Lilivis Print

LP-100

User manual



Important Notice

This product may malfunction due to electromagnetic waves caused by portable personal telephones, transceivers, radio-controlled toys, etc. Be sure to avoid having the above objects, which affect the normal operation of the product, brought near the product.

The information in this publication has been carefully checked and is believed to be entirely accurate at the time of publication. HUVITZ assumes no responsibility, however, for possible errors or omissions, or for any consequences resulting from the use of the information contained herein.

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CE

9000ENG0122-B
29.03.2024

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1

Introduction

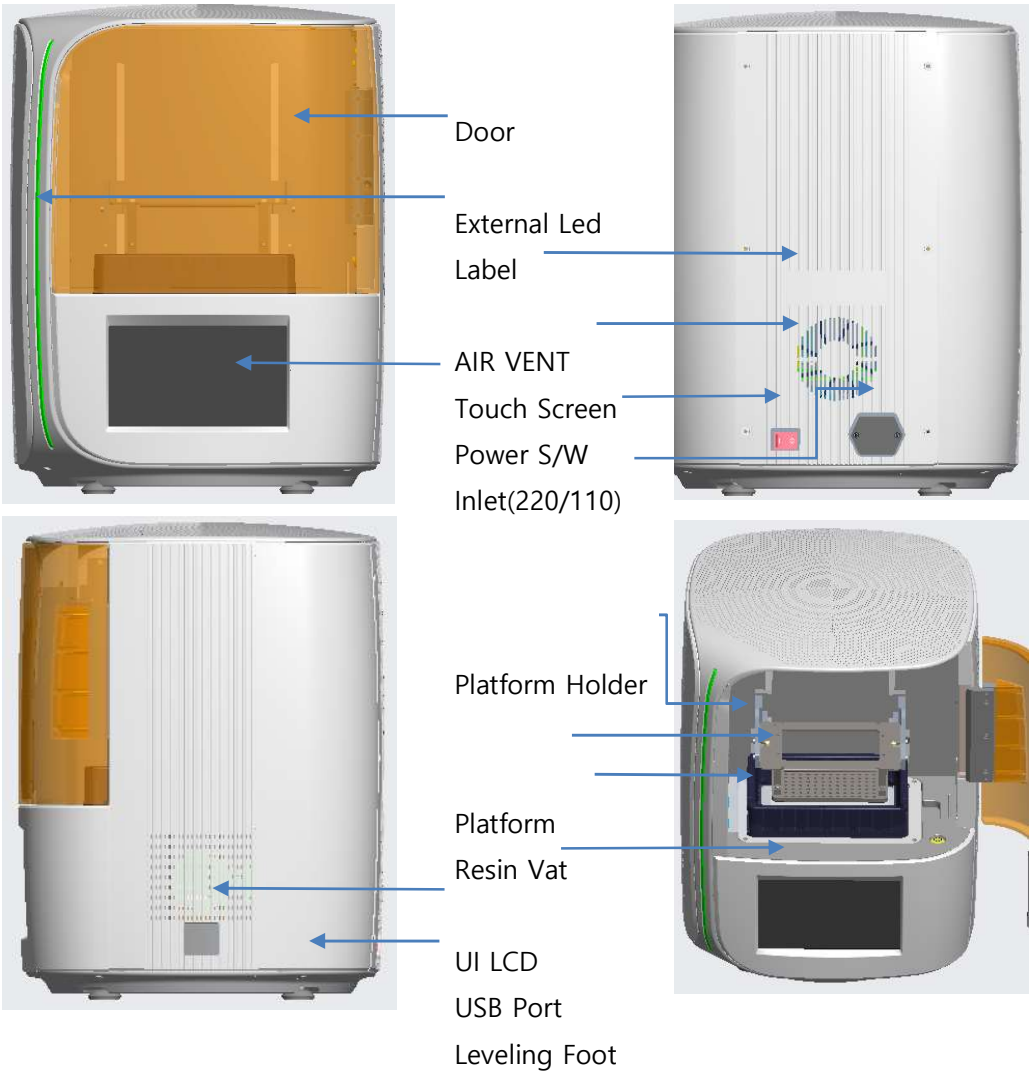
This product is a device that outputs dental-related materials with a light-curing 3D printer.

1.1 Main Function

Category	Spec.
PRINTER TYPE	Adaptive Mask Stereolithography
RESOLUTION X,Y	50 μm
BUILD SIZE X,Y,Z	120 * 75 * 125
LIGHT SOURCE	405nm, Arrayed LED
Z RESOLUTION	10μm ~ 200μm
MATERIAL SYSTEM	Open Material
BULD PLATE TYPE	Leveling Free
UI DISPLAY	7inch Touch
MASHINE SIZE / WEIGTH	325 * 325 * 424 / 15.3Kg
POWER	100-120 Vac 4A, 200-240 Vac 2.4A
SLICER S/W	Freeware
LED CONTROL	Individual adjustment of LED power and automatic calibration
WARRANTY	12 months manufacturer’s warranty

1.2 System Configuration

1.2.1 Product Composition



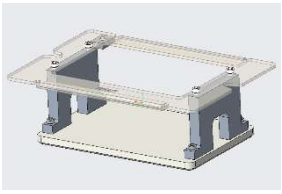
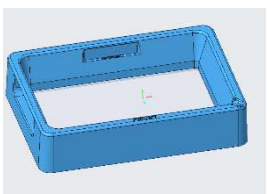
1.2.2 SIZE



1.2.3 Weight

- 3D Printer :15.3Kg
- 3D Prinnter (With Packaging): 21Kg

1.3 Standard Accessory

		
SCRAPPER(METAL)	**SCRAPPER(PLASTIC)**	**WRENCH**
		
FLITER	**USB DISK**	**NITRILE GLOVE**
		
NIPPER	**PINCETTE**	**SPRAY**
		
BRUSH	**POWER CABLE**	**QUICK GUIDE**
		
Platform	**Vat**	**Separation Tool**

Classification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- Class A equipment

  Class A equipment is intended for use in an industrial environment. In the documentation for the user, a statement shall be included drawing attention to the fact that there may be potential difficulties in ensuring electromagnetic compatibility in other environments, due to conducted as well as radiated disturbances.
- Protection against electric shock: Class I (when earthed)
- Measurement Category: CAT II
- Pollution Degree: 2

2

Safety Information

2.1 Introduction

Safety is everyone's responsibility. The safe use of this machine is largely dependent upon the installers, users, operators, and managers. It is prerequisite to read and understand these specifications before installing, using, cleaning, fixing or revising. Fully understanding the whole instructions must be the first priority. For this reason, the following safety notices have been placed appropriately within the text of this manual to highlight safety related information or information requiring special emphasis. All users, operators, and maintainers must be familiar with and pay particular attention to all signs of Warnings and Cautions.

⚠ WARNING

"Warning" indicates the presence of a hazard that could result in severe personal injury, death or substantial property damage if ignored.

⚠ CAUTION

"Caution" indicates the presence of a hazard that could result in minor injury, or property damaged if ignored.-

NOTE

This is used to emphasize essential information.
Be sure to read this information to avoid operating the device incorrectly.

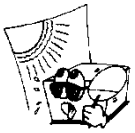
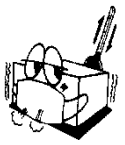
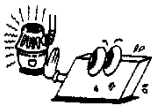
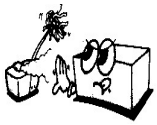
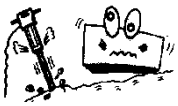
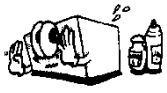
2.2 Safety Symbols

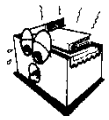
- The International Electrotechnical Commission (IEC) has established a set of symbols, which are listed below.
- This applies only to the instrument that has the certification symbol printed explicitly on the product label or sticker.

	I and O on power switch represent ON and OFF respectively.
	This symbol identifies caution, risk of danger. Ensure you understand the function of this control before using it. Control function is described in the appropriate User's or Service Manual.
	Protective Earth Connection
	CE Mark
	**<u>Disposal of your old appliance</u>** 1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC. 2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities. 3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health. 4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.
	Alternating Current

2.3 Environmental Considerations

Avoid the following environments for operation or storage:

	Where the machine is exposed to water vapor. Don't operate the machine with wet hands Indoor use only
	Where the machine is exposed to direct sunlight.
	Where there are big changes in temperature. Optimal temperature range for normal operation is from 18°C to 26°C. (Humidity : 30 ~ 80%)
	Where there is a hot equipment nearby
	Where the humidity is extremely high or there is a ventilation problem.
	Where the machine is exposed to excessive shocks or vibrations.
	Where the machine is exposed to chemical material or explosive gas.

	Be cautious so that things like dust and metal do not fall inside the machine.
	Don't disassemble or open the product. HUVITZ does not take responsibility for the possible problems
	Be careful not to block the fan located on the backside of the machine.
	Don't plug the AC power cord into the outlet unless all parts of the machine are completely connected. Otherwise, it will cause severe damage on the machine.
	Pull out the power cord with holding the plug, not the cord. To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

This instrument must be followed by these following conditions:

- Operation

  An ambient temperature range of 18℃ ~ 40℃ (64°F ~ 104°F)

  A relative humidity range of 30% ~ 80%
  An atmospheric pressure range of 800 ~ 1060hpa
  An indoor use, Altitude up to 2000 m

- Transportation

  An ambient temperature range of -40℃ ~ 70℃ (13°F ~ 158°F)

  A relative humidity range of 10% ~ 95% (with non-condensing)
  An atmospheric pressure range of 500 ~ 1060hpa

- Storage

  An ambient temperature range of -10℃ ~ 55℃ (14°F ~ 131°F)

  A relative humidity range of 10% ~ 95% (with non-condensing)
  An atmospheric pressure range of 700 ~ 1060hpa

- Temporary Overvoltage

  Short-term temporary overvoltage: 1440V

  Long-term temporary overvoltage: 490V

Please avoid where the equipment is exposed to excessive shocks or vibration.

2.4 Safety Precautions

This machine has been developed and tested according to safety standards as well as national and international standards. This guarantees a very high degree of safety for this device. HUVITZ is legally required to inform the users of all the information regarding safety. Observance of the instructions is the requirement for the safety. Therefore, please read carefully all instructions before switching on this machine. For more detailed information, please contact our Customer Service Department or one of our local agencies

1. This equipment must not be used (a) in an area that is in danger of explosions and (b) in the presence of flammable, explosive, or volatile solvent such as alcohol, benzene or similar chemicals.

2. Do not place or store this machine in humid area. Humidity should be maintained between 30 and 80% for normal operation. Do not expose the device to water splashes, dripping water, or sprayed water. Do not place containers with fluids, liquids, or gases on top of this machine

3. The machine must be operated by a trained and qualified person or under his or her supervision

4. Repair of this machine must be conducted by HUVITZ's service technicians or other authorized persons.

5. Maintenance by users must observe the User's Manual and Service Manual. Any additional maintenance may only be performed by HUVITZ's service technicians or other authorized persons.

6. Manufacturers are responsible for the safety, reliability, and performance of this machine only when the following requirements are fulfilled: (1) When the machine has been installed in a proper area, following the manual. (2) When the machine has been operated and maintained according to the manual and service manual.

7. Manufacturers are not responsible for the damages caused by unauthorized alterations. Such tampering will forfeit any rights to receive services during the term of guarantee.

8. This machine must be connected with the accessories supplied by HUVITZ. If you are to use other accessories, their safety or usability must be checked and proved by their manufacturers or HUVITZ

9. Only those who have undergone proper training and instructions are authorized to install, use, operate, and maintain this machine.

10. Keep the User's Manual and Service Manual in a place easily accessible at all times for persons operating and maintaining the equipment.

11. Do not apply excessive force to cable connections. If the cable does not connect easily, make sure that the connector (plug) is appropriate for the receptacle (socket). If you caused any damage to a cable connector(s) or receptacle(s), let the damage(s) be repaired by an authorized service technician.

12. Please do not pull on any cable. Always grab the plug when disconnecting cables.

13. Before you use, check the exterior of the machine and its conditions

14. Do not block any ventilation outlet necessary for proper heat dissipation.

15. If smoke, sparks or any abnormal noise or smell is noticed coming from the machine, please switch the power off immediately and pull out the plug.

16. You may use your earplug as the machine makes noise while operating.

17. When you carry this product, please use a hand cart. At least three people are required to lift the machine. If you want to move the product to other area, please contact customer service center.

18. To avoid the risk of electric shock, this machine must only be connected to protective earth.

19. Do not place the machine where it is difficult to operate the disconnecting device (disconnecting device: power cord)

20. The machine may be impaired if it is used in a manner not specified by the manufacturers or manual.

21. For protection against electrical shock, all accessories connected to the outlets interfaces, such as Pump, Vacuum Cleaner and etc, must be certified ones.(IEC/UL)

22. When you carry this product, please use both handles on left and right side of the product. If you want the product to be installed on another please call A/S center.

⚠ WARNING

- Be sure that your body does not touch the machine while the edging wheel operates. Otherwise, you may be seriously injured.
- Edging room cover should be fully closed during the lens finishing process. If the lens is broken during the process, the broken pieces of lens may cause damage to the person. The debris may also cause damage to the human eyes.
- Be sure not to press the clamp button unless the wheel completely stops. Otherwise, the lens may be fallen and broken by the wheel, and cause a serious injury
- If you find any crack on the edging wheel or on the bottom of the machine, immediately stop the operation and ask for the service. If the edging wheel is broken during the operation, the broken pieces may cause a serious injury
- Be sure not to edge the materials other than the spectacle lenses. Otherwise, it may weaken the wheel performance and cause a crack on it. If the edging wheel is broken during the operation, the broken pieces may cause a serious injury.
- Be sure not to operate the product unless the front cover of edging body is fully closed. Otherwise, it may cause a serious injury.
- The machine should be properly installed and operated based on the instructions on this manual. If the power is turned on without unlocking the locking device for the carriage and feeler, it may cause damage to the product and cause malfunction of the product.
- Do not disassemble the product without receiving regular training. It may cause electric shock or serious injury during the operation or cause the malfunction of the product.
- Make sure that the material of the authentic lens is identical with that of selected lens in the system before starting the edging mode. Otherwise, it may cause damage to the wheel and shorten the lifetime of wheel.
- Safety beveling for a lens made of glass should be processed at both front and rear sides of the lens. Otherwise, it will cause damage to the wearer's skin
- The product should be properly installed and maintained at flat and even ground. Otherwise, it may affect the normal operation of the machine.
- Be sure that your fingers are not caught during clamping.
- When detaching the lens adapter from the process-finished lens, use the Adapter Remover supplied as the standard accessory. Do not pull out the lens adapter with your hands.
- Be sure that the water supply hose is not folded or interfered with other objects causing the problem

of water supply. It may deteriorate the quality of lens finishing. The debris of lens may cause damage to the respiratory organ of human and malfunction of the product.

⚠ CAUTION

- When moving the machine, first fix the stage and check whether the power supply is off. Then, two or more persons should lift the bottom of the product with both hands.
- When setting down the machine, make sure not to be interfered with the obstacles. Set down the product slowly in order to prevent any injury of human body or damage to the product.
- When moving the machine, make sure the locking device and the screw for the cover are properly tightened.
- When wrapping the machine, use recommended packaging and shock-absorbing materials in order to prevent damage during the transportation.
- Be sure to use the standard accessories or tools provided together with the product for the maintenance. Otherwise, it may cause the malfunction of the product.
- When processing wheel dressing, be sure to use dressing sticks that fit each wheel. The dressing stick should be replaced when its length becomes so short that you cannot hold it easily.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment
- Make sure that the power cord is the correct type that is required in your area. This Device has a universal power supply that allows operation in either 100-120 Vac or 200-240 Vac voltage areas (no user adjustment is required).
- Power Cord Requirements :

  For 100-120 Vac use
  - UL style SV, SVT, SJ or SJT, 18AWG, 3 conductor
  - One end with NEMA 5-15P min. 10A, 125V
  - Other end IEC 60320 C13 max. 3 m long

  For 200-240 Vac use - Plug end
  - Cable H05VV-F 3G, min. 1.0 mm2
  - Other end (with appliance coupler connected to unit IEC 60320 C13), 3 m long
  - CEBEC, DEMKO, KEMA, NEMKO, OVE, SEMKO, VDE, UTE, FEMKO
  - Conductor Colors – brown, blue, green/yellow stripe

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

2.5 EMC Information

	GENERAL REQUIREMENTS		
	The manufacturer shall indicate the electromagnetic environment for which the EUT is intended used and the standard(s) that was/were applied.	Described in User manual	P
	The manufacturer shall give information that emissions which exceed the levels required by this document, can occur when the EUT is connected to a test object.	Described in User manual	P
	If a performance level or any permissible performance loss is valid under the electromagnetic immunity conditions, then this level shall be described in the user documentation.	Described in User manual	P

*** This device complies with EN IEC 61326-1:2021 and Part 15 of the FCC Rules. Operation is subject to the following two conditions:**

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Attachment 1 –EMC (Electromagnetic Compatibility) Information

The Electromagnetic Compatibility Directive sets the essential requirements for electrical and electronic equipment that may disturb or even be disturbed by other equipment. The LP-100 complies with these requirements as tabled below. Follow the guidance on the tables for use of the device in the electromagnetic environment.

Equipment is suitable for use in professional healthcare facility environment only.

The use of accessories, transducers and cables other than those specified, with the exception of transducers and cables sold by the HUVITZ of the medical electrical equipment or medical electrical system as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of EQUIPMENT or SYSTEM.

Phenomenon	Basic EMC standard or test method	Port tested	Test level/requirement
Mains terminal disturbance voltage	CISPR11:2015+A1:2016 +A:2019 EN 5011:2016/A11:2020	AC Mains	Group1, Class A
Radiated disturbance	CISPR11:2015+A1:2016 +A:2019 EN 5011:2016/A11:2020	Enclosure	Group1, Class A
Harmonic Current Emission	IEC 61000-3-2:2018 +A1:2020 EN IEC 61000-3-2: 2019/A1:2021	N/A	N/A
Voltage change, Voltage fluctuations and Flicker Emission	IEC 61000-3-3:2013 +A1:2017+A2:2021 EN 61000-3-3:2013/ A1:2019	N/A	N/A
Electrostatic Discharge Immunity	IEC 61000-4-2:2008 EN 61000-4-2:2009	Enclosure	± 4 kV/Contact ± 8 kV/Air
Electromagnetic Field Immunity	IEC 61000-4-3:2020 EN IEC 61000-4-3:2020	Enclosure	10 V/m (80 MHz-1 GHz), 3 V/m (1.4 GHz-6 GHz) 80% AM at 1 kHz
Electrical Fast Transient/Burst	IEC 61000-4-4:2012 EN 61000-4-4:2012	AC Mains	± 2 kV, 5 kHz or 100 kHz repetition frequency
Surge	IEC 61000-4-5:2014 +A1:2017 EN 61000-4-5:2014 +A1:2017	AC Mains	Line to Line ± 1 kV Line to Ground ± 2 kV
Conducted Disturbances Induced by RF fields	IEC 61000-4-6:2013 EN 61000-4-6:2014	AC Mains	3 V 0.15-80 MHz 80% AM at 1 kHz
Power Frequency Magnetic Field	IEC 61000-4-11:2020 EN IEC 61000-4-11 :2020	Enclosure	30 A/m 50 Hz & 60 Hz
Voltage dips	IEC 61000-4-11:2020 EN IEC 61000-4-11 :2020	AC Mains	0 % during 1 cycle 40 % during 10/12 cycle 70 % during 25/30 cycles
Voltage interruptions	IEC 61000-4-11:2004	AC Mains	0 % during 250/300 cycles

3

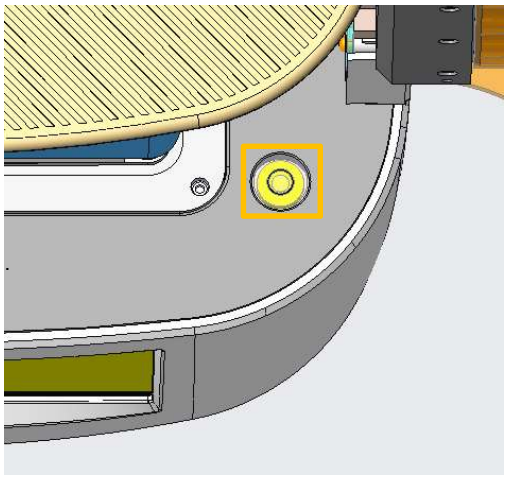
Install

- Remove the cushioning material from the packaging box and take out the product
- Place the printer on a flat table.

. Leave at least 10 cm of space at the back of the product to connect the power supply.

. Leave at least 10 cm of space on the right side of the product so that the door can be opened.

- Check the level inside the output room and adjust the Leveling Foot





⚠ it is not leveled, printing defects may occur due to lack of resin

- Turn on the power and check the operation.

4

Printer setting

4.1 Preparation

4.1.1 Auto Led Calibration and Preheating

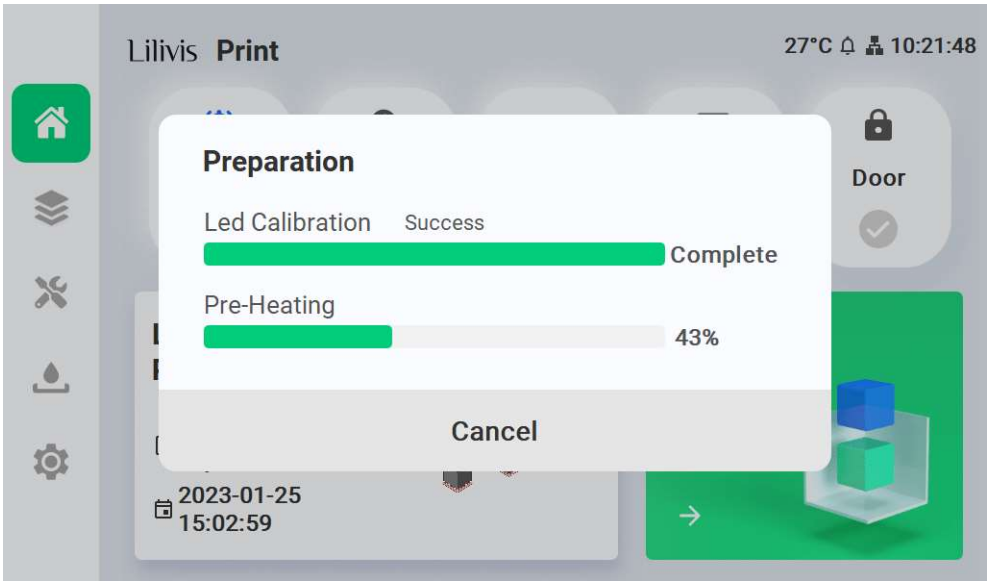
- Led Calibration and Preheating is automatically run when the power is on

  . Automatically uniforms Led Power when the power is on

  . Automatically adjusts temperature for printing after Led Calibration

- It does not work when Auto Preheating is turned off or when the internal temperature

  of the device is over 20 degrees.



4.1.2 Install Build Platform and Vat

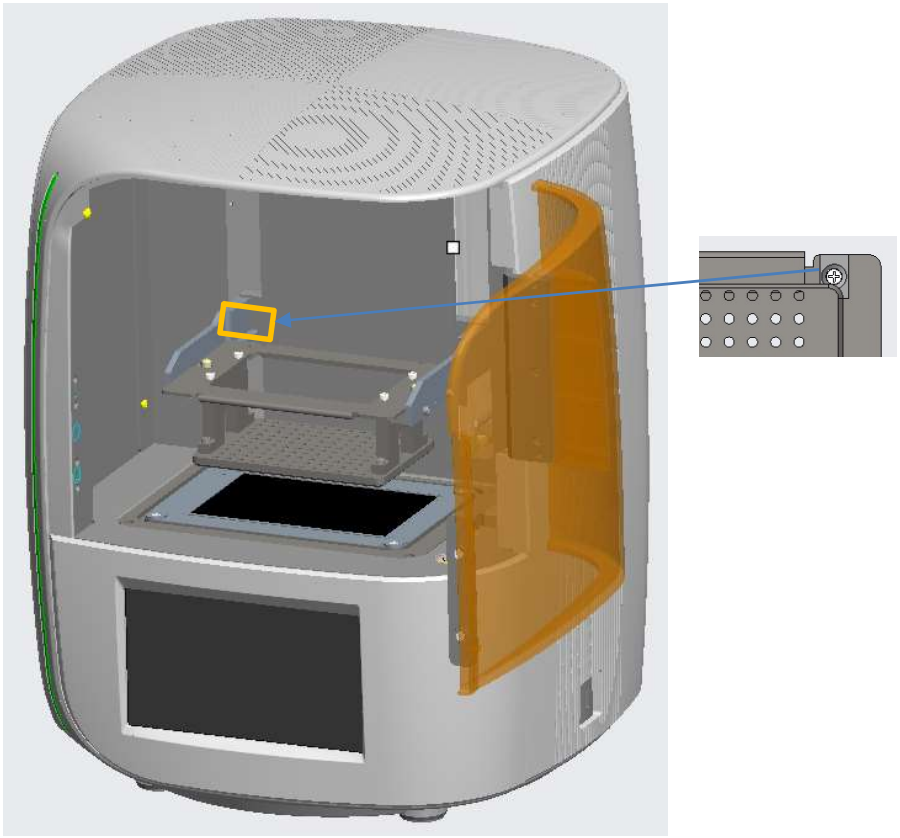
- Mount the platform paying attention to the direction

  . Mount the platform paying attention to the direction of the magnet.

  . Sensor does not work when mounted in the opposite direction

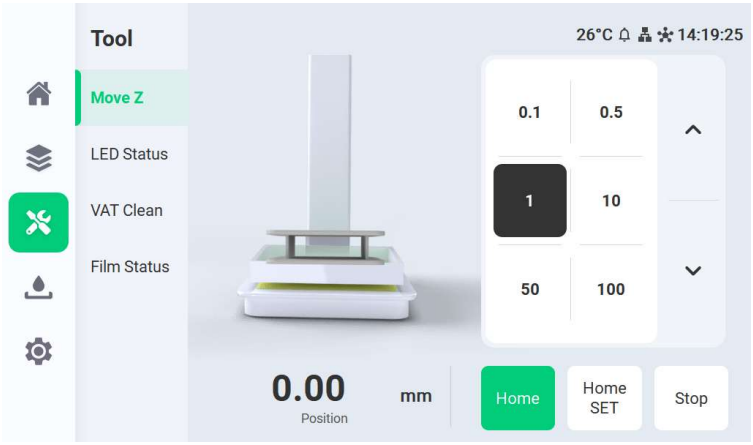
- Do not mix and use platforms of different products

⚠ Mounting the platform in the opposite direction or mixing the platforms of other equipment may cause printing failure.

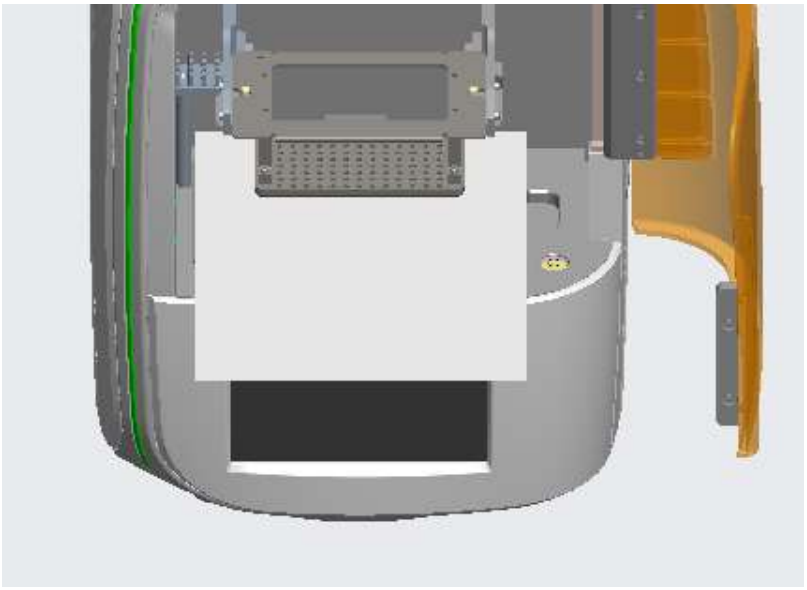


4.1.3 Check Zero Position

- Z Move mode



- Insert a sheet of A4 paper between the Mask LCD and the Platform and click the Home button.

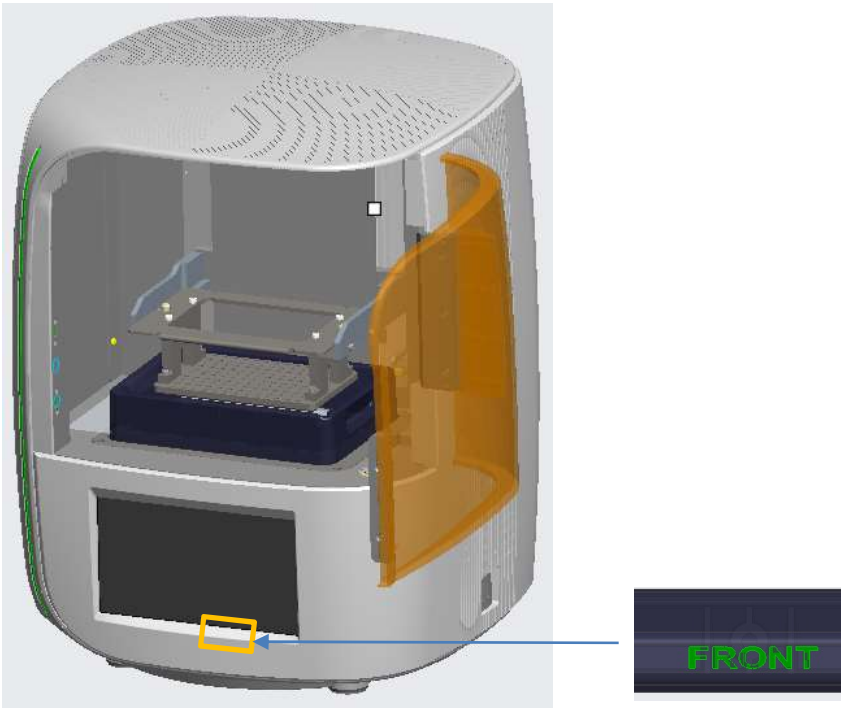


- If the paper is pulled when being tugged, Z Calibration must be performed

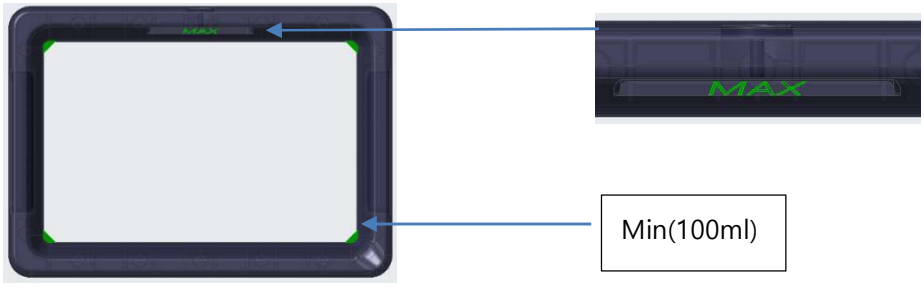
- If the paper is not pulled when being tugged, it is normal if the paper is pulled after moving 0.03mm upward. If the paper is not pulled, Z Calibration must be performed.

- For Z Calibration, refer to 6.3.1

4.1.4 VAT mounting



- Mount the Vat with the "front" facing forward.
- Check the vat is mounted correctly by pressing it with your hand.
- Resin should be filled over Min 100ml and less Max 300ml



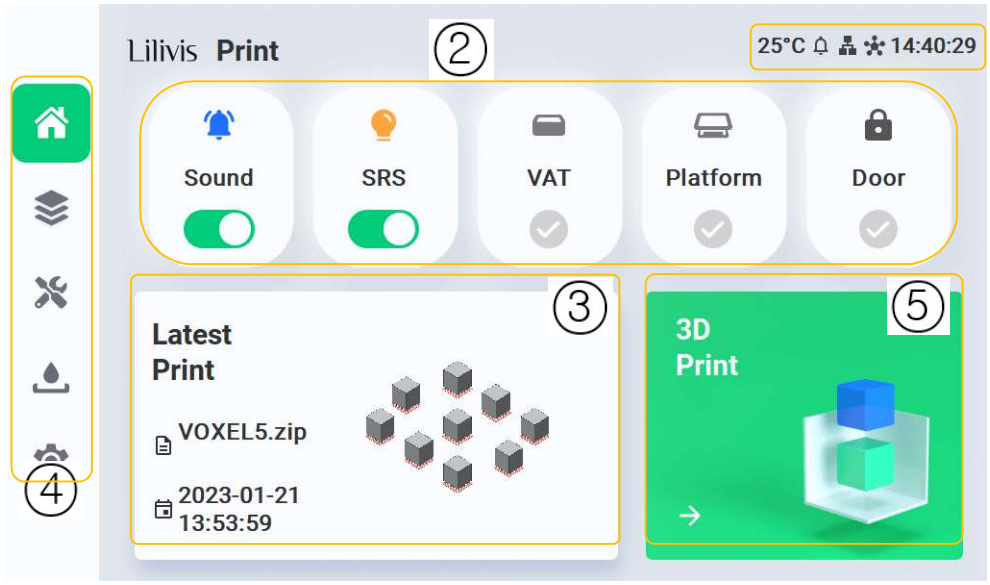
⚠ Insufficient resin filling may cause printing failure.

Mix materials before printing

5

UI composition

5.1 Home screen



① **Basic menu**

- Internal temperature of the device
- Sound On/Off status
- Network connection
- Manager server connection
- Current time

② **Widget menu**

- Sound On/Off setting
- Smart Reposition System On/Off setting

- Vat Mounting Indicator
- Platform Mounting Indicator
- Door status indicator

③ **Latest Print**

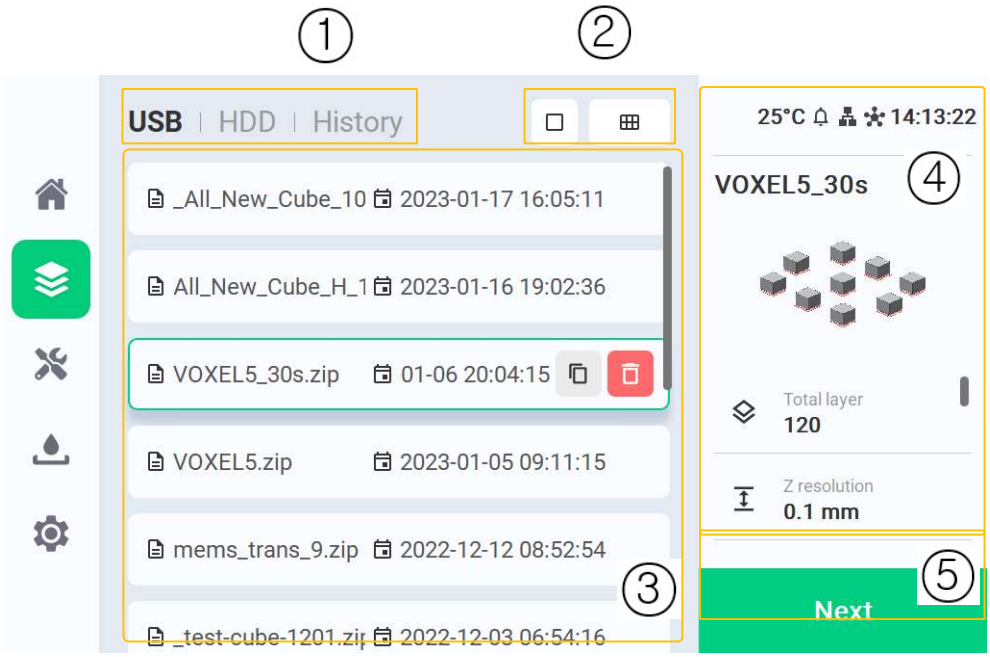
- Displays the most recent printing file: Click the image to go to the printing screen

④ **Shortcut menu**

- Go directly to Home, Printing, Settings, Resin, System

⑤ **Go to the detailed printing settings**

5.2 View and edit files

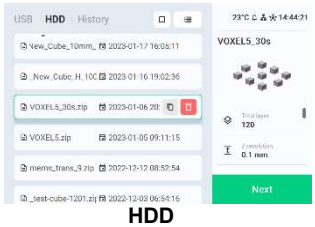


① **storage location**

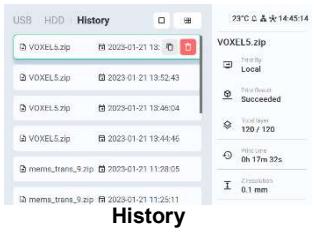
- USB/HDD: slice file storage drive
- History: Printing record display (Keeps only the 10 latest printing data)



USB



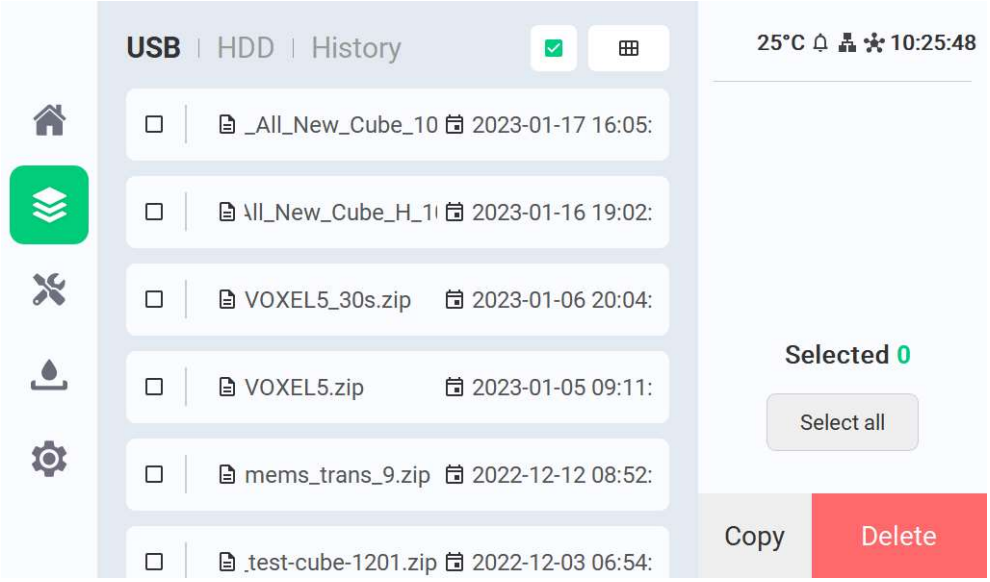
HDD



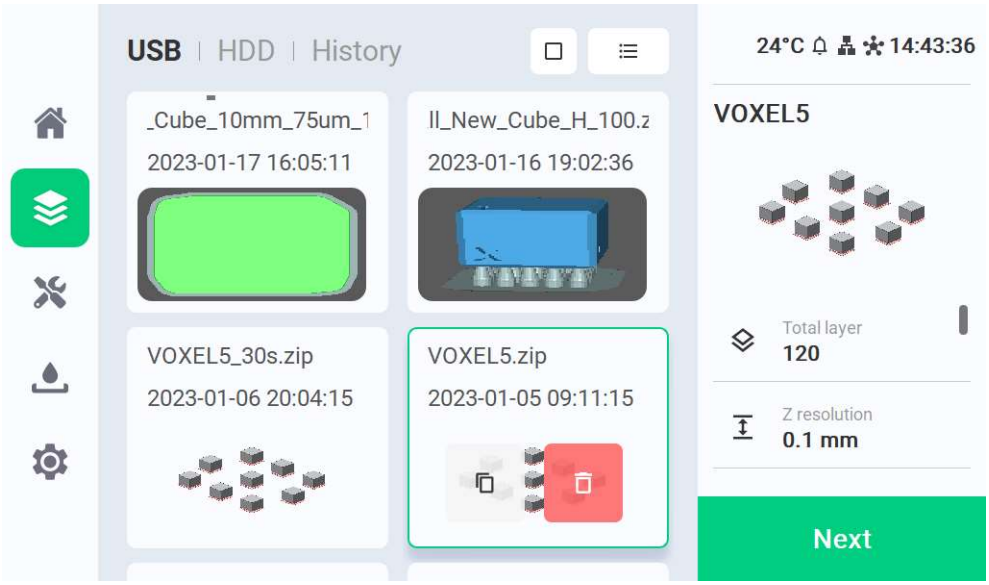
History

② **Select and view files**

- Activate multi-selection mode



- View details



③ **Display file list**

- Displays USB/HDD/History internal storage file list
- Copy and delete files

. After selecting the file, select the copy icon (USB to HDD or HDD to USB)

. Delete after selecting the file

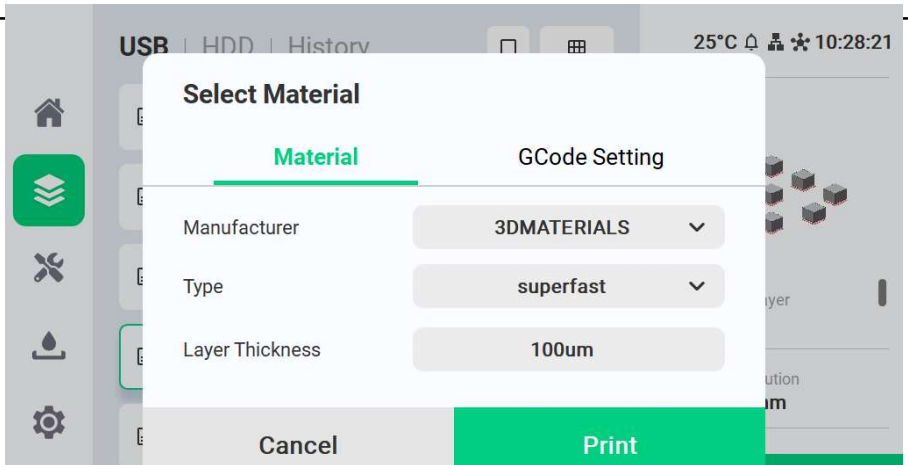
④ **Display printing information**

- Displays information of the selected file

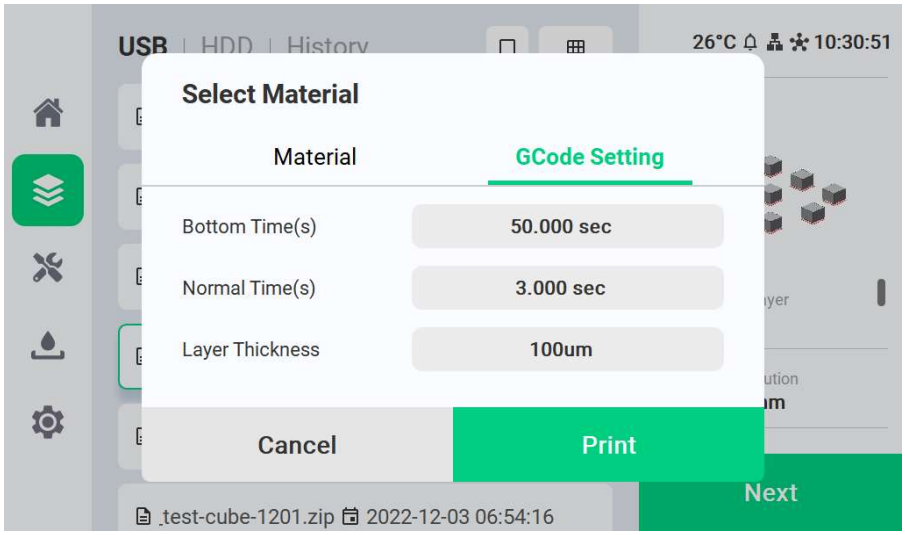
⑤ **Go to the Resin Settings**

- Select Printing Resin

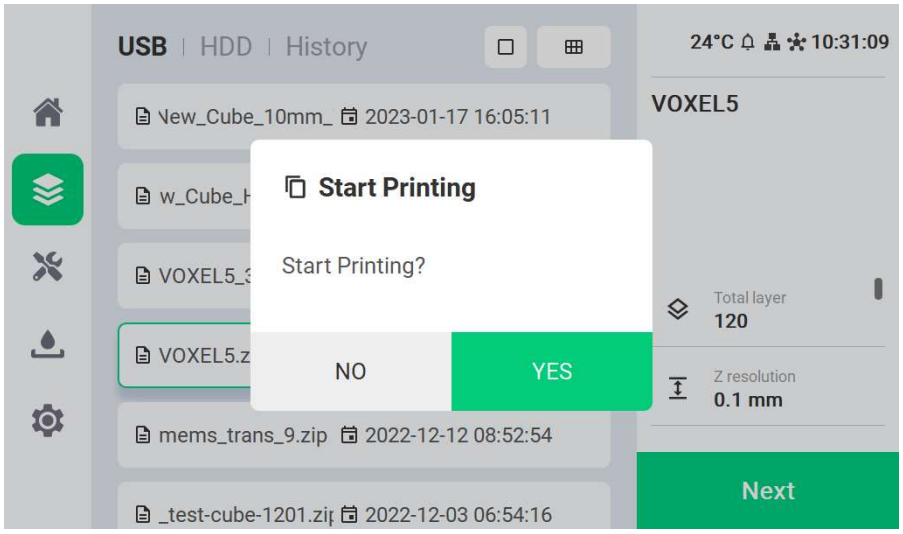
. Material Printing : Print after selecting Manufacturer and Type saved in Resin setting



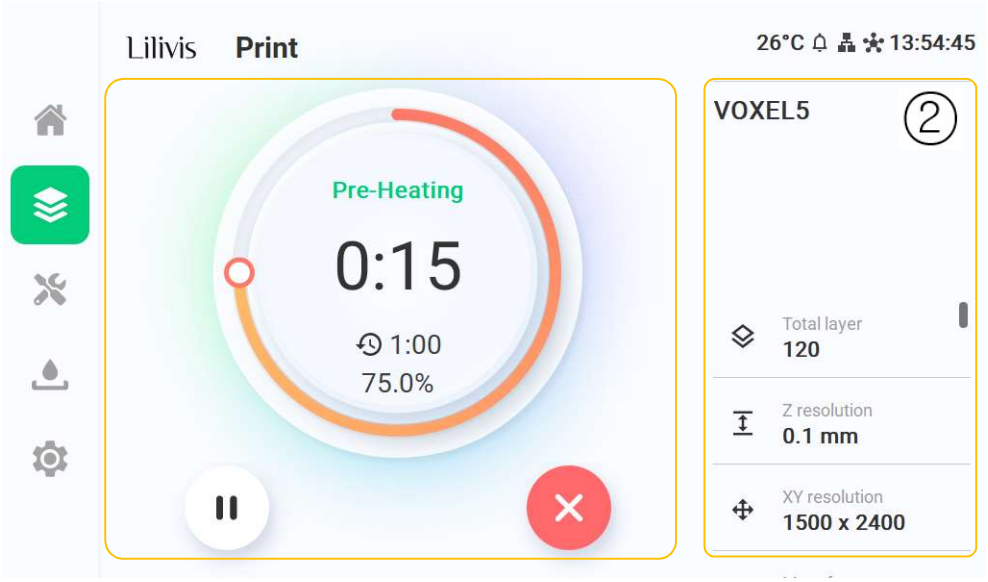
. G-Code Setting Printing : Print as the value set in the slicer program



- Start Printing

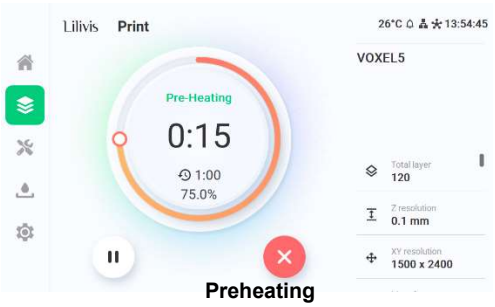


5.3 Print Monitoring

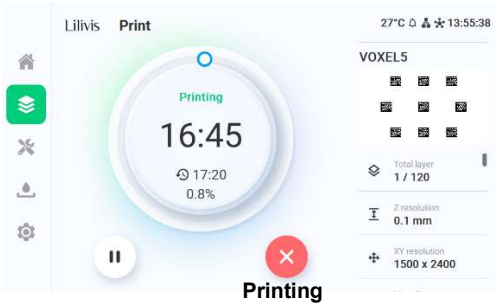


① **Display printing progress information**

- Prints after Preheating is complete



Preheating



Printing

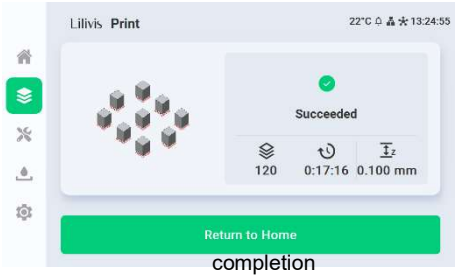
- Pause: Returns to Preheating or Printing when clicking the Resume button
- Cancel: Moves to the Z-axis setting position after canceling Preheating or Printing

② **Show Printing file details**

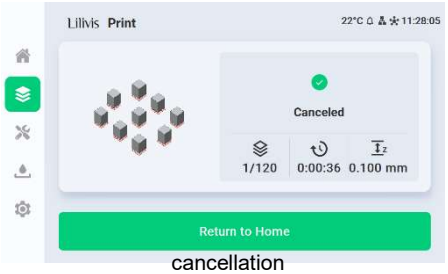
- Scroll up and down to check details

③ **Print completion and cancellation**

- Displays printing information



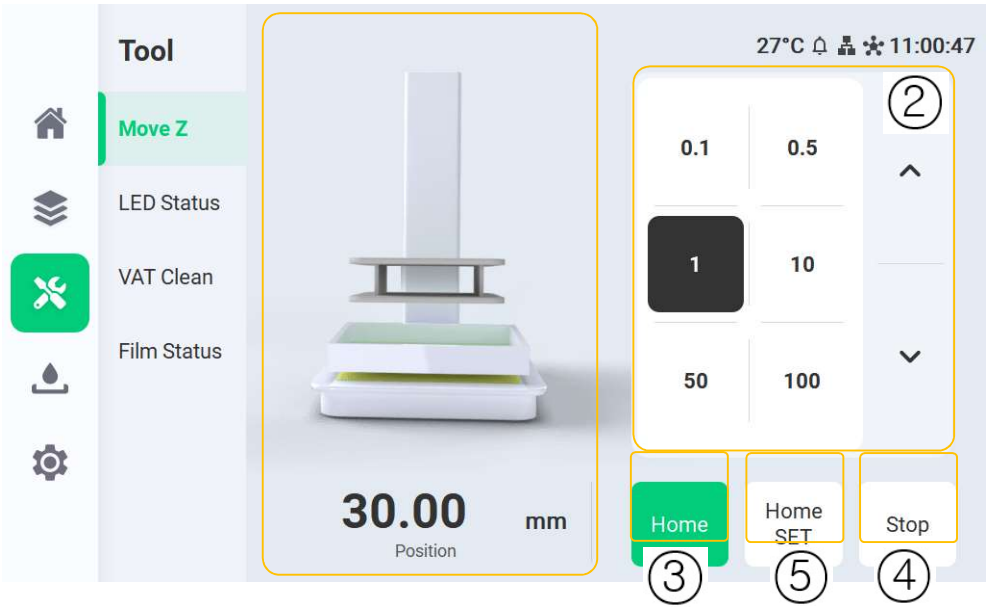
completion



cancellation

5.4 Tool

5.4.1 Move Z



① Z-axis position

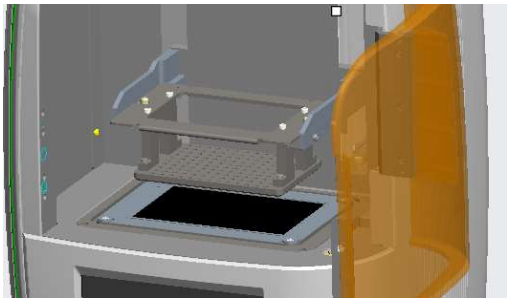
② Z axis up and down button

③ Z-axis initialization: Moves to the Z-axis home position when the home button is touched

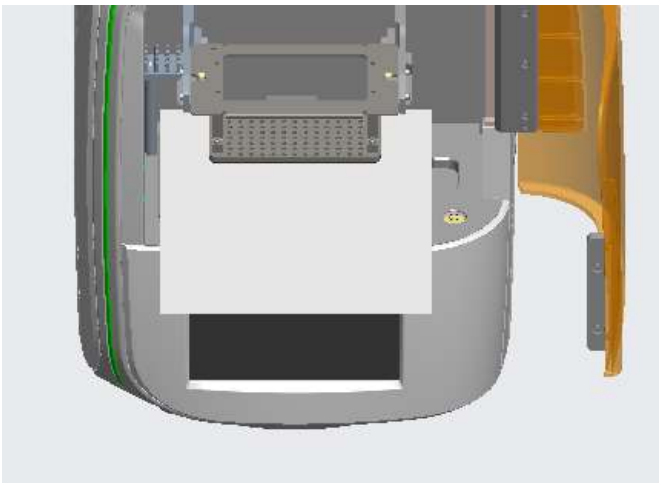
④ Stop Z-axis : stop during Z-axis movement

⑤ Reset Z-axis home position (Proceed when the Z-axis position is incorrect)

-Mount Platform



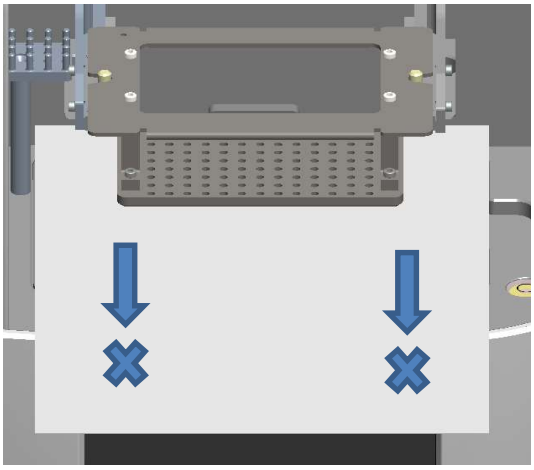
- After inserting the paper between Platform and MLCD, click Home button

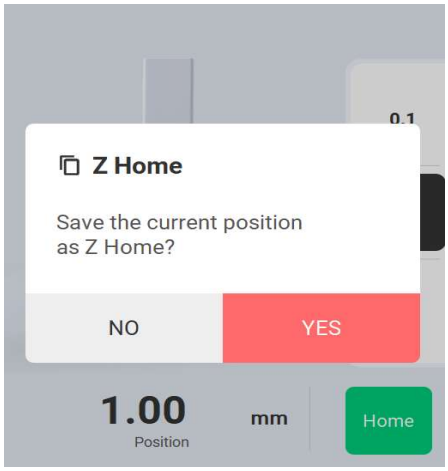


- Check the gap between LCD and Platform

. Insert 1 sheet of A4 paper between LCD and Platform

. When the paper is moved by 0.1mm, if the paper is not pulled on both the left and right sides, after moving down 0.2mm, press the “HOME SET” button to complete Z Calibration.

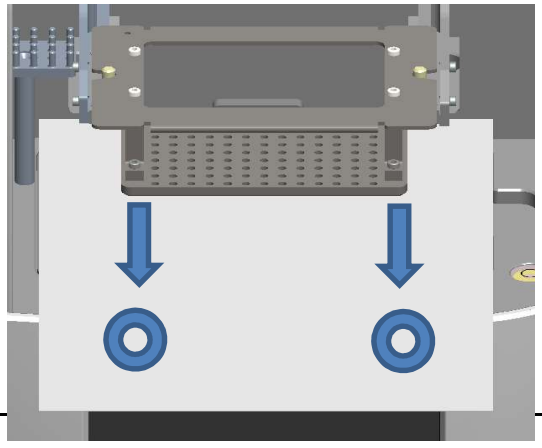




- If the paper is not pulled when being tugged, check if the paper is pulled when moving up by 0.1mm

. Move upward by 0.1mm and when the paper is pulled, move downward by 0.3mm and press the “HOME SET” button to complete Z Calibration

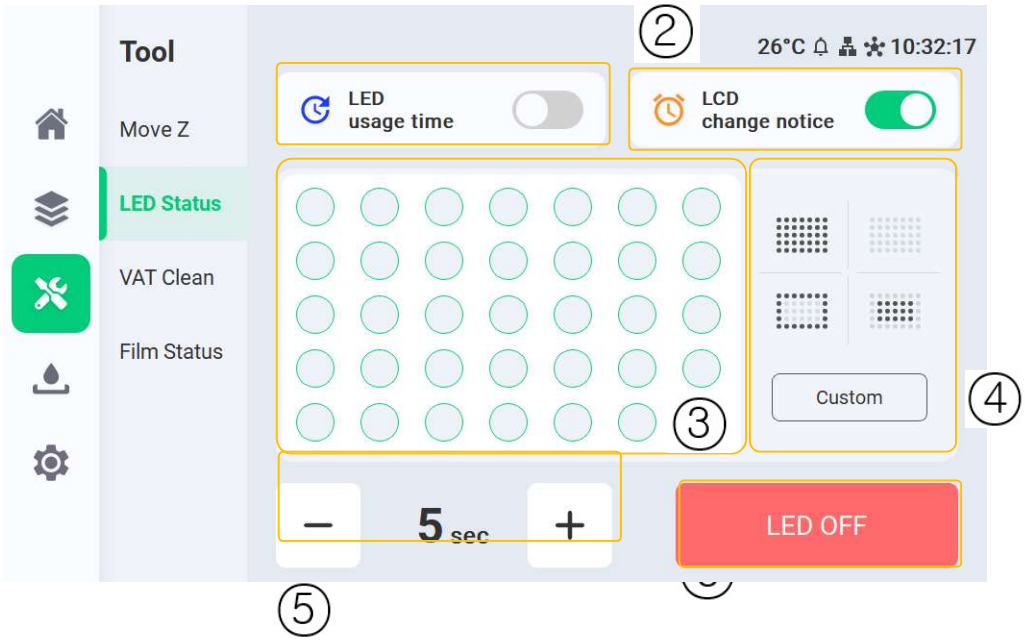
Z Calibration completed



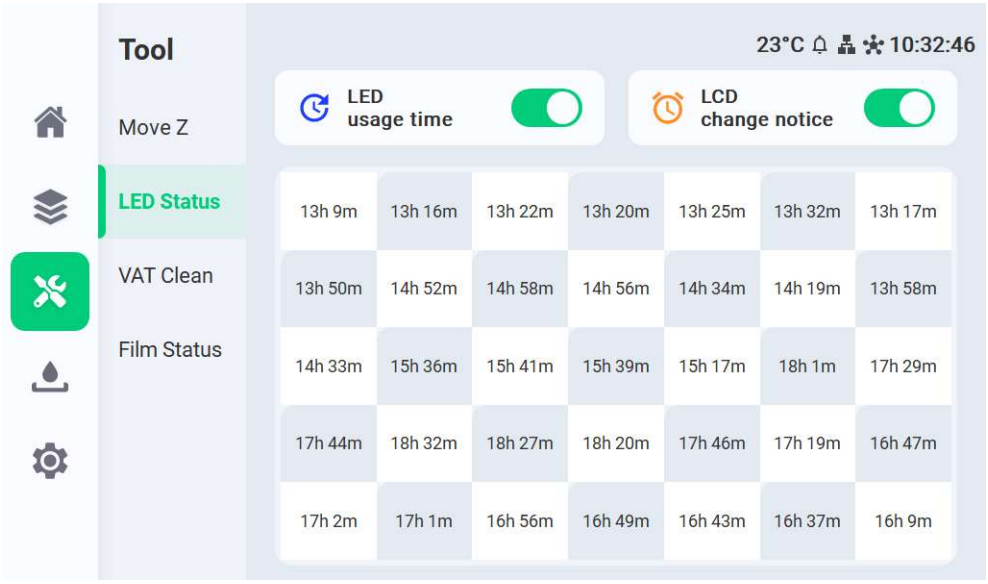


If the platform and MLCD are not on a level, it may cause printing failure.

5.4.2 LED Status



Displays usage time of each LED



② LED On/Off Replacement Notification

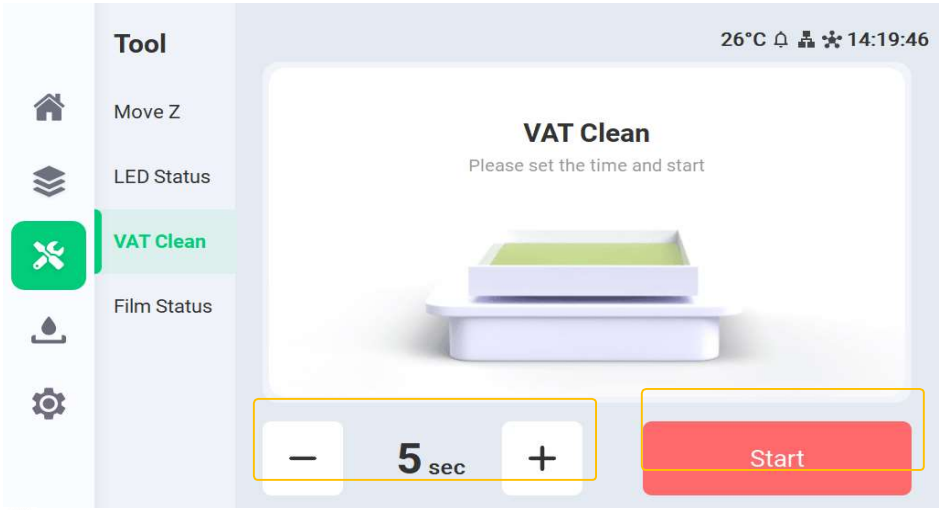
③ Displays Each LED On/Off

④ LED On/Off mode selection

⑤ LED On time setting

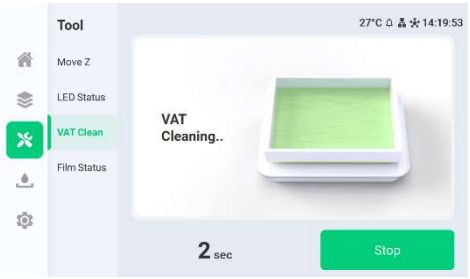
⑥ LED On/Off button

5.3.3 VAT Clean

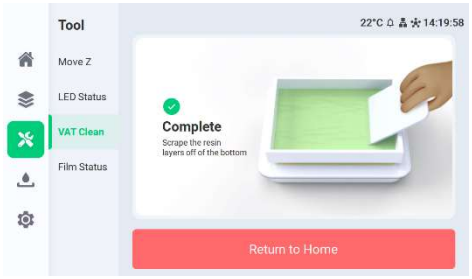


① LED On time setting

② LED On/Off button

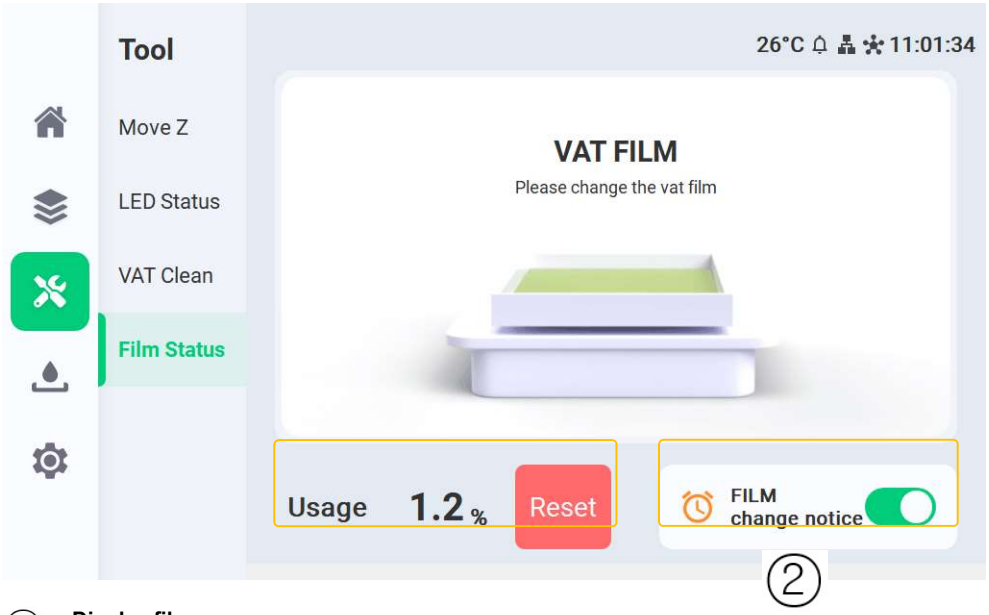


VAT Cleaning



Complete

5.4.4 Film Status

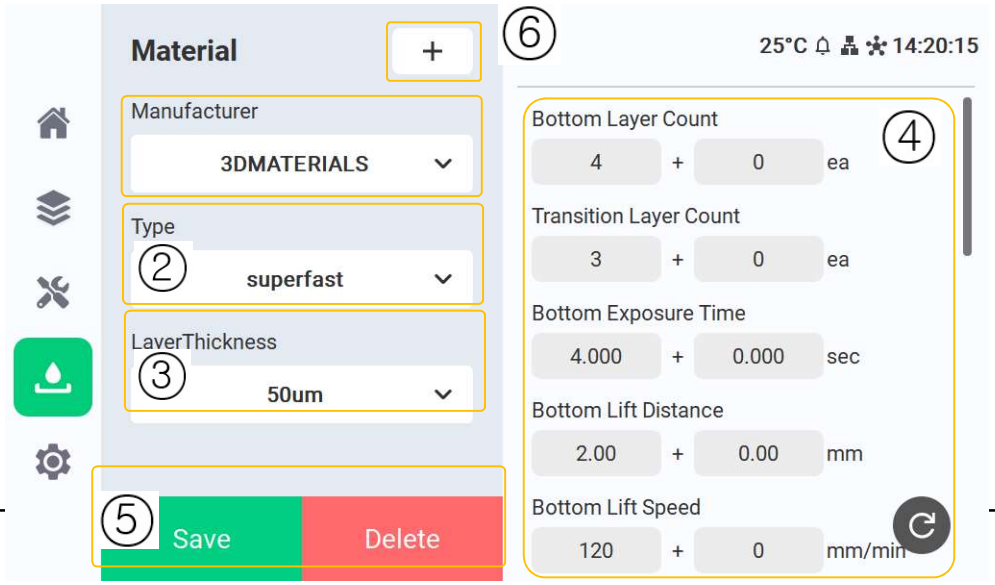


① **Display film usage**

- After replacing the film, click Reset button

② **Set Film Replacement Notification**

5.5 Material



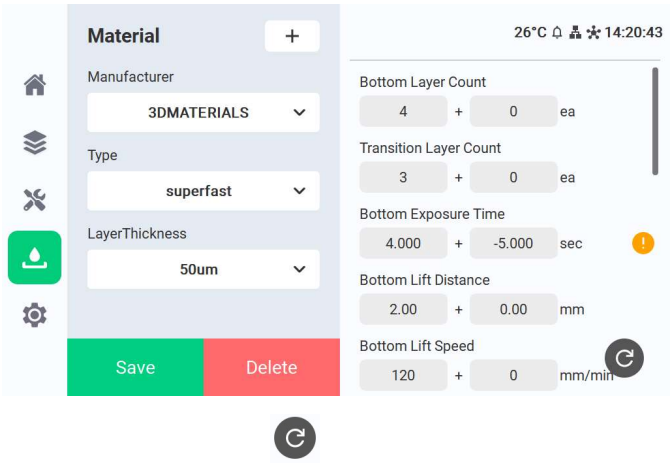
① Select Resin manufacturer

② Select Resin type

③ Layer thickness (set automatically when a file is selected)

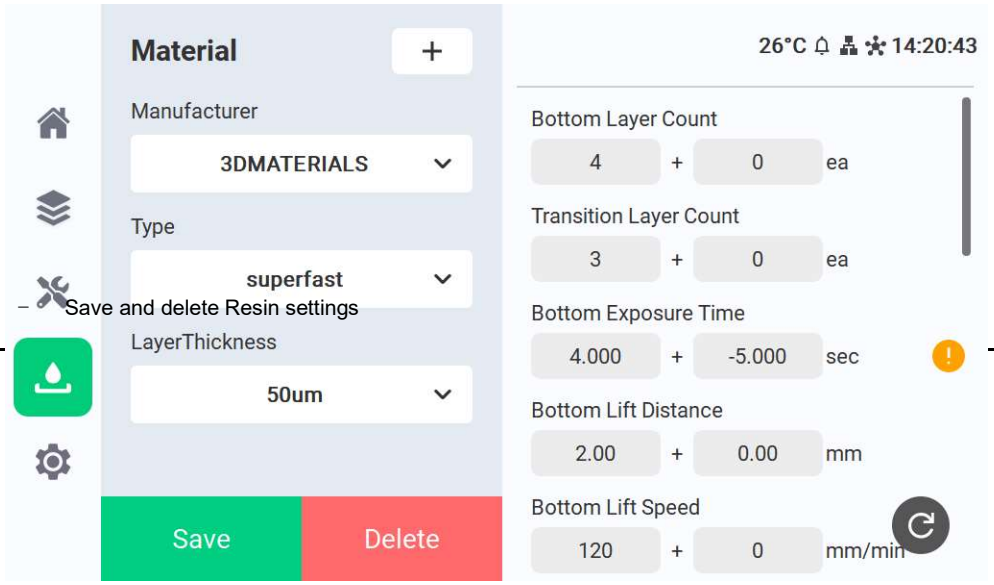
④ Display and edit Resin detailed settings

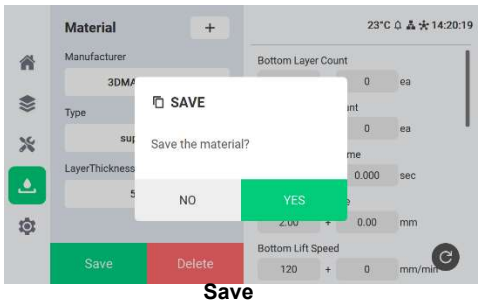
–  mark on the right when there is a setting error



– Initialize resin settings

– Save and delete Resin settings





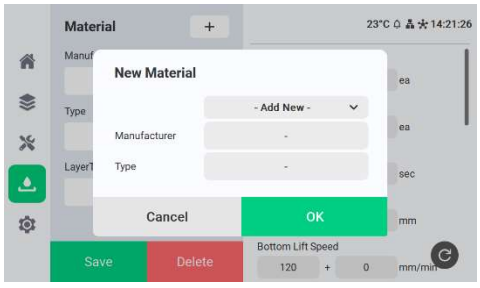
Save

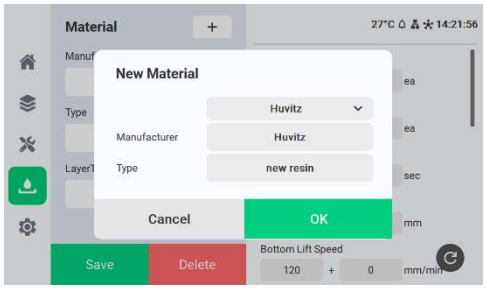


Delete

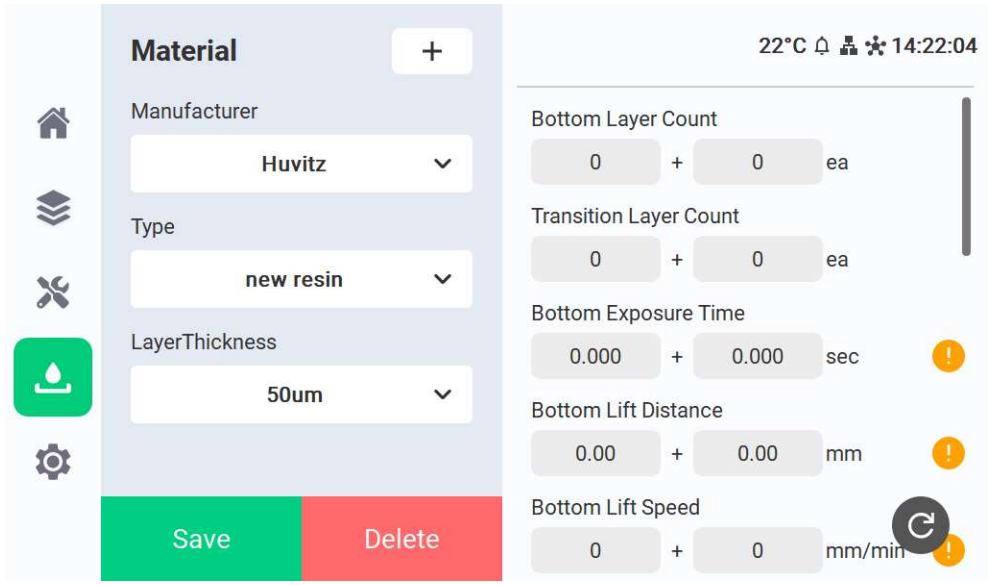
⑥ Add new Resin

- After clicking the Add New button, select “Manufacturer” and “Type”

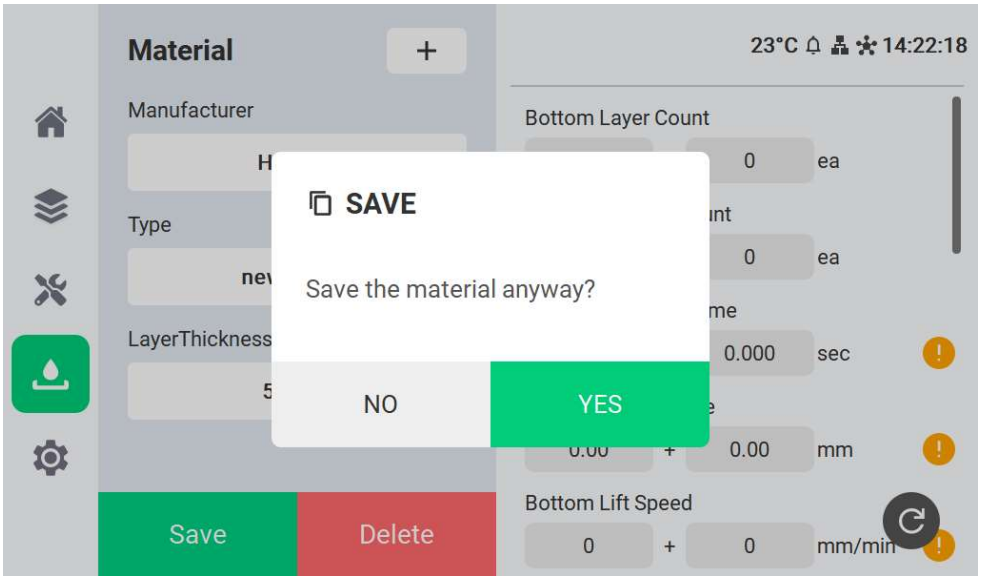




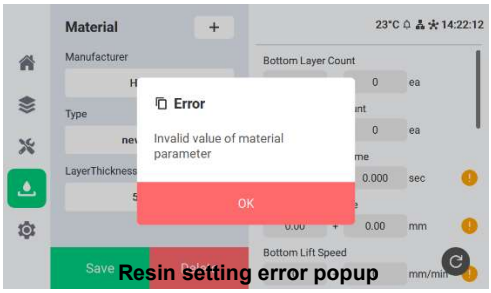
- Modify resin settings



- Save Resin setting



- Save error resin settings



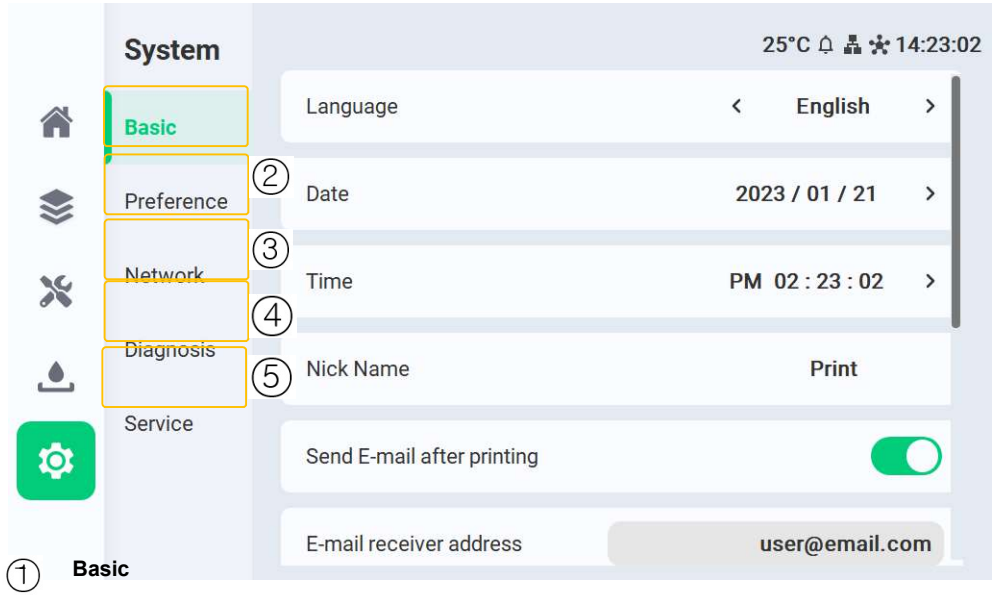
Resin setting error popup



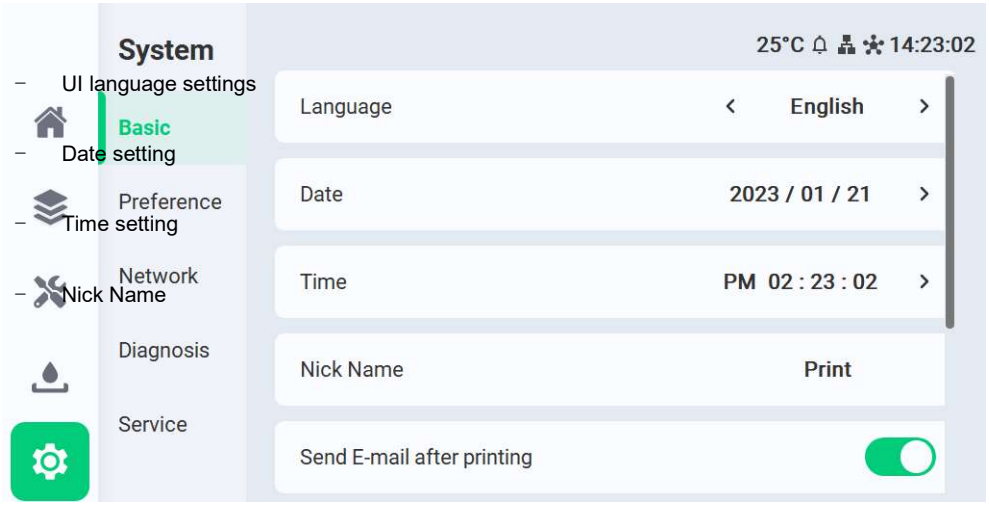
Error Resin Printing Popup

5.6 SYSTEM

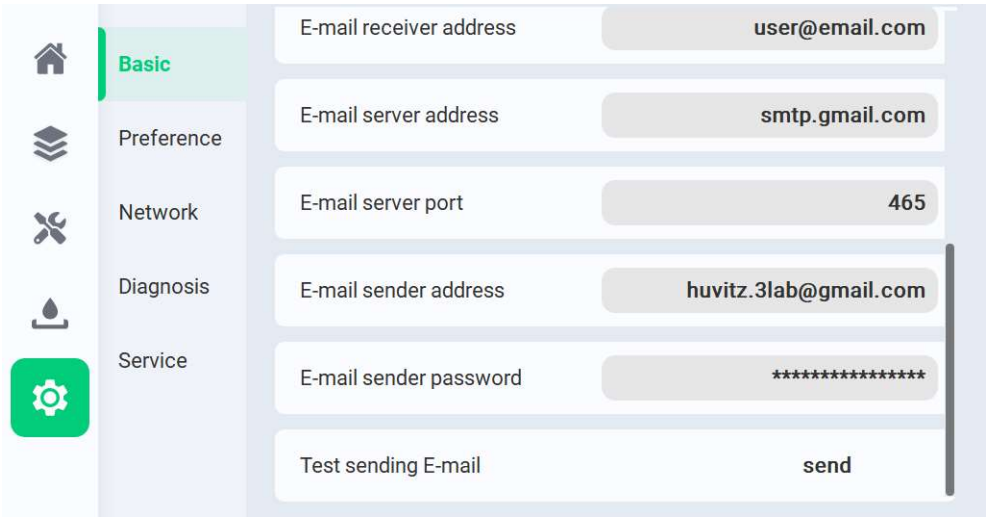
5.6.1 Basic



① **Basic**



- Set sending e-mail after printing Set email after printing



- E-mail receiver address
- E-mail server address
- E-mail server port
- E-mail sender address
- E-mail sender password
- Test sending e-mail

② Preference



- Sound setting

- Set Preheating at Boot

- Preheating setting before printing

- Smart Reposition System setting

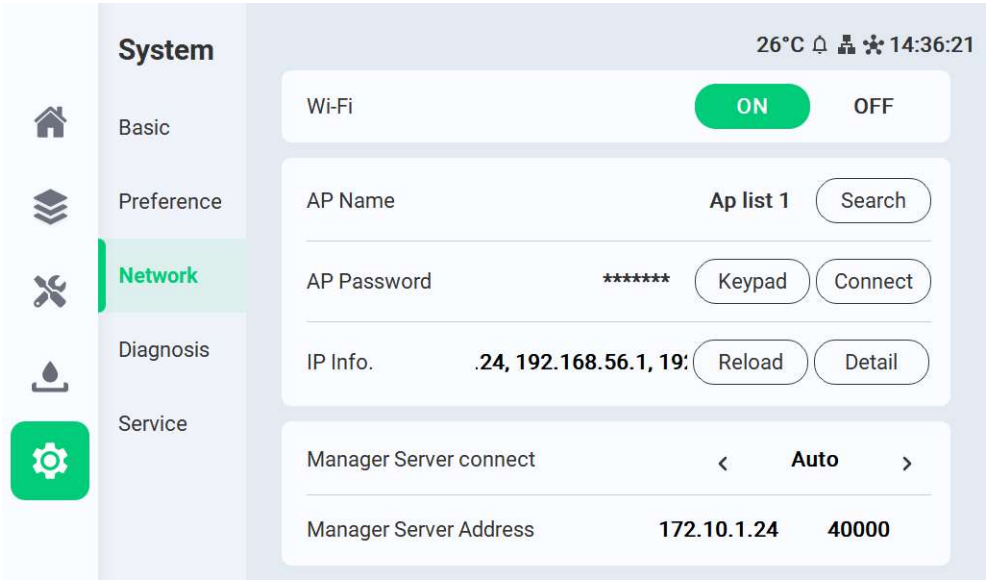
- Led Saving Mode setting

③ **Network**

– Insert the wireless dongle into the USB port.

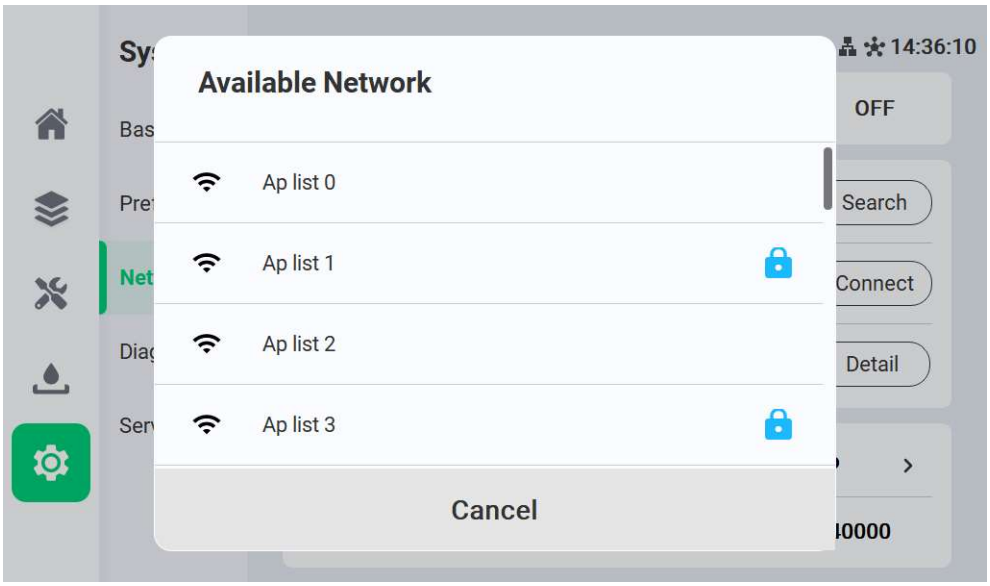
(Wireless dongle not provided)

- Auto IP setting



. Wi-Fi On

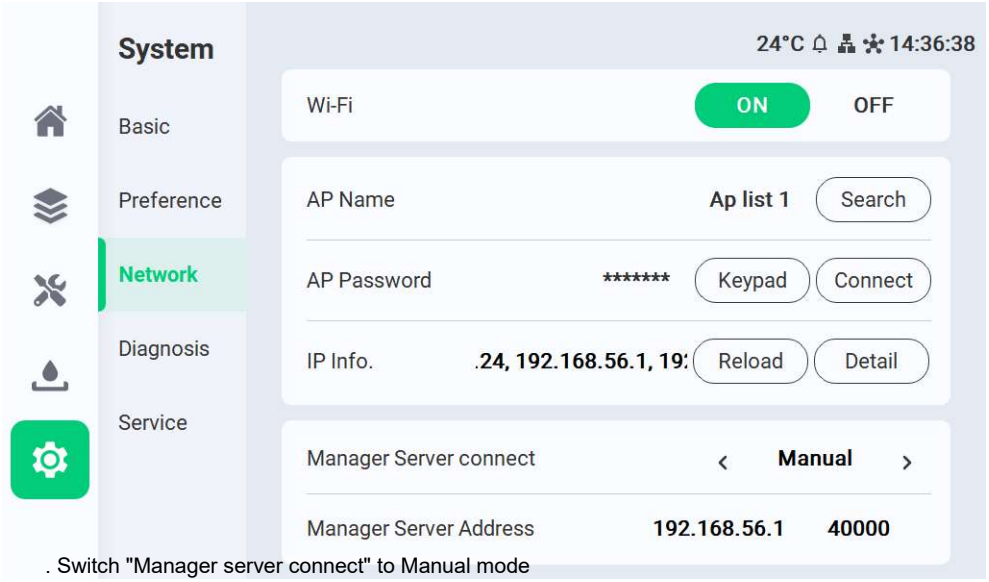
. AP Name Search



. Press “Keypad” to enter AP Password and click “Connect”

. When the IP information is displayed, the connection is complete.

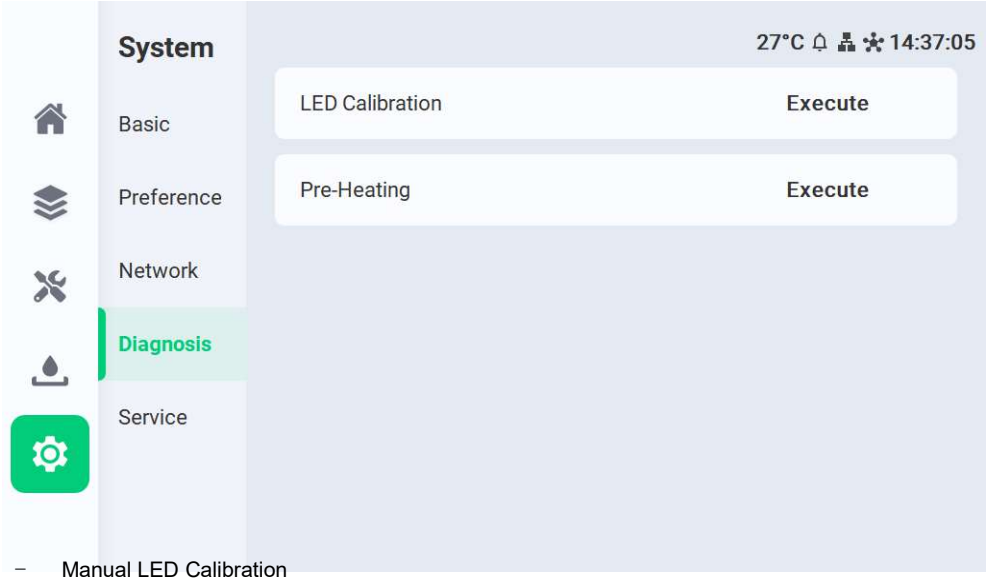
- Manual IP setting



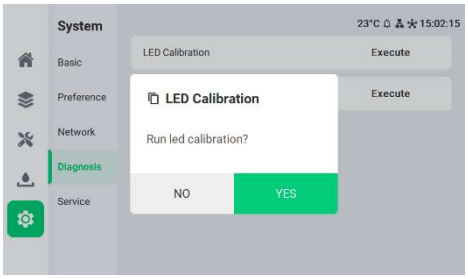
. Switch "Manager server connect" to Manual mode

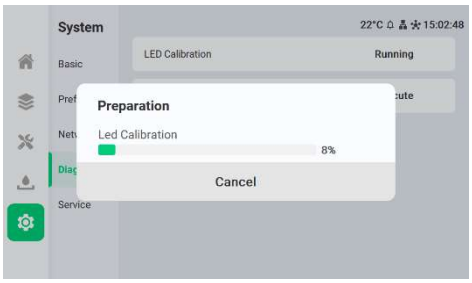
. Enter the server IP address in "Manager server address"

④ **Diagnosis**

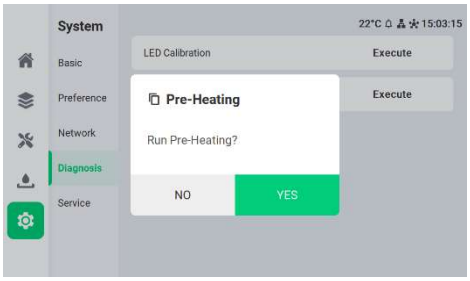


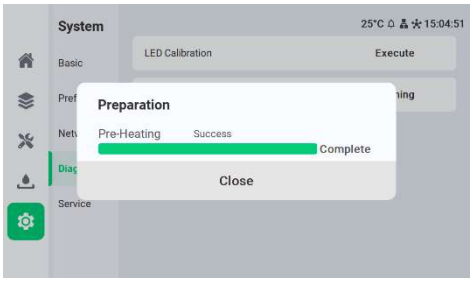
– Manual LED Calibration



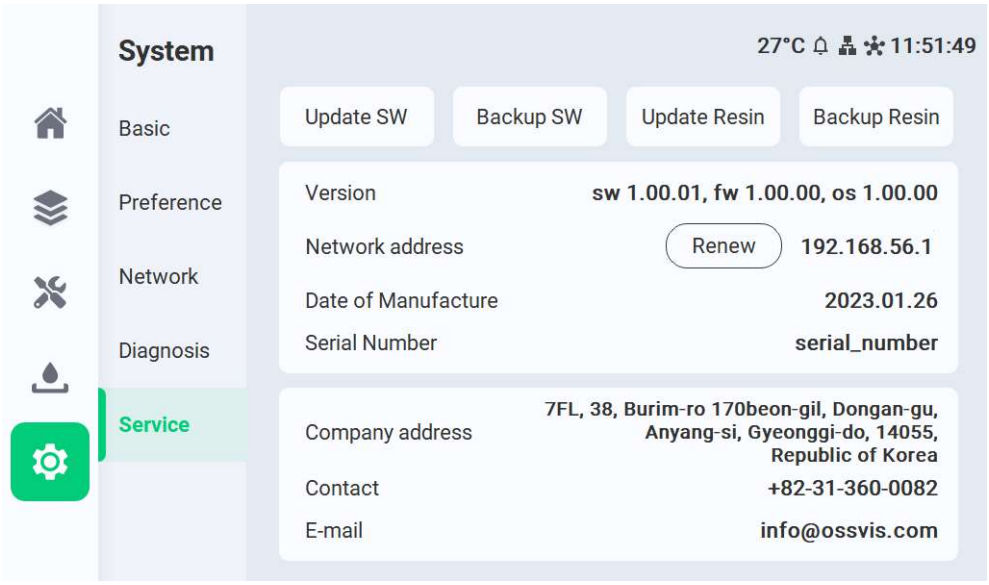


– Manual Preheating Calibration





⑤ **SYSTEM**



- S/W Update and Backup

  . S/W Back-up and Update via USB

- Resin Update and Backup

  . Resin Back-up and Update via USB

- SW version and network information

- Manufacturer information

6

Printing

6.1 Slicer program installation and setting

6.1.1 Install slicer program

- Install *.Zip support slicer

6.1.2 Set printer resolution and build size

- Resolution : X(1500), Y(2400)
- Build size: X(75), Y(120), Z(125)

⚠ If the Resolution and Build Size input values are incorrect, the dimensions of the printout may be different.

6.2 Create slicing file

6.2.1 Open STL file

- Open the file to print to the slicer program

6.2.2 create a supporter

- Create supports in place

6.2.3 Check the image of the slicing file and save it to the USB

- Set the save file format to *.zip
- Create folder on the USB: folder name (SLICE_FILES)

⚠ If the slicing file is saved in another path, Printing is not possible.

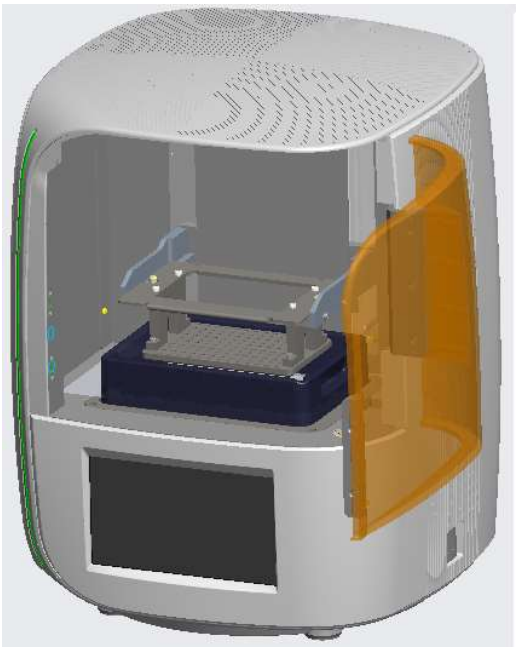
6.2.4 Insert the USB in which the slicing file is saved into the device



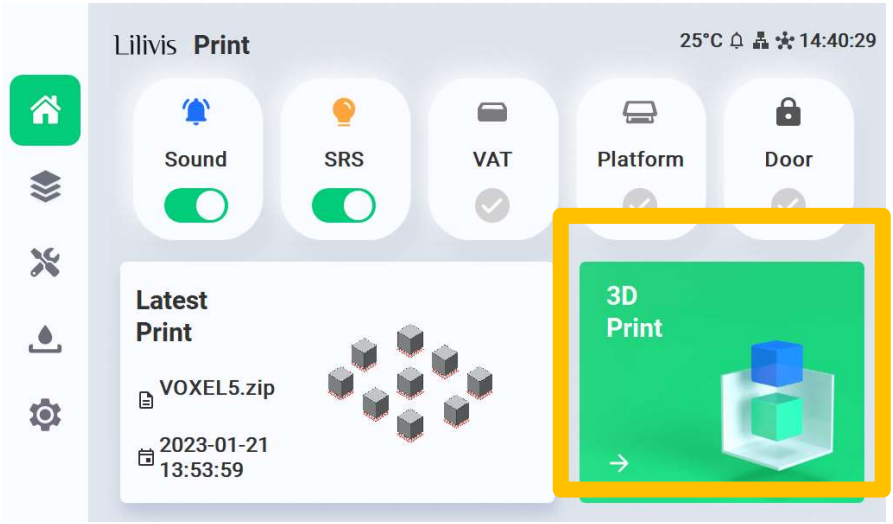
6.3 Printing

6.3.1 Ready to print

- Mount vat and platform inside the printer
- Filling VAT with Resin
- Mount Platform

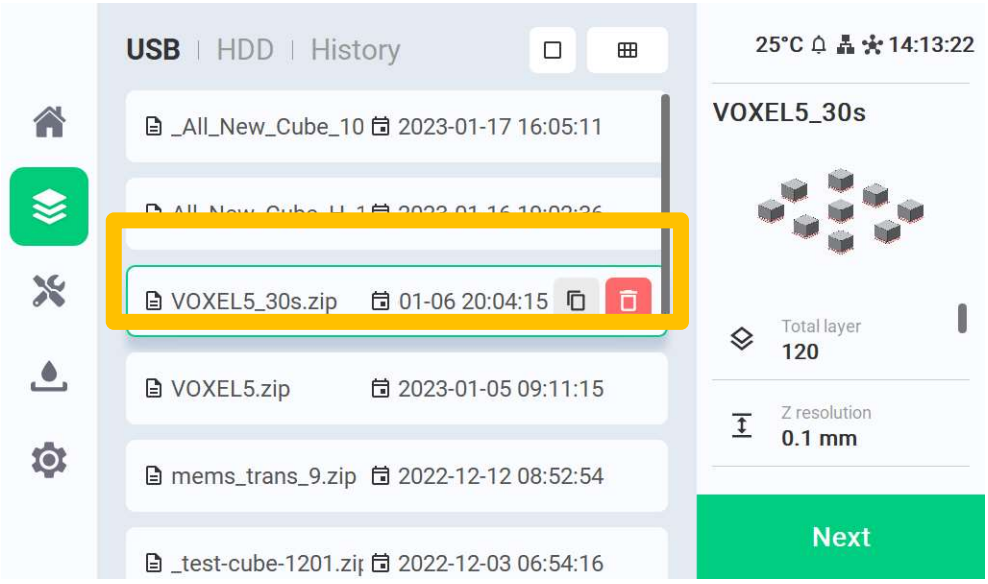


6.3.2 Click “3D Print”



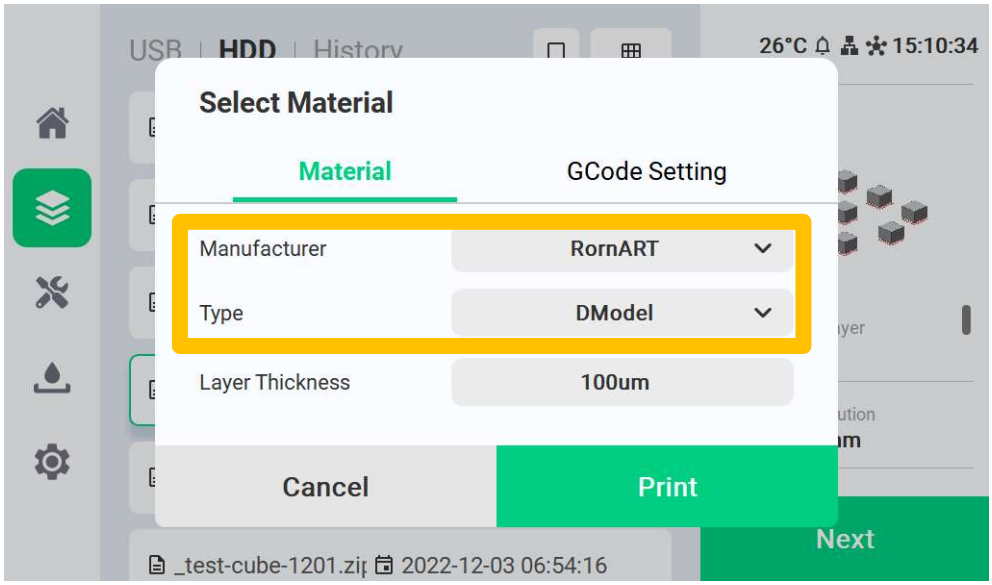
6.3.3 Select slicing file

- Go to USB tab and choose slicing file
  . Selected files can be copied to HDD
- Start printing with “NEXT” button

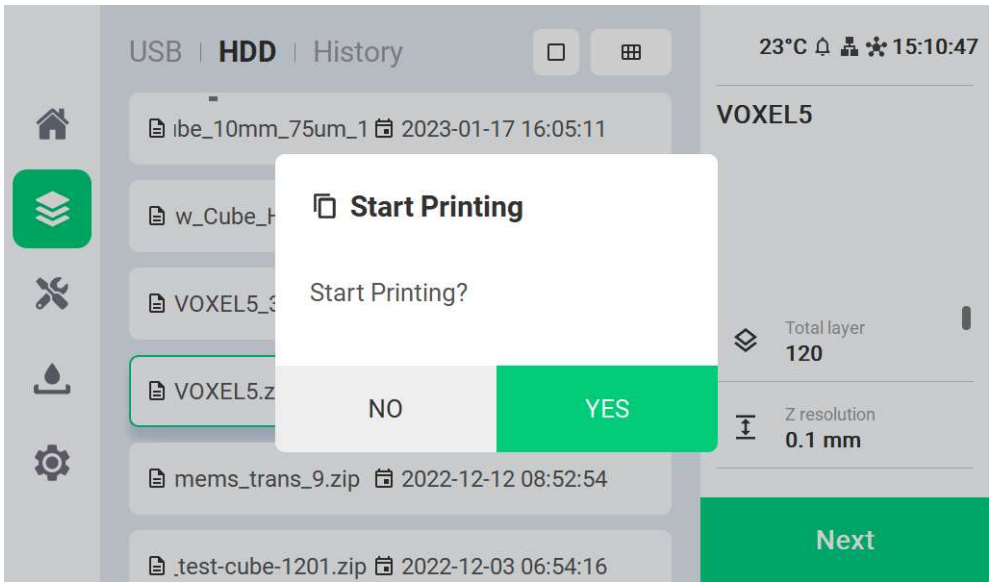


6.3.4 Select Resin

- Select resin manufacturer and type

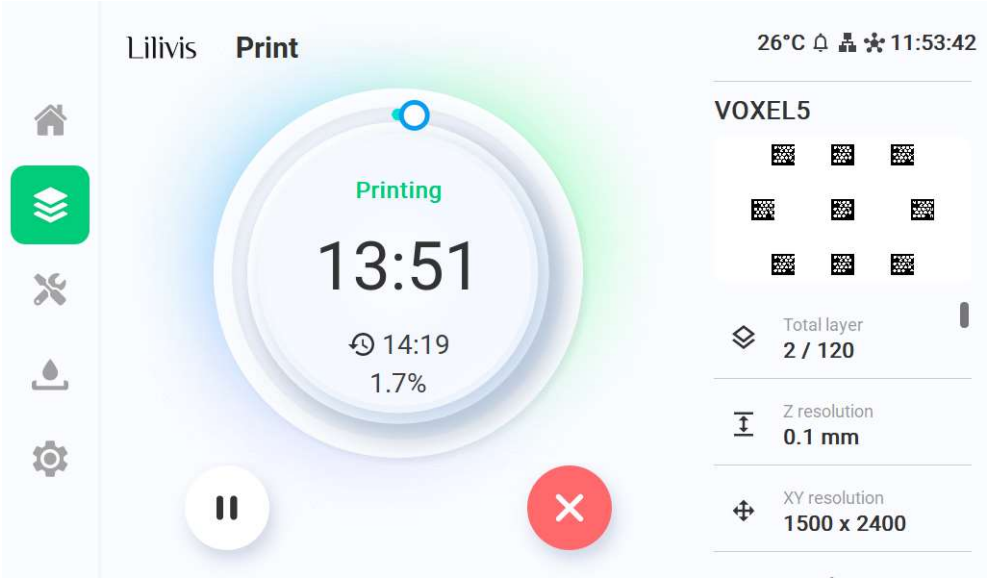


6.3.5 Printing



6.3.6 Printing monitoring

- Display printing information
- Possible to pause and cancel print



6.4 Post Processing

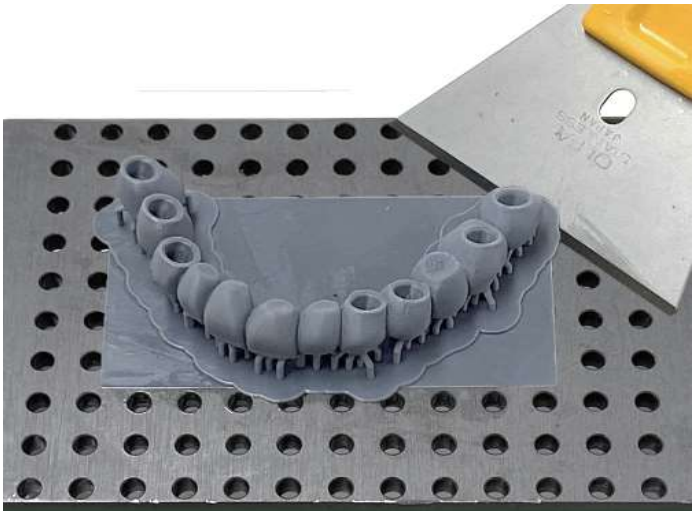
6.4.1 Remove platform from product

- Be careful not to drop resin inside the product.



6.4.2 Remove Printout

- Separate the output with a metal scraper
- Pay attention to the direction of the scraper blade
  (remove the output with the text on the handle visible)



6.4.3 Cleaning

- Clean printouts with IPA or ultrasonic cleaner



6.4.4 Remove foreign body

- Remove Cleaning liquid or foreign body with air blower



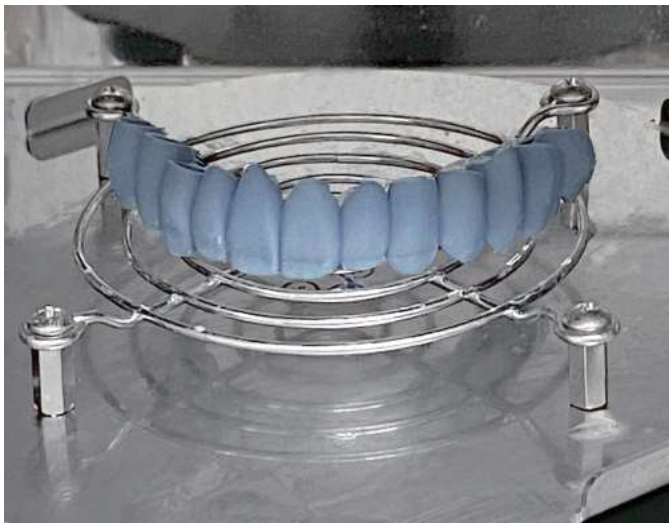
6.4.5 Remove Support

- Remove support with nipper



6.4.6 Printout Curing

- Cure the printout in a curing machine
- Curing time depends on the resin and curing machine.



7

Maintenance

7.1 Cleaning

7.1.1 Cleaning the inside of the product

- Foreign body and Resin in the product should be cleaned with an air blower or an alcohol swab.

7.1.2 Cleaning the outside of the product

- Product exterior and LCD panel should be cleaned with a dry, soft fabric

7.1.3 Cleaning Mask LCD

- After cleaning with an LCD screen cleaner, dry it with a soft, dry fabric.
- Never clean the LCD screen with acetone.

7.1.4 Cleaning VAT

- Use the plastic scraper or the brush to remove the foreign body on the Fep film
- Use ethanol to clean the Fep film and wipe it with a dry fabric

7.1.5 Cleaning PLATFORM

Use the metal scraper to remove the foreign body on the Platform then use alcohol and tissue to remove the remaining resin

7.2 Replace of fuses

The following fuse specifications must be observed during the replacement operation :

- Specification of fuse : 250V, 4A.

⚠ CAUTION

- Before cleaning your product, disconnect the power cord.
- Since the exterior of the product is easily scratched, be sure to use soft cleaning fabric.
- When cleaning the product, avoid spraying cleansing agent directly onto the product. This may result in the exterior being deformed or the print being removed.
- Since using a strong chemicals, may result in the discoloration or cracking of the product exterior, be sure to use the clean water only.

8

Troubleshooting Guide

If problems occur, Please review the following list and take remedial action as needed.

If you cannot solve the problem after checking the entire list, please contact HUVITZ
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Problem	Solution
Poor power contact	- The power cord may not have been connected properly. reconnect safely. - Power switch may not be on. Check power switch.
Can not start print	- Check if door is closed - Check the vat or platform mounting and direction
Print fails	- Check if the filling amount of resin is appropriate. - Check the leveling of the platform - Check if there is any debris inside the vat - Check vat or platform mounting and direction - Mix Resin well before use - Check the internal temperature of the instrument

9

SERVICE INFORMATION

If the instrument appears malfunctioning, it is highly recommended to check the instrument according to the troubleshooting procedure in chapter 8 of this manual.
If any problem persists or the instrument is damaged or malfunctioning, please follow the steps below.

- Please contact the local distributor in your province or country at first.
- Before calling to the local distributor, please be sure to check Model and Serial Numbers.
- The serial number is unique to this unit and printed on the rear side of the unit. It is recommended to fill up the following table as soon as you purchase our product.
- Please keep this manual as a permanent record of your purchase and keep your purchase receipt as your proof of purchase.

Date of Purchase: _____

Dealer's Name: _____

Dealer Address: _____

Dealer Phone No. : _____

Model No.: _____

Serial No.: _____

- If you can't contact with your local distributor, you can directly get in touch with the service department of the HUVITZ using the phone number and the address written in the below table.

How to Contact HUVITZ Co., Ltd

HUVITZ Co., Ltd.

38, Burim-ro 170beon-gil, Dongan-gu,
Anyang-si, Gyeonggi-do, 14055,
Republic of Korea

Tel: +82-31-360-0082
Fax: +82-31-428-9194
e-mail
cs@ossvis.com
http://www.ossvis.com