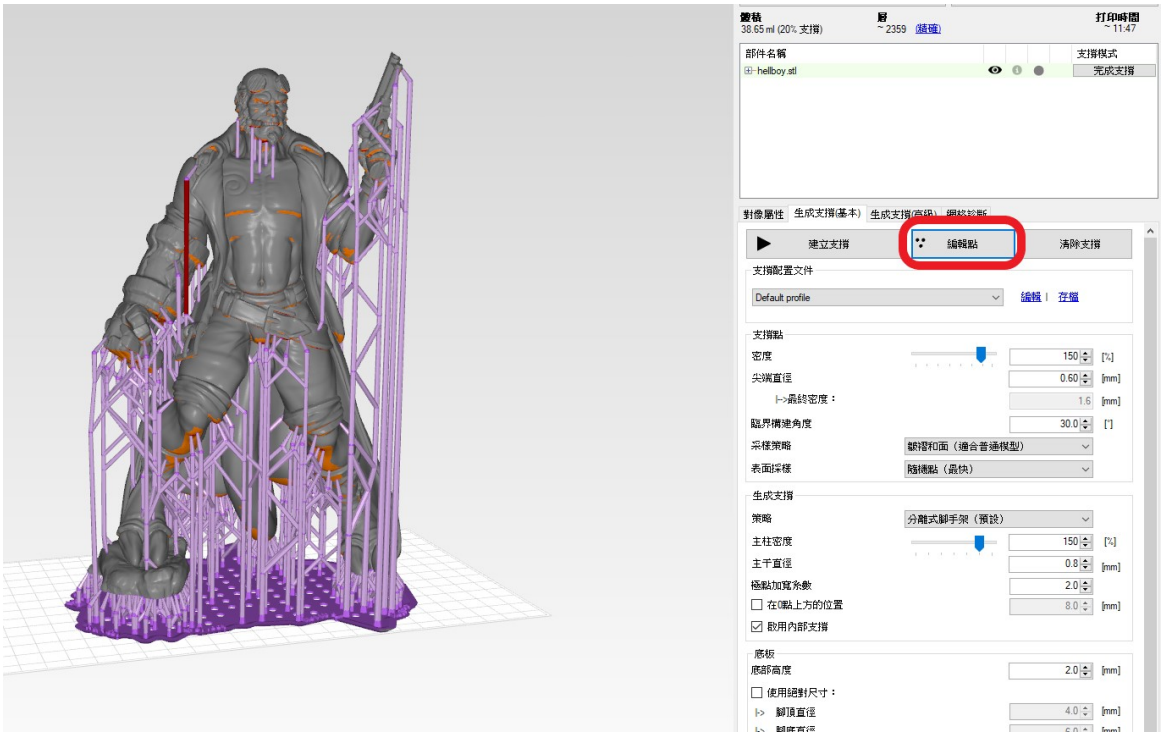
(c)Select create bracket, software would add bracket automatically.



(d) Click『Confirm』



5. Edit bracket

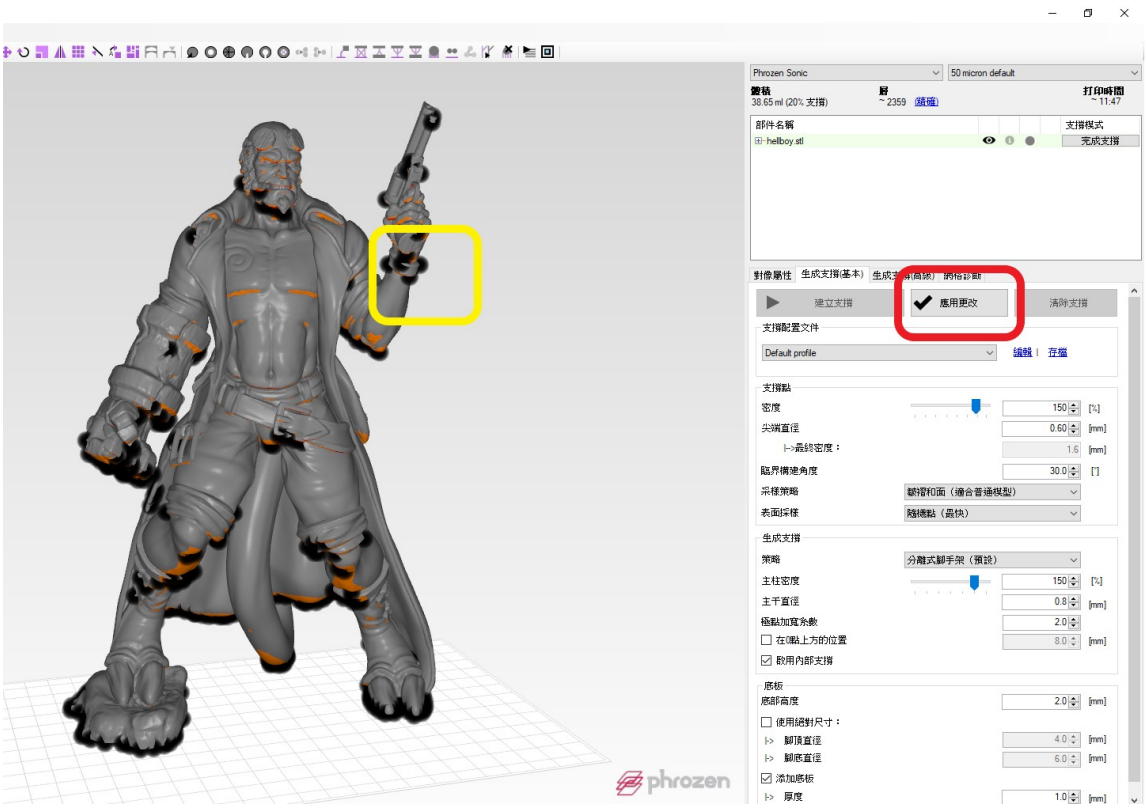


(a)Select——the edit spot

Step1➔ Click the left mouse button on the position where to create bracket, after that it would generate a black spot which is the support tip position

Step2➔ If click the left mouse button on the black spot again, it would clear away

Step3➔ After editing, select —— Apply change

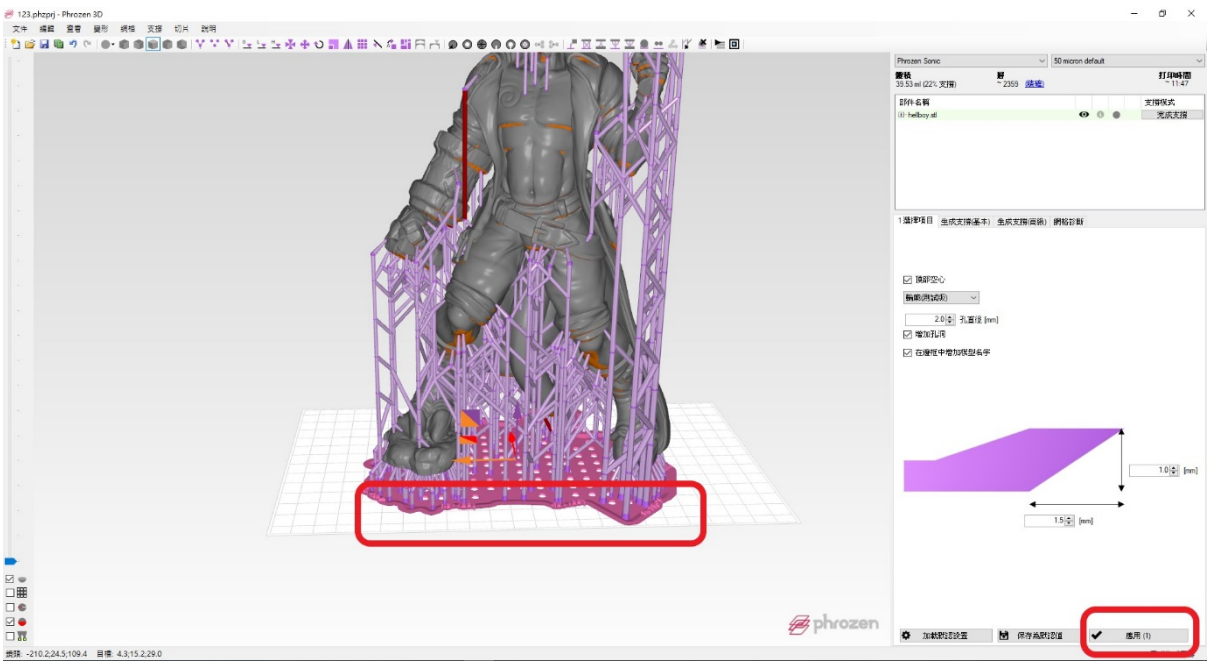


(b) Edit base

Step1➔ If click the left mouse button on the base, it is able to edit the detail setup of base at the right side of window

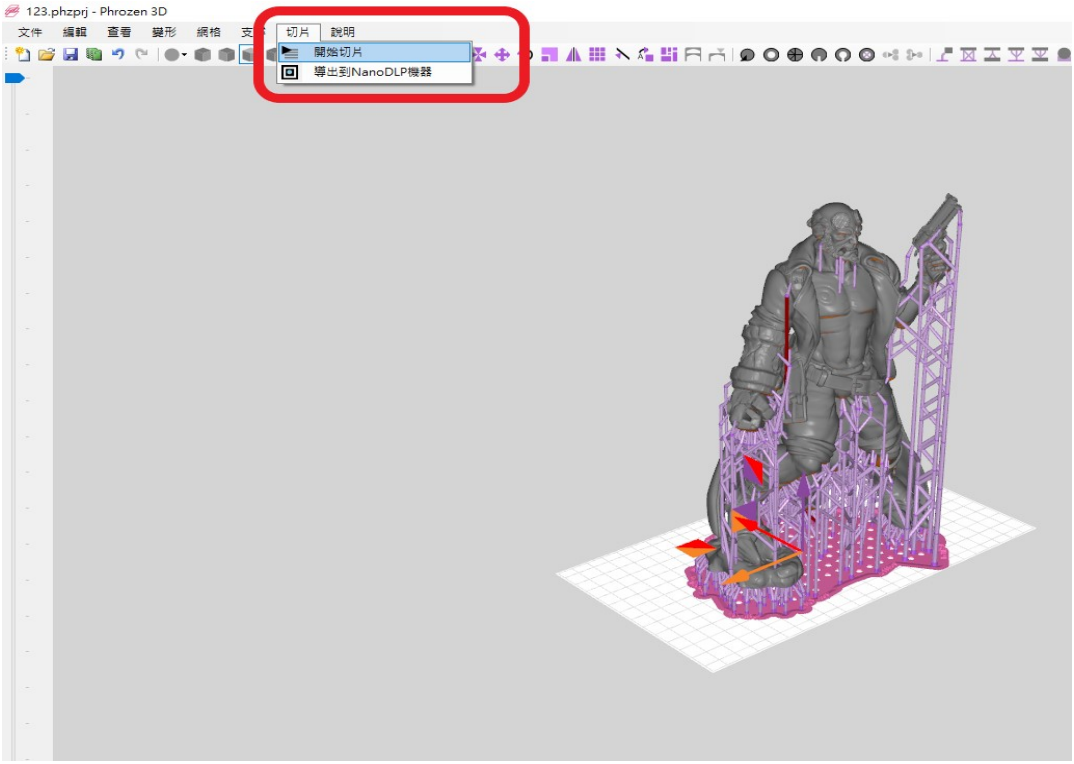
Step2➔ After editing, select『Apply』to complete

Step3➔ After finishing bracket operation, click upper right corner to 『complete』



6. Model slice

Step1➔ Select slice image
Step2➔ Select——start to slice operation



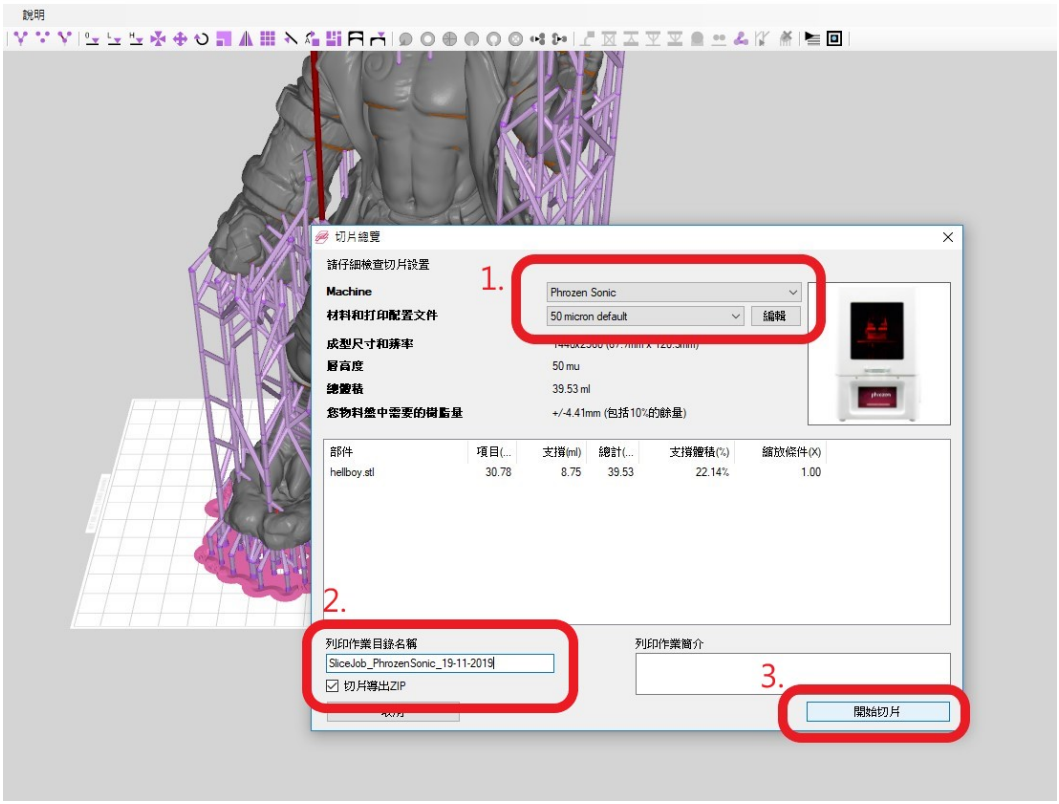
7. Examinate before slice

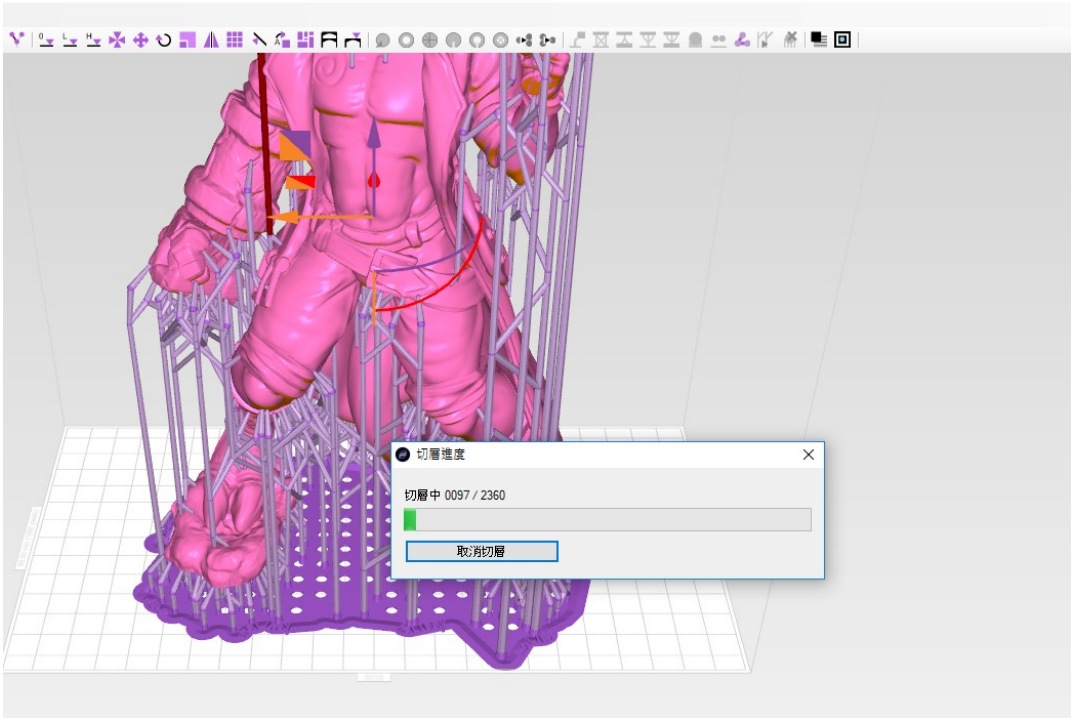
Step1➔ Make sure the type of machine and slice thickness which needs to be the same as resin profile.

Step2➔ Please name your printing file with ONLY EN ALPHABET.

Step3➔【√】 slice to export to ZIP.

Step4➔ Start to slice





※It automatically saves the file after finishing slice. Also, the more layers go, the much time consumes. Please be more patient to it.

8. Information

i. FormWare Phrozen 3D download link:
https://reurl.cc/D1e6ZR

ii. License file of FormWare Phrozen 3D:
Please contact your local agent/distributor for the license file.
If you purchase your Phrozen Sonic on our official website, the license of Phrozen 3D has been sent to your email address listed while purchasing.

iii. Phrozen 3D is our latest slicing software co-developed with Netherlands FormWare, please check the FormWare official website for further introduction. https://www.formware.co/slicer/documentation

XI. CONTACT US

Phrozen Tech Co., Ltd.
+886-3-530-2273 ext. 35 (Tech. Department)
+886-3-540-0076 ext. 15 (Sales Department)
After-sale Service: sales@phrozen3d.com
Online After-sale Service: www.facebook.com/Phrozen3DP
Official Facebook Group:
EN: www.facebook.com/groups/775284745970028
JP: https://www.facebook.com/groups/1364329960379257
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