



PartPro150 xP 3D Printer

(Model No. 6L20X)

Operation Manual

Please always refer to the updated version of PartPro150 xP operation manual

<https://pro.xyzprinting.com/>

For safe and correct use, be sure to read the Safety Precautions before using the machine.



Document History

Date	Description	Version
2019-12	Initial Release	1.0



INTRODUCTION

The PartPro150 xP is a stereolithography 3D printer that uses UV laser to cure photosensitive resins. During the printing process, the UV laser traces the cross-section patterns on the surface of the resin layer by layer. The nature of laser and UV resin presents parts with fine details and smooth surface finish.

DISCLAIMER

This manual is designed for users to understand how to use the PartPro150 xP printer in a safe manner. Please read through all sections especially the safety guide carefully before unpacking, operating, replacing, and removing any part of this product.

INTENDED USE

- User must read and understand the contents of this installation and user manual as following. Failure to read the manual may lead to personal injury, inferior results or damage to the PartPro150 xP.
- Before performing any operations on the machine and/or packaging of the various parties should read this entire instruction manual. This contains important information for the safety of persons engaged in routine maintenance, the persons involved in the use and operation of the machine.
- This manual refers to the machine on which the model number is indicated on the title. XYZprinting reserves the right to make technical changes on the machines and manuals without prior notice.
- No part of this manual may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of XYZprinting. For this entire user guide, please contact authorized reseller or XYZprinting customer service for providing.
- Requests for additional copies of this manual should be directed to customer service of XYZprinting.

LIMITATION OF WARRANTY AND LIABILITY

XYZprinting is responsible for the device in its original configuration. Any changes to the configuration of the machine must be performed or authorized by the XYZprinting technical department. XYZprinting is not responsible for the problems and warranty dues to the use of not original spare parts or printing materials.

TRADEMARK

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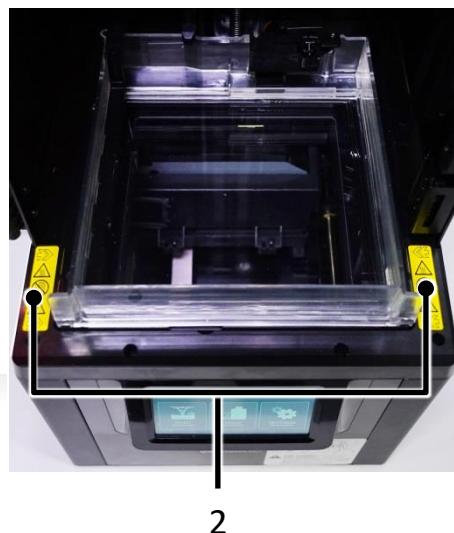
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SAFETY AND COMPLIANCE

IMPORTANT SAFETY PRECAUTIONS

Please read through all sections especially the safety guide carefully before unpacking, assembling, operating, replacing, and removing any part of this product. Please also comply with the instructions of relevant safety precautions.



Label		Safety Notice
1	WARNING CLASS 3B LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED AVOID EXPOSURE TO THE BEAM 警告 保護蓋未蓋妥且安全裝置受到篡改而失效時，將導致3B等級雷射輻射外洩之風險，請避免直接暴露於雷射光束下。 警告 保護蓋未蓋妥且安全裝置受到篡改而失效時，將導致3B等級雷射輻射外洩之風險，請避免直接暴露於雷射光束下。 警告 カバーを確実に閉じられていないまたは安全ロックが改ざんにより失効した場合、クラス3Bレーザー光が漏れる恐れがあります。人体をレーザー光に曝さないようにしてください。 경고 개방 및 내부 잠금 장치 고장 시 클래스 3B 레이저의 방사선 노출 위험 광선에 대한 노출 금지 AVERTISSEMENT RAYONNEMENT LASER DE CLASSE 3B EN CAS D'OUVERTURE ET D'INTERVERROUILLAGES DÉFECTUEUX ÉVITER TOUTE EXPOSITION AU FAISCEAU WARNING LASERSTRAHLUNG DER KLASSE 3B, WENN OFFEN UND VERRIEGELUNGEN DEFECT SIND KONTAKT MIT DEM STRAHL VERMEIDEN ADVERTENCIA RADIACIÓN LASER DE CLASE 3B AL ABRIR Y ANULAR LOS INTERBLOQUEOS EVITE LA EXPOSICIÓN AL HAZ AVVERTENZA RADIAZIONE LASER DI CLASSE B IN CASO DI APERTURA ED ESCLUSIONE DEGLI INTERBLOCCHI EVITARE L'ESPOSIZIONE AL RAGGIO	WARNING - CLASS 3B LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO THE BEAM. Keep the covers securely closed during printing. Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.
2		CAUTION: HOT SURFACE The metal frame holding the resin tank gets hot to keep resin temperature around 25℃. Do not touch the metal frame. Contact may cause burn.



SAFETY AND REGULATION

Please carefully read this notice, all safety precautions, and comply with safety rules when using, operating, unboxing this product, replacing or removing any components, or maintaining this product. For more information related to the PartPro150 xP 3D Printer or XYZprinting, visit the official website (<https://pro.xyzprinting.com/>) or contact a sales representative.

HANDLING AND OPERATING PRECAUTIONS

- Only trained personnel may operate the machine.
- Do not try to disassemble, modify the product, otherwise fire, electric shock, or damage may result.
- Do not open the covers or remove the screws or parts other than instructed in the user manual, otherwise fire, electric shock, or damage may result.
- Laser hazard. Do not stare at the laser light as it may cause damage to the eyes.
- If you notice any strange noises, smoke or strange odors, shut down the power of the product immediately and contact service for further instruction.
- Do not try to disable or cheat any sensors on the product, otherwise injury or electric shock may result.
- Be sure to read the Material Safety Data Sheet of each material and follow the handling instructions before using the product.
- Wipe off any printing material spilt on any components of the product immediately with a dry cleaning wiper or dampened with water or ethanol, or the spillage may cause malfunction of the product or fire.
- Make sure to set the power switch to the off position and remove the power cord before transporting the device.
- Only use the grounded power adapter and power cord supplied with the printer to prevent possible electrical shocking.

WORK PLACE REQUIREMENTS

- Avoid exposing the product to direct sunlight or other UV radiation. The printing materials inside the product may get cured when exposed to external UV source and result in malfunction.
- Please do not place any containers with water on (or around) the product; if liquid spills out or into the machine, it may lead to risk or safety concerns.
- Place and use the printer in a well-ventilated area. The process of printing will produce a small amount of non-toxic odor.
- Prohibit use of fire, sparks and heat source.
- For a stable printing performance, do not touch or move the product during production.
- This machine is not suitable for use in location where children are likely to be present.

RECOMMENDED PROTECTIVE EQUIPMENT

- Chemical-resistant gloves.

PRECAUTIONS BEFORE OPENING THE PROTECTIVE COVERS

- Always wear the chemical-resistant gloves to prevent direct contacting with printing materials.



NOTICES ON HANDLING / RECYCLING /DISPOSAL PRINTING MATERIALS

- Keep the storage of the printing materials locked up and out of the reach of children.
- Always wear the chemical-resistant gloves to prevent direct contacting with printing materials.
- Wasted resin can be pulled into plastic bag and cured under sunlight or UV light source. Cured resin can be discarded as office waste.
- Be careful not to spill the resin material.
- Do not mix the resin with incompatible materials.
- Do not drain the printing materials or waste solution into sewer systems or with household wastewater.
- Follow local regulations for disposing the wipers dampened with the printing materials.

PRINTING MATERIAL

- The stability of printing quality is affected by temperature and humidity. Please ensure that the recommended operating conditions are adhered to (Operating temperature 20-30°C (68-86 °F)/humidity 40-80% RH)

PRINTING PROCESS

- Keep the covers securely closed during printing.
- The printing quality may be affected if resin temperature is changed due to opening the cover(s).

LASER MODULE

- The Laser Module will emit lasers only after the printing starts.
- The Laser Module will automatically shut down if any of the protective cover is open.

NOTE ON POWER SUPPLY

- Do not use with damaged cord or plug. To unplug grasp the plug, not the cord. Do not handle plug or machine with wet hands. Turn off the power switch before unplugging.
- Do not run the machine over cord. Keep cord away from heated surfaces.
- If the system is left in idle mode for an extended amount of time, turn off the main switch.



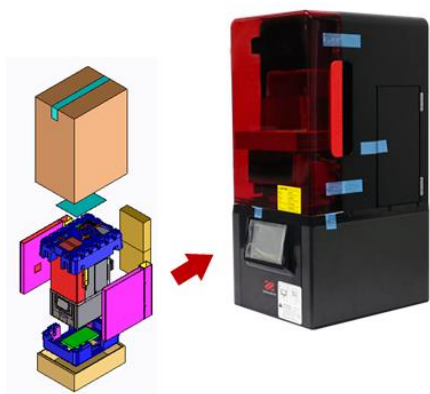
1. UNPACKING AND INSTALLATIONS

UNPACKING

Unpack the product follow instructions closely. Damage to parts may result if the procedure is not followed.

Keep original packaging material in the event of sending the unit for service or repair.

1. Remove all external packing materials, plastic bag and tapes on the covers.



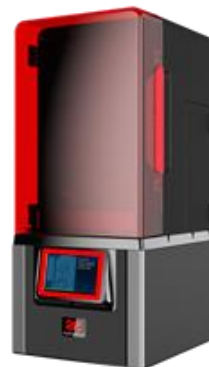
2. Get the power adapter and the power cord from the accessory box in the package.



3. Connect the power adapter, power cord to the printer and switch on the printer.



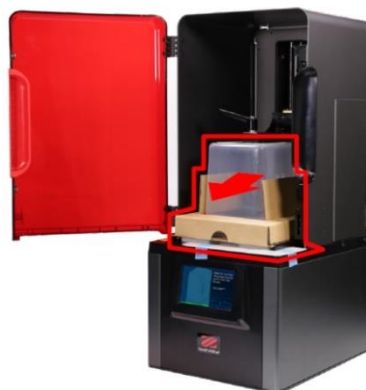
4. Follow the instructions on the printer screen and complete the initial system setup, including the settings of the display language and wireless connection (optional).



5. Lift up the printer from the front and release the printing module lock by pushing it to the right.



6. Open the front cover and remove the packing materials behind the cover. After removing the cardboards, the protective pad and the cover sheet over the glass, close the cover and tap [v].



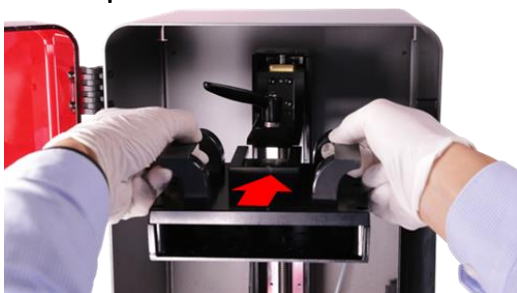


7. Move up the platform rack by tapping the following options on the screen:

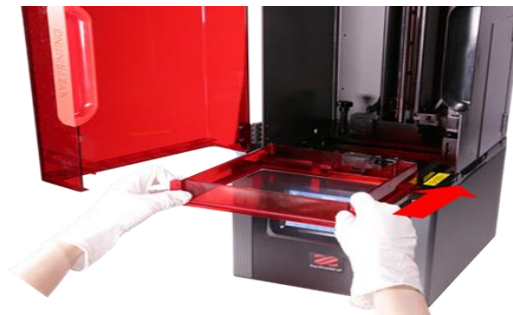


8. Complete the hardware installations. Tap [>] on the screen after installing each item.
Refer to p.6 to p.8 for detailed instructions on the installation.

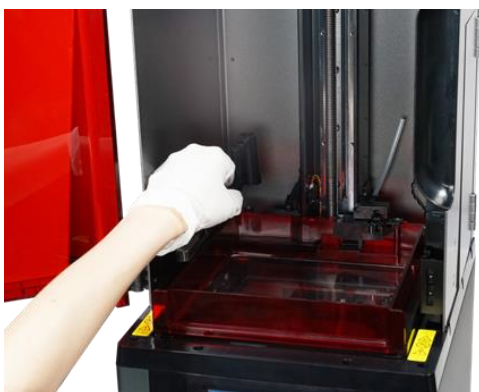
• Install the platform.



• Install the resin tank.



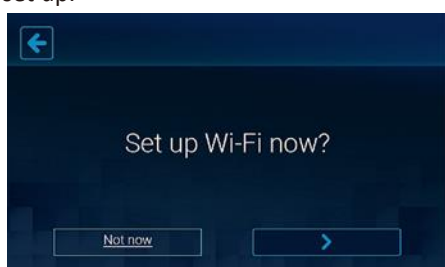
• Install the wiper.



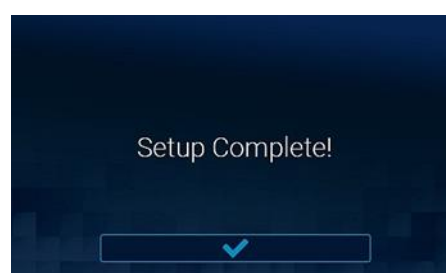
• Install the resin bottle.



9. Set up Wi-Fi connection or tap [Not now] to skip the set up.



10. Tap [v] to complete the initial setting.





HARDWARE INSTALLATION

Complete the following installation after unpacking the product. Be sure to follow the installation instructions closely. Damage to parts may result if any item is installed incorrectly.

The printer is ready for production after completing the following installation.

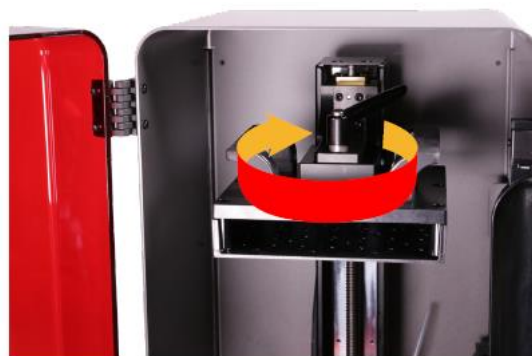
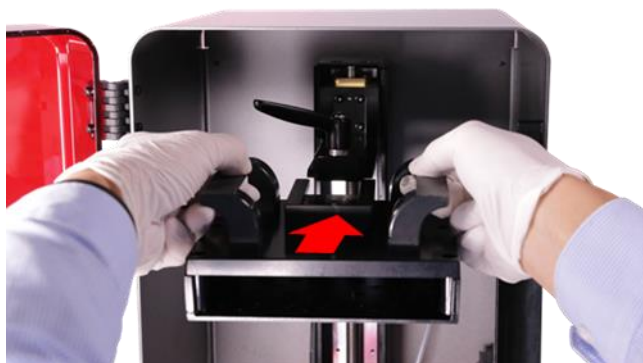
■ To install the platform:

1. Open the front cover.
2. Make sure the bolt handle connecting to Z-axis is loosen.



3. Hold the platform and mount it onto the platform rack. Push all the way until reaching the end.

4. Tighten the bolt handle securely.



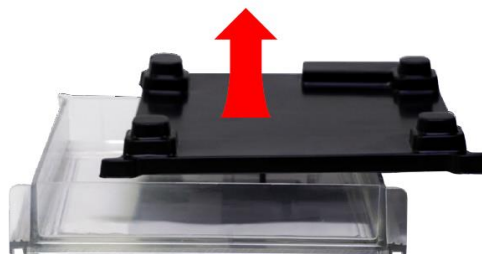


■ **To install the resin tank and the wiper:**

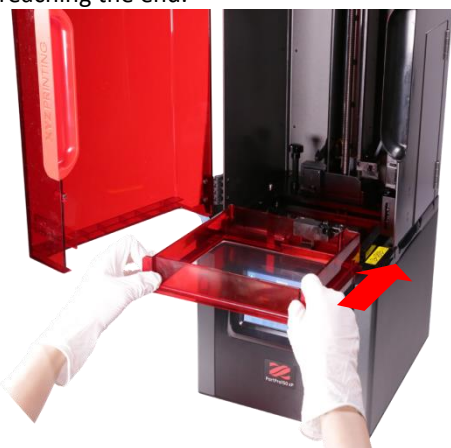
1. Open the front cover.



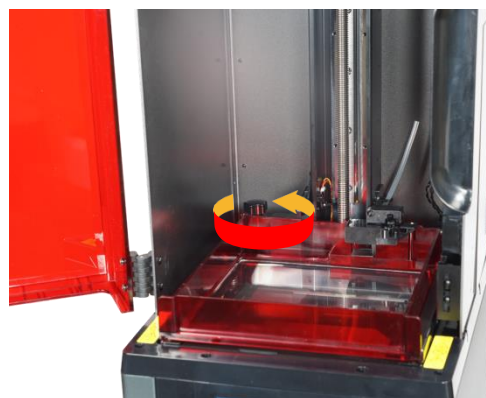
2. Unpack the resin tank from the package and remove the tank lid



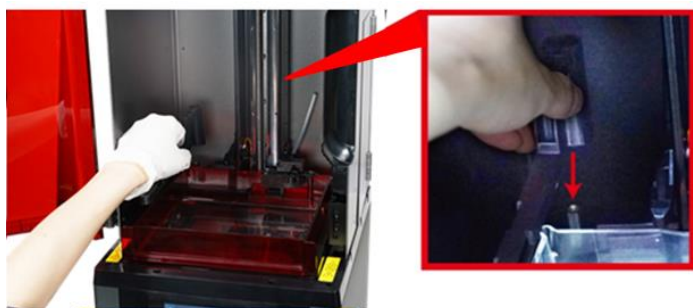
3. Insert the tank into the tank slot. Push all the way until reaching the end.



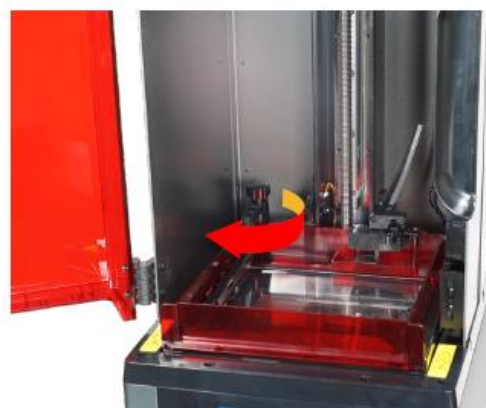
4. Loosen and remove the fixing bolt over the wiper shaft.



5. Mount the wiper on the wiper shaft.



6. Insert the fixing bolt to the wiper raft and fasten the bolt.





■ **To install the Resin Bottle:**

1. Shake the resin bottle well to ensure even color. For the material with dense pigment, you may need to tilt the bottle at 45° for 5 minutes, and then shake the bottle for around 5 minutes.



2. Assemble the nozzle cap and the inner tube.



3. Replace the sealing cap with the assembled nozzle cap.



4. Push to open the side cover.



5. Insert the resin bottle into the bottle slot.



6. Attach the exhaust tube to the thin nozzle. Find the black filling tube on the left side of Z-axis and attach it to the thick nozzle. Push the tubes all the way down.



7. Close the side cover.



Be sure to run the filling tube from the back of Z-axis to the nozzle cap while installing the cartridge. The platform will be trapped if the tube goes from the front.



To check the resin information

The printer detects the information of the resin installed through the ID tag at the bottom of the resin cartridge. Printing is not allowed when the cartridge is empty or when the material installed mismatch the resin selected while exporting.

[Note: resin level is not available on the printer screen for the beta test. It will be added soon.]

You can read the resin information on the printer screen and through the software XYZprint AM^{UV}:

- Using the printer screen:

From the main menu, tap [RESIN].



- Using XYZprint AM^{UV}:

From the main menu, tap [RESIN].



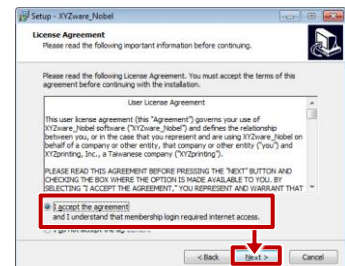
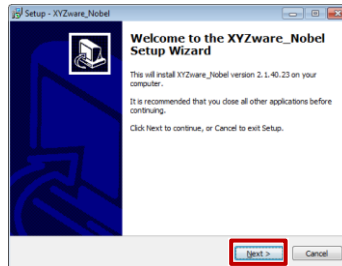


SOFTWARE INSTALLATION

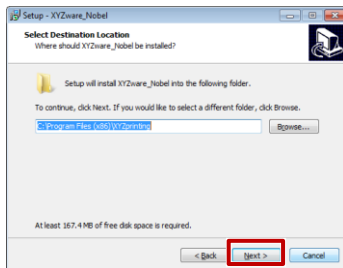
“XYZprint AM^{UV}” should be installed on the service PC for preparing the files for production.

■ To install the software:

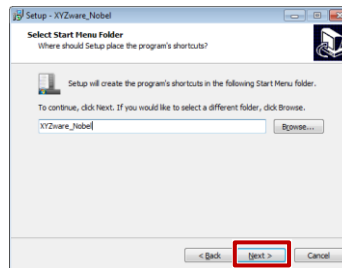
1. Double-click on the installer [XYZware_***.exe].
2. Click [Next >] to initial the installation.
3. Review the license agreement, select [I accept the agreement] if appropriate, and press [Next >].



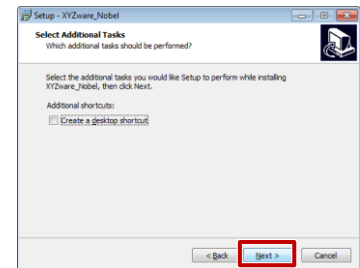
4. Check if the default Installation folder is accepted, and click [Next>].



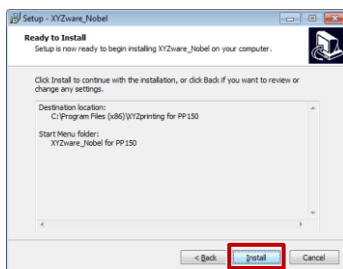
5. Check if the default Start Menu Folder is accepted and click [Next>].



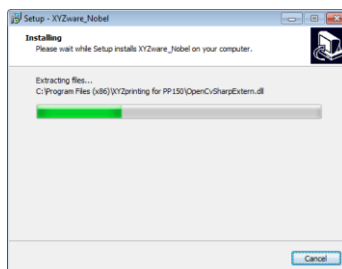
6. Check if you want to add the desktop icon and click [Next>].



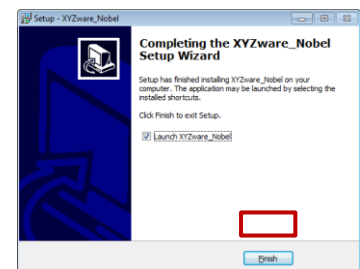
7. Review the installation settings and click [Install].



8. Wait while the installation is in progress.



9. The installation is complete when below screen appears. Click [Finish] to close the setup wizard.

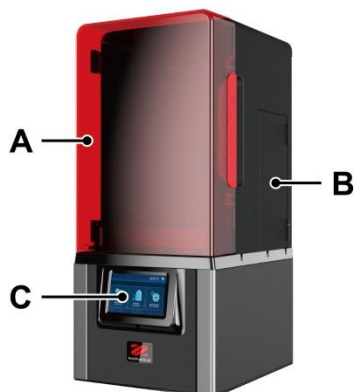




2. PRODUCT OVERVIEW

APPEARANCE

■ Front View - Exterior

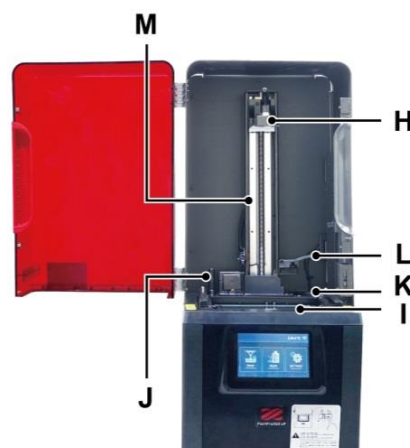


Component	Description
Front Cover	Open this cover to take out printed model or perform regular maintenance. Keep the front cover securely closed during printing.
Side Cover	Access the resin bottle through the side cover.
Touch Panel	Contains a screen and keys for machine control.

■ Rear View



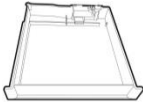
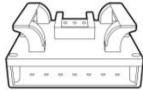
■ Front View - Interior



Component	Description
D Ethernet Port	Attach the Ethernet cable to the port to connect the printer to the Ethernet.
E USB Wire Port	Attach the USB cord to the port to connect the printer to the PC.
F Power Jack	Connect the supplied power adapter to the socket to power on the printer.
G Power Switch	Press the switch to power on or off the printer.
H Platform Rack	The printing platform to hold the printed parts during printing.
I Tank Slot	The tank slot holds the resin tank on the printer. Insert the resin tank into the slot while completing the installation.
J Wiper Shaft	The wiper shaft holds the wiper on the printer.
K Cartridge Slot	Resin bottle should be inserted into the slot to connect to the refilling system.
L Filling Tube	Resin runs through the filling tube when auto-refill is enabled.
M Pumping Tube	Air flows into the resin bottle through the pumping tube to push out the material when filling.



ACCESSORIES LIST

Item Name	Image	Quantity	Description	Packing Location
Resin Tank		1 pc	The resin tank holds the resins for printing.	②
Wiper		1 pc	For wiping away the debris in the resin in the tank and for stirring the resin to ensure the evenness of temperature and color.	①
Platform		1 pc	Resin gets cured on the platform when exposed to laser light.	③
Rinse Bucket		1 pc	Use the rinse bucket to wash the printed parts in alcohol.	④
Scraper		1 pc	For removing printed parts from the platform.	①
Gloves		5 pairs	Gloves should be worn to avoid direct contacting with the printing materials.	①
Starter Resin		500g/bottle	500g of printing material for starting your production.	③
Nozzle Cap		1 pc	For attaching filling tubes on the printer to the resin cartridge.	①
Inner Tube		1 pc	Attach the inner tube to the nozzle cap	①
Power Adapter		1 pc	The external power supply of the printer. Always use the bundled power adapter on the product.	③
Power Cord		1 pc	For connecting the printer to the electricity supply. Always use the bundled power cable on the product.	③
USB Wire		1 pc	For connecting the printer to the PC.	③

① Over the top cushion	② In the tank box	③ In the accessory box	④ Behind the front cover
			



INSTALLATION SUGGESTIONS

Installation Environments

Make sure the installation site follows below conditions:

- Power requirements: AC 100~240V 50/60Hz 60W
- Ambient temperature: 20-30°C (68-86°F)
- Ambient humidity: 40-80% RH non-condensing

Optimal Placement

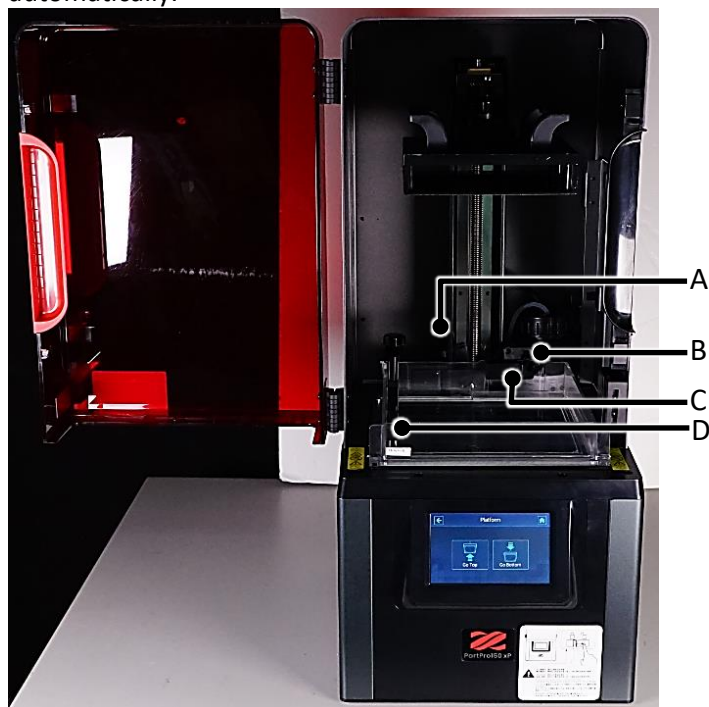
Follow below guidelines when positioning the printer:

- Place the printer on a leveled and solid surface, or resin level detection may be inaccurate.

FEATURES

Resin Refilling

The printer refills the resin tank automatically before printing and when low tank level is detected. The auto-refilling function eliminates the hassle of manual refilling and prevents incomplete prints due to material shortage. Once the resin bottle is attached to the refilling system, the detecting system monitors the resin level automatically.



Component		Description
A	Filling faucet	Resin flows out from the filling faucet to the tank when the resin level is low.
B	Level sensor	The level sensor detects the resin level in the tank by reading the positioning of the floater.
C	Floater	The floater floats on the surface of the resin in the tank.
D	Wiper	For stirring the resin in the tank.

Wiper

The wiper stirs the resin in the tank to ensure the evenness of resin temperature and color. The movement of the wiper is noticeable once the printer is powered on, even when the system is idle. This ensures that the resin in tank is ready for printing all the time.



SPECIFICATIONS

General	
Technology	SL (Stererolithography)
Light Source	UV Laser λ 405nm
Maximum Build Area (W x D x H)	150 x 150 x 200 mm (5.9 x 5.9 x 7.9 inch)
XY-axis Resolution	130 microns
Z-axis Resolution	25 / 50/ 100 / 200* microns (*Material dependent)
Connectivity	USB Wire/ WiFi / Ethernet
Product Dimensions (W x D x H)	280 x 337 x 595 mm (11 x 13.3 x 23.4 inch)
Product Weight	13Kg (28.66lbs)
Operation Software	XYZprint AM ^{UV}
Printing /File Types	.stl format / XYZ format (.3ws / .3wn)
Operating System	Window 10/ 10 Pro (64-bit) Mac OSX 10.12 and up
Power Requirement	AC 100~240V 50/60Hz 60W
Minimum System Requirements	
Memory (RAM)	8GB or more
Hard Drive	1GB or more free space for installation
Graphic Card	Support OpenGL 2.1+
Operating Environment	
Operating Temperature	20-30°C (68-86°F)
Operating Humidity	40-80% RH



SUPPORTED FILE FORMAT

The system accepts below file formats. The source files should be converted into .stl format in your CAD program. The source files should be sliced and converted into “.3wn” formats for production. For file conversion, please utilize the software “XYZprint AM^{UV}”.

File Format	Description
STL Format	The file format is native to CAD software. It is widely used for 3D printing. Please always export your design files into .stl format in your CAD software to print on this printer. You can also save the objects on the platform into a single stl file.
3WS format	.3ws is a proprietary file format for the printer, for saving all models on the workspace as a project with the data of geometry, orientation, placement, dimensions and support settings. You can further edit each object in the .3ws file.
3WN Format	.stl files need to be sliced into layers for printing. The sliced files are in .3wn format. You will always prepare .3wn files with “XYZprint AMUV”.

USER INTERFACE

The printing system is operated using the touch panel on the printer and the software “XYZprint AM^{UV}”. You will need to switch between the different interfaces based on your operation.

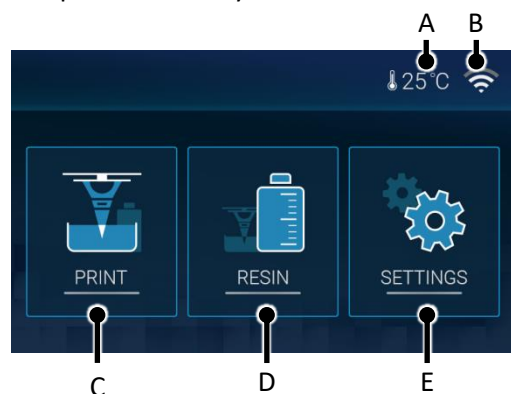
Refer to below table for the functions available on each user interface:

Category	Function	Touch Panel	XYZprint AM ^{UV}
File Preparation	Preparing the files		●
Printing Controls	Printing new files		●
	Printing from the history	●	
	Pausing the production	●	
	Resuming a paused task	●	
	Canceling the production	●	
File Management	Deleting files on the printer	●	
System Configuration	Configuring printer settings	●	
	Configuring the connectivity	●	
	Updating printer firmware	●	
Info Display	Production History	●	
	Printer Status	●	●
	Material Status	●	●
	System Version	●	●
	Machine Statistics	●	



TOUCH SCREEN

The printer screen shows the following menu when the system is ready. You can use the touch screen to print from the history, adjust the printer settings, and view the information on the material installed and resin temperature and system data.



The control panel functions are categorized under the following options in the main menu:

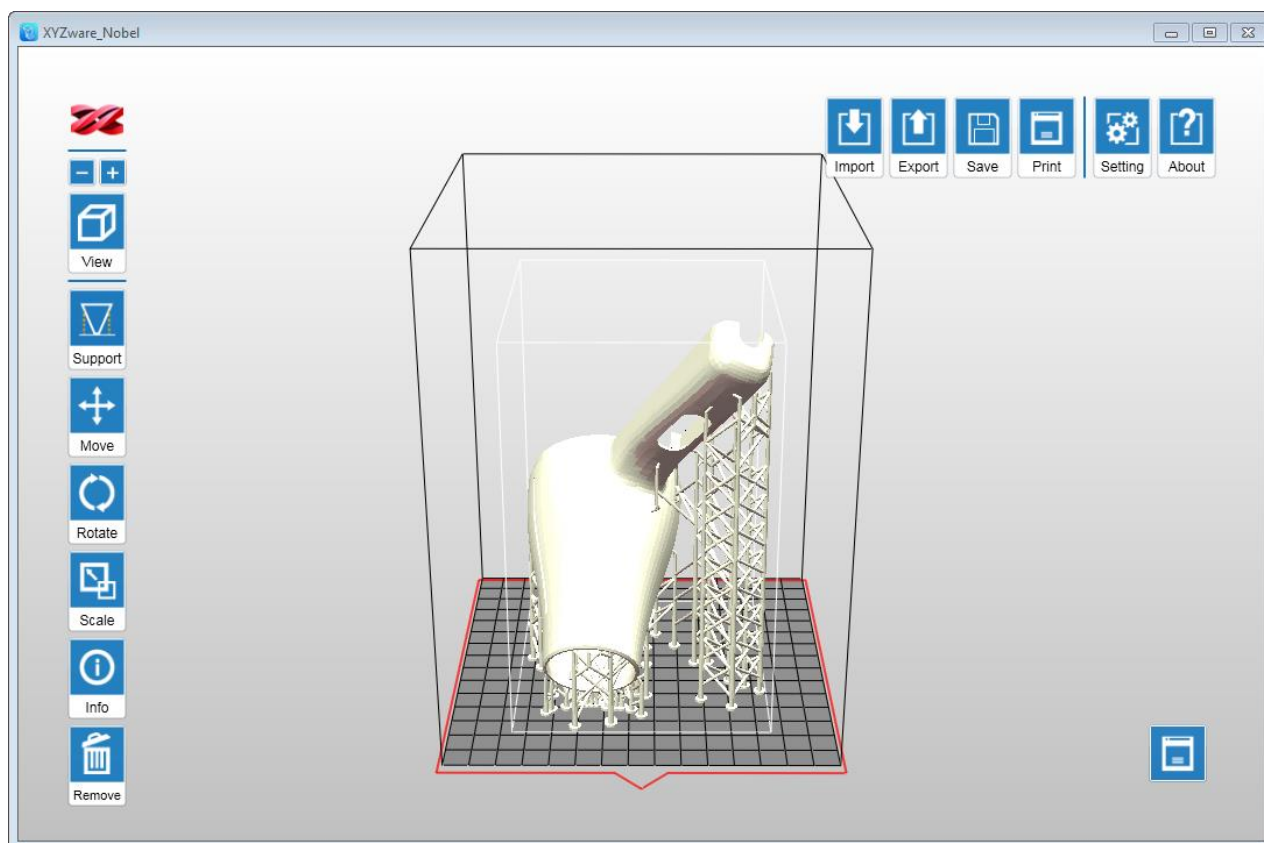
Main Menu		Function
A	Resin Temperature	Current temperature of the resin in the tank in degree Celsius. If the resin temperature is lower than 25°C, the heating system will be triggered.
B	Network Connectivity	An icon will be shown here when the wireless or Ethernet connection is enabled. The icon also indicates the status of the connection. The icon is also the shortcut to connectivity settings. Tap the icon to jump to the setup page. When computer connect with printer through the Wifi, the right side top of the main menu will appear the client IP icon.
C	PRINT	Press the icon to view the printing history. You can also initial printing from the history with this function.
D	RESIN	Press the icon to view detailed information on the resin cartridge, including the material type and resin model. You can change the setting of resin-refilling here.
	Refill	Use this function to enable and disable the auto-refilling function.
E	SETTINGS	The menu provides the control of platform movement, brightness and timeout of the screen, sound volume, display language, connectivity settings, and show the system information.
	Platform	The function is used to move the platform to the top, to the bottom, or to the location for packing.
	General	For setting up display brightness and timeout, audio volume, display language, wireless and Ethernet configuration.
	System	For checking system information, system version, MAC address and the accumulated print time.
	Service Mode	The function is password-protected and limited to servicing personnel only.



XYZPRINT AM^{UV}

“XYZprint AM^{UV}” is the software for preparing the files for production. Be sure to install “XYZprint AM^{UV}” before proceeding to production.

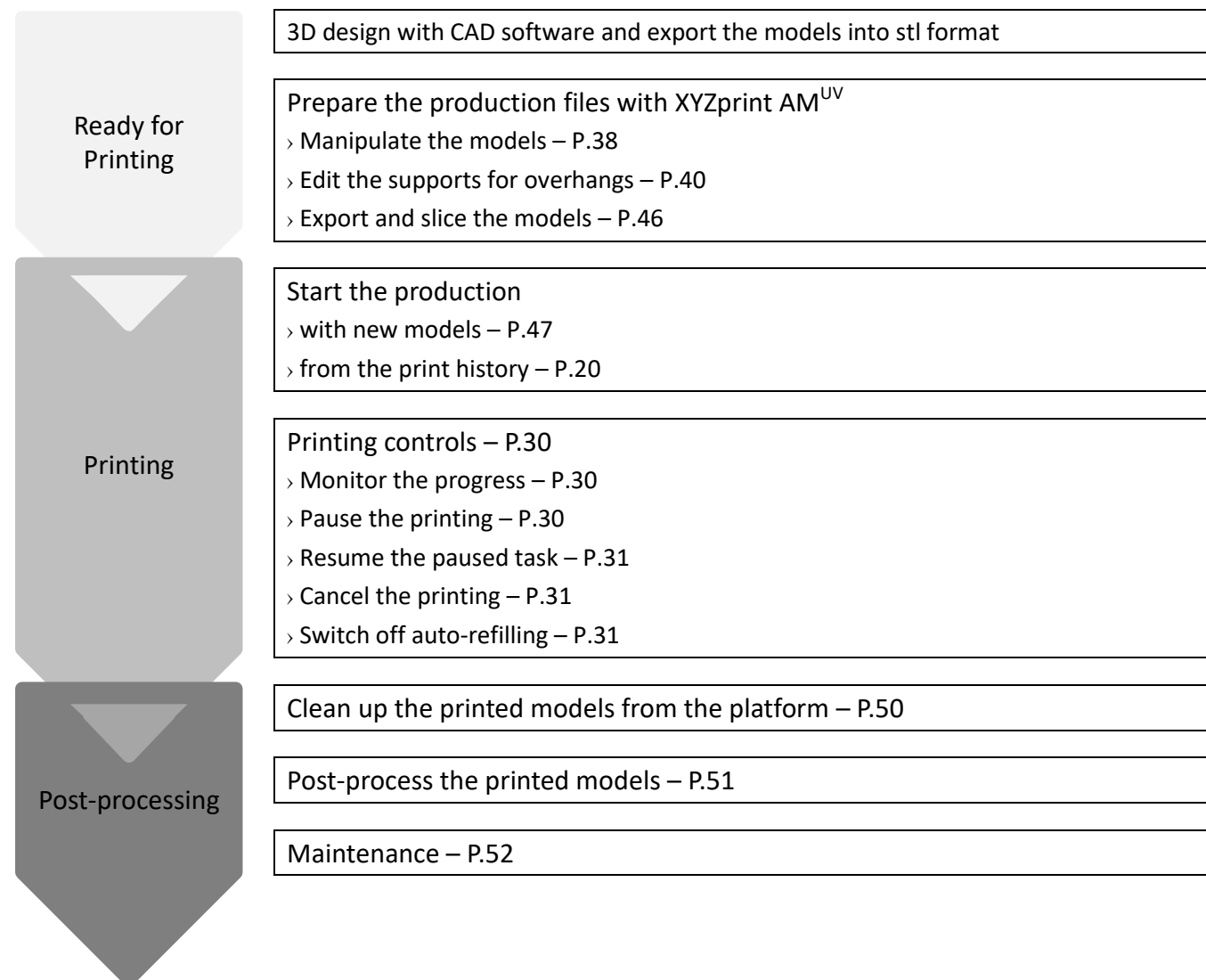
To install “XYZprint AM^{UV}”, download the software installer from: <http://bit.ly/2FhfmLU>





OVERALL WORKFLOW

The overall workflow for using PartPro150 xP is illustrated in the following chart. Refer to the explanation of each step in the relevant chapter.





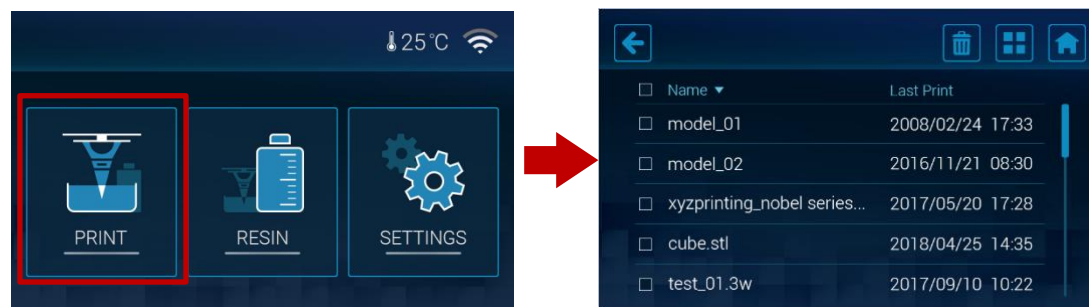
3. OPERATING THE PRINTER

This chapter introduces all options on the printer screen.

PRINT MENU

To print a new file, the file should be transmitted from the software “XYZprint AM^{UV}”. Refer to Chapter 5 for starting a new print.

Using the touch screen on the printer, you can initial the production with the last 10 print jobs from the print history. Tap on [PRINT] in the top menu to launch the printing history.



Structure of the PRINT menu



Item		Description
A	Exit	Press the icon to exit the print history.
B	Delete entry	After selecting the entries to delete (with item E or F), tap this icon to delete them from the system.
C	Switch view	The screen displays history entries with list and tiles view. Tap this icon to switch between the views.
D	Home	Press the icon to go back to the top menu.
E	Select all	Tap the checkbox the select all entries.
F	Single selection	Tap the checkbox by the left to select a single entry.
G	History entries	Tap the entry to view the thumbnail of the print job.



Start printing from the history

- From the main menu, go to [PRINT], tap a history entry from the list view or thumbnail view.

[List View]



[Thumbnail View]



Tap  to enlarge the thumbview.

- Review the printing settings. Tap [PRINT] to initial the production.



[PRINT] button is disabled while the system is reading the slicing information from the history. Allow a few second before tapping the [PRINT] icon.

If the resin bottle installed doesn't match the resin type of the selected file, the system will highlight the issue with a warning sign . Production is prohibited in this case.

Managing the printing history

- From the main menu, go to [PRINT], and select a single entry (tap the checkbox before each entry) or select all entries (tap the checkbox by the header).

[List View]



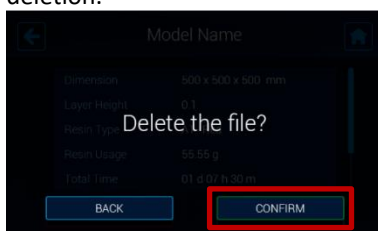
[Thumbnail View]



- Tap the [Delete] icon.



- Tap [Confirm] to proceed to deletion.



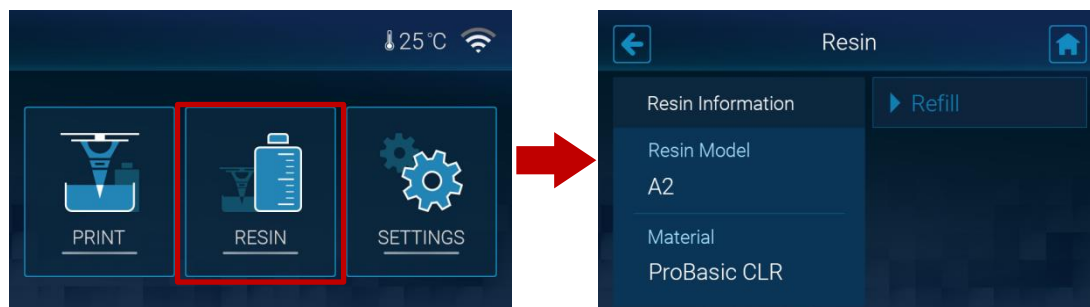


RESIN MENU

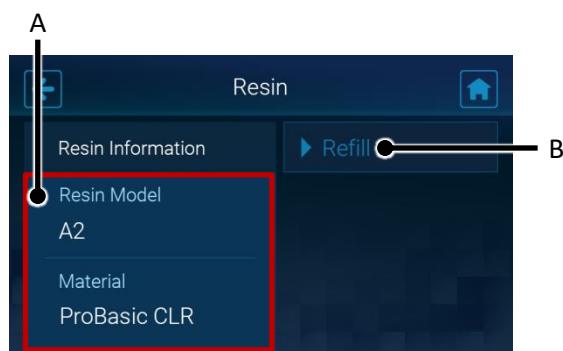
Resin menu provides detailed information on the resin cartridge, including the material type and resin model and the switch of auto-filling function.

When the material level is running low, a warning sign  will be shown on the RESIN icon.

Tap on [RESIN] in the top menu to launch the information and settings related to the printing material.



Structure of the RESIN menu



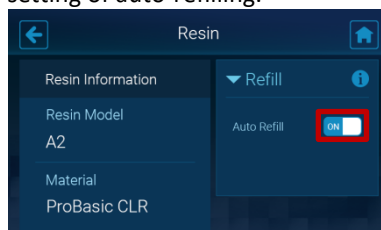
Item		Description
A	Information of the resin cartridge	The section shows the resin model and material type of the cartridge installed on the printer.
B	Switch of the refilling function	The function provides the switch of the auto-refilling function.

Switching on/off auto-refilling

When Refill is enabled, the printer will fill the resin tank automatically before printing and when low tank level is detected.

Auto-refill will be switched off when the timeout expires. Timeout may be caused by an empty resin bottle. Please replace the resin bottle before enabling the function.

1. From the main menu, go to [RESIN] > [Refill].
2. Tap the switch to adjust the setting of auto-refilling.

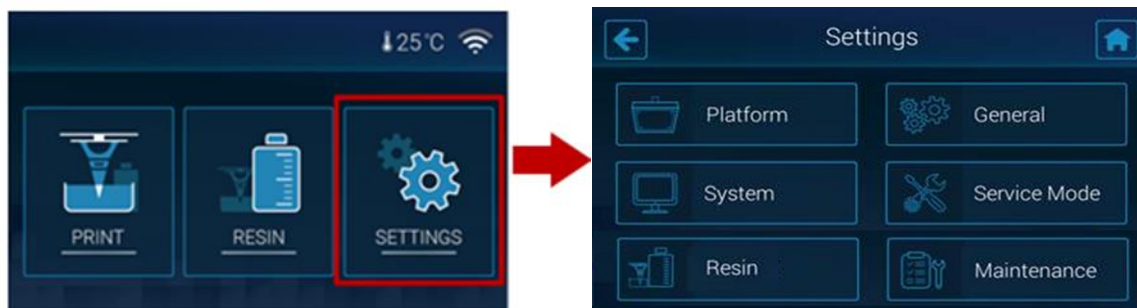




SETTINGS MENU

The menu provides the control of platform movement, brightness and timeout of the screen, sound volume, display language, connectivity settings, and show the system information.

Tap on [SETTINGS] in the top menu to go to system settings.



Structure of the SETTINGS menu



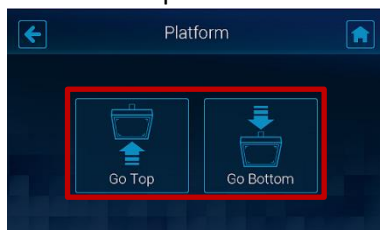
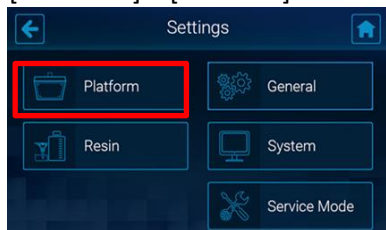
Item		Description
A	Position of the platform	Use this function to move the platform
B	General settings	For setting up display brightness and timeout, audio volume, display language, wireless and Ethernet configuration.
C	System information	For checking system information, system version, MAC address and the accumulated print time.
D	Service mode	The function is password-protected and limited to servicing personnel only.
E	Resin	This function is to show the resin status.
F	Maintenance	This function is to show the maintenance items.



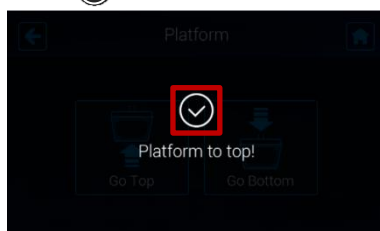
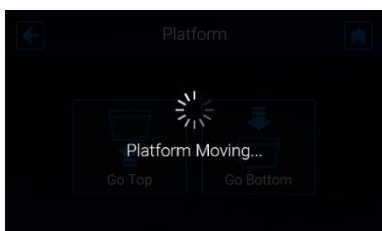
Moving the platform

The system controls the movement of the platform in normal operating. In the case that you will need to move the platform to the top or the bottom, follow the procedures below.

1. From the main menu, go to [SETTINGS] > [Platform].
2. Select [Go Top] to move the platform to the top or select [Go Bottom] to move the plate to the bottom.



3. Wait while the platform is moving.
4. Press  to exit the function.



Adjusting the display brightness and timeout

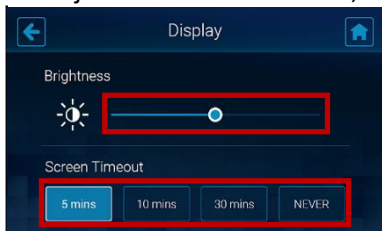
Screen backlight enhances the readability of the content of the display. You may adjust the brightness and screen timeout based on your preferences.

1. From the main menu, go to [SETTINGS] > [General].
2. Select [Display].

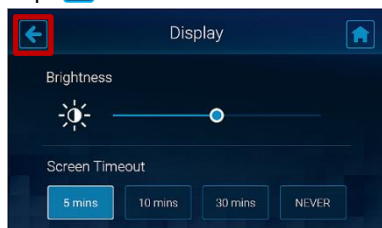


3. To adjust the screen brightness, drag or tap on the slide bar directly. Drag the slider left to decrease the brightness, and vice versa.

To adjust the screen timeout, select the options at the bottom.



4. Tap  to exit the function.

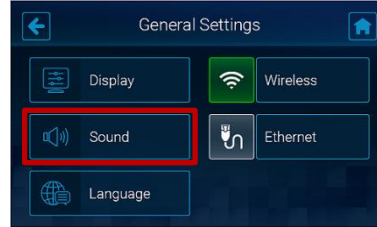
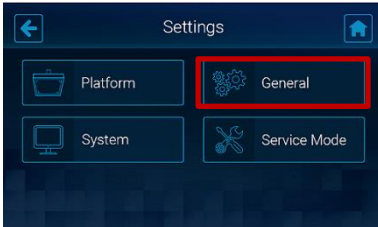




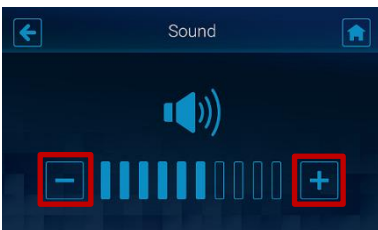
Adjusting the audio volume

The embedded speaker alerts your operation on the screen and the status of production. You may adjust the audio volume or even mute the speaker.

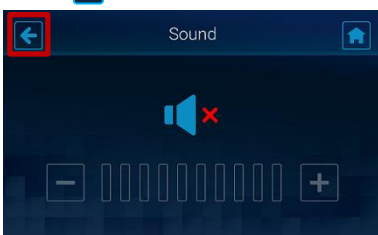
1. From the main menu, go to [SETTINGS] > [General].
2. Select [Sound].



3. Tap the adjustment buttons on 2 sides or tap on the volume bar to adjust the audio volume. To mute the speaker, keep tapping  until the speaker icon change to the mute sign  or tap the speaker icon directly.



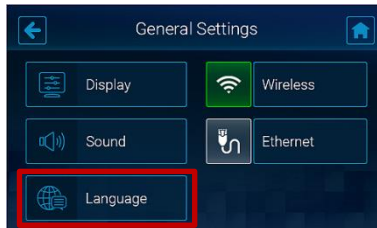
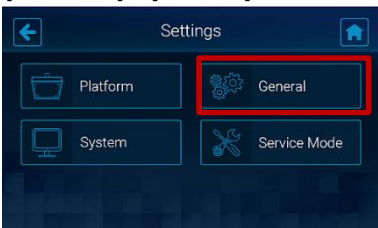
4. Press  to go back to the previous page.



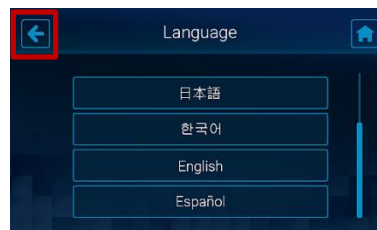
Changing the display language

The display language is selected during initial setup. The setting can be changed anytime with the following procedure.

1. From the main menu, go to [SETTINGS] > [General].
2. Select [Language].

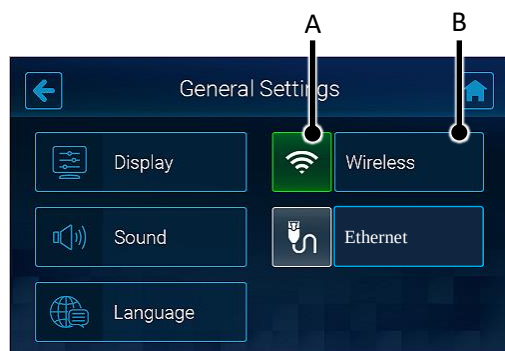


3. Tap a desired display language on the language list. The setting will be applied immediately.
4. Tap  to exit the function





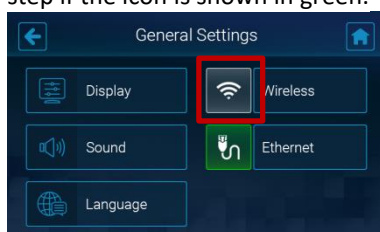
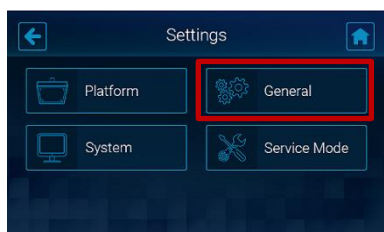
Structure of the Wireless icon



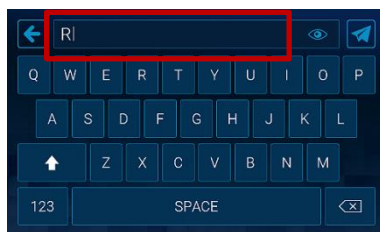
Item		Description
A	Switch of Wireless connectivity	Tap on this icon to switch on/off the Wireless connectivity. The icon displays in different color for showing current status.
		 Wireless configuration enabled.
		 Wireless configuration disabled.
B	Wireless Setup	When Wireless configuration is enabled with the icon shown in green, you can press this button to set up the Wireless connection.

Connecting to a Wi-Fi network

- From the main menu, go to [SETTINGS] > [General].
- Tap the wireless connection icon to enable the function. Skip this step if the icon is shown in green.
- Tap [Wireless] to enter the setting.



- Tap a WiFi SSID from the list of available Wi-Fi networks. To rescan available network, tap .
- Enter the password for the secure Wi-Fi network, and tap  to join the network.
- Wait while the system is connecting to the selected Wi-Fi network.



- Connection is set up when a tick appears at the left side of the selected network. Tap  to exit the function.

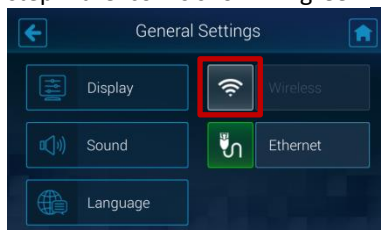
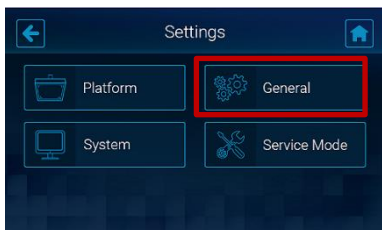


 The Wireless communication is only effective when your computer is connected to the same network, Wireless and Ethernet connectivity are unable to go live at the same time. Ethernet will be disabled automatically when Wireless connectivity is enabled.

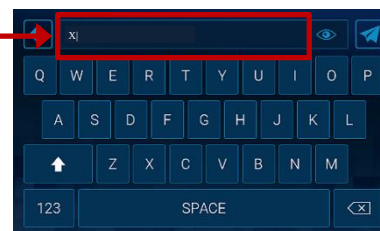
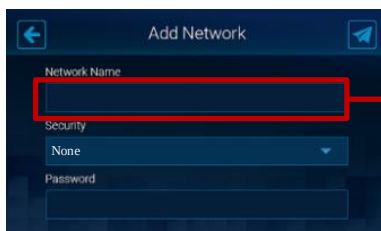


Connecting to a hidden Wi-Fi network

1. From the main menu, go to [SETTINGS] > [General].
2. Tap the wireless connection icon to enable the function. Skip this step if the icon is shown in green.
3. Tap [Wireless] to enter the setting.



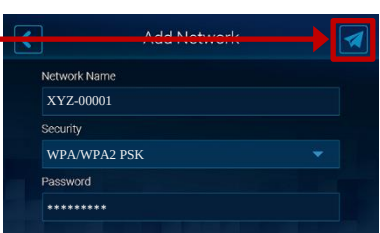
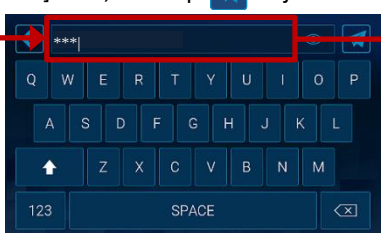
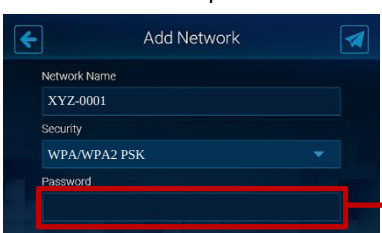
4. Swipe to the bottom of the list of available Wi-Fi connections, and tap [Add Network].
5. Enter the exact name of the network in the [Network Name] field and tap to go back to the setting page.



6. Tap [Security] dropdown list and choose the security type. If you're not sure about the security of your network, check with your network administrator.



7. Enter the network password in the [Password] field, and tap to join the network.



8. Connection is set up when the hidden network is added to the list with a tick appears at the left side. Tap to exit the function.

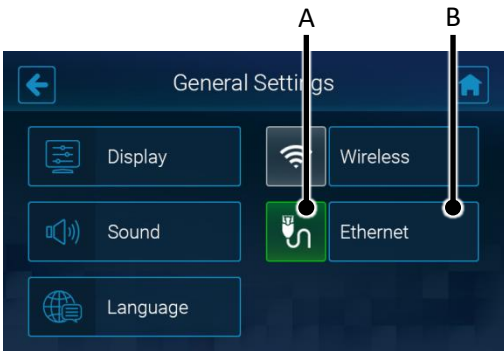


9. Once Connect to Wifi, the right side top of the main menu will appear a client IP address icon.





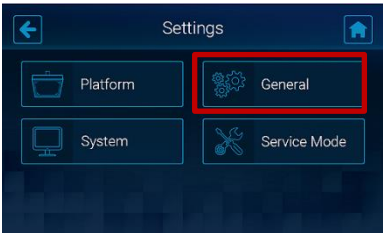
Structure of the Ethernet icon



Item		Description
A	Switch of Wireless connectivity	Tap on this icon to switch on/off the Ethernet connectivity. The icon displays in different color for showing current status.
		 Ethernet configuration enabled.
		 Ethernet configuration disabled.
B	Ethernet Setup	When Ethernet configuration is enabled with the icon shown in green, you can press this button to view the auto-assigned IP address or set up the Ethernet connection.

Enabling Ethernet connection

1. Plug in the Ethernet cable to the Ethernet Port at the back of the printer.
2. From the main menu, go to [SETTINGS] > [General].



3. Tap the Ethernet connection icon to enable the function. Skip this step if the icon is shown in green.



4. The printer will obtain an IP address automatically. Tap [Ethernet] to view the IP settings. When IP settings are available in this page, the network is ready.



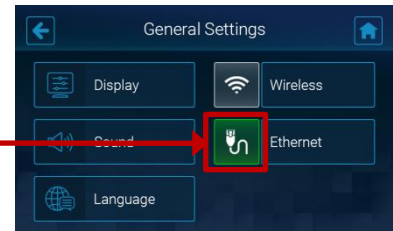
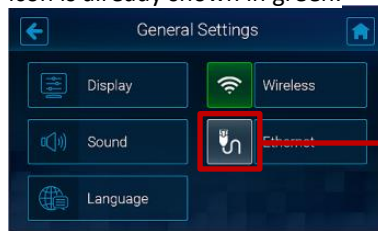
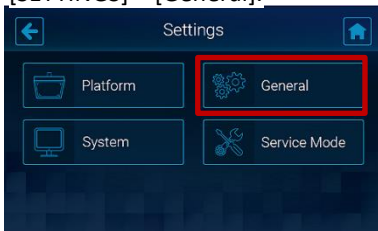


Manually configuring Ethernet network

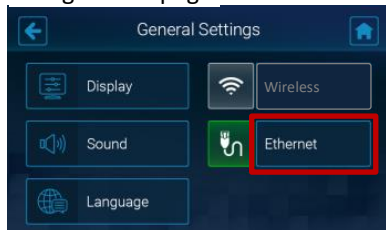
The printer is set to obtain an IP address automatically by default. However, if you are using the printer on a network without DHCP, or want to prevent the printer's IP address from changing, you may specify IP address for the printer. Check the corresponding settings with your network administrator.

Proceed to the following procedures after plugging the Ethernet cable to the Ethernet port at the back of the printer.

1. From the main menu, go to [SETTINGS] > [General].
2. Tap the Ethernet connection icon to enable the function. Skip this step if the icon is already shown in green.



3. Tap [Ethernet] to go to the configuration page.
4. Tap [Static IP] to switch to manual configuration



5. Set up [IP], [NetMask], [Gateway], and [DNS] respectively. Tap each field to open up the on-screen keyboard.

In each input screen, tap the IP address field and input the IP address using the on-screen keyboard and tap  to apply the setting. Repeat the process until you have setting up the IP address of each item and tap  to exit the function.



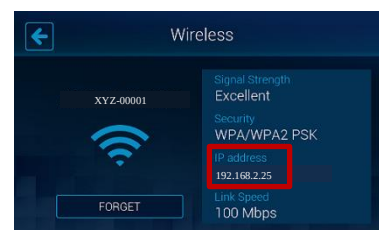


Viewing the IP address

In the network configuration with several printers, you may identify the printer with its serial number and IP address. The printer is assigned an IP address when connected to the wireless and Ethernet network.

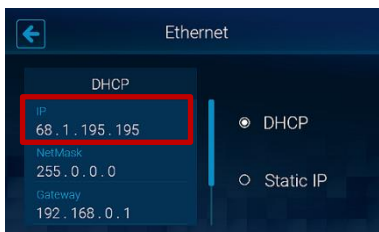
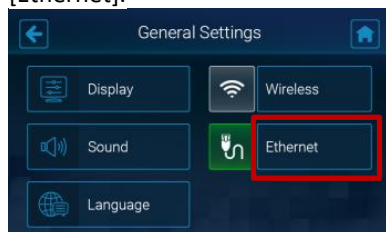
• When on the wireless network:

1. From the main menu, go to [SETTINGS] > [General] > [Wireless].
2. Tap the connected network in the list of available network.
3. Find the IP address in the right section.



• When on the Ethernet network:

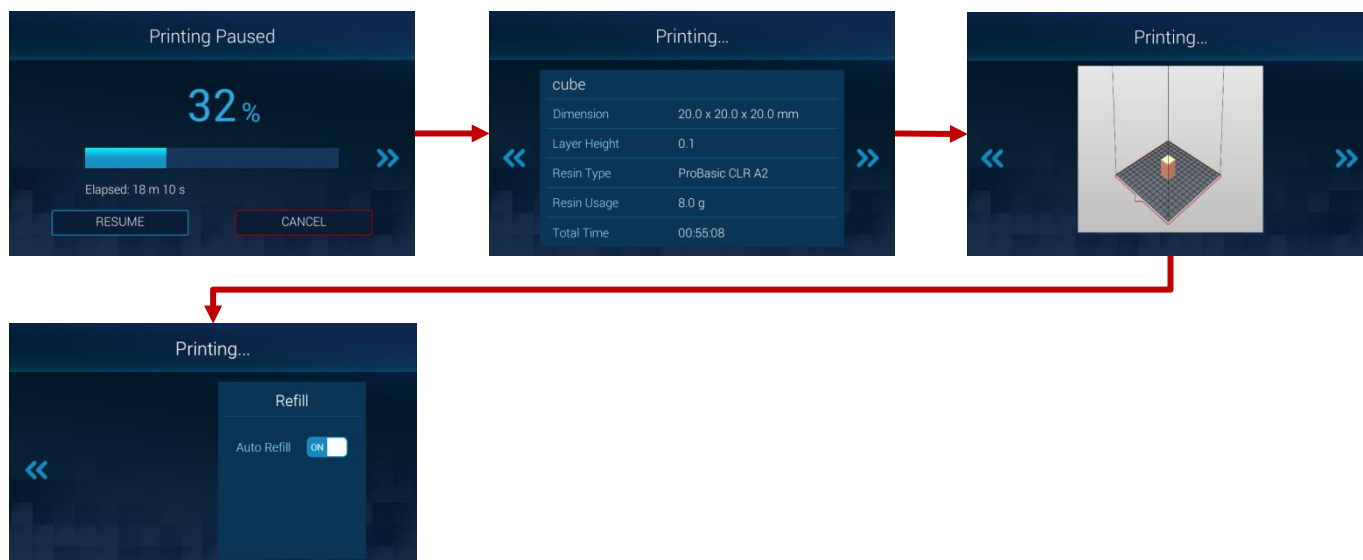
1. From the main menu, go to [SETTINGS] > [General] > [Ethernet].
2. Find the IP address in the left section.





PRINTING CONTROLS

When the printing has begun, you can use the printer screen to check the printing progress and the information of the file in production, and control the printing. Tap << or >> to switch between different pages.



Monitoring the progress

Through the printer screen, you will find the information of printing progress, elapsed time, slicing settings and the estimated total print time. Tap << or >> to switch between different pages.

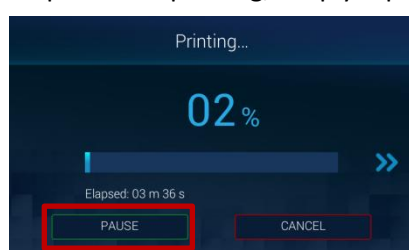


Item		Description
A	Printing progress	The printing progress is displayed in percentage with a progress bar.
B	Elapsed time	The elapsed time is the amount of time that passes from the beginning of the printing.
C	Slicing settings	Slicing settings are the options selected during exporting the file with XYZprint AM ^{UV} .
D	Total print time	This is the estimated total time to complete the printing.

Pausing the printing

Printing can be paused if necessary.

To pause the printing, simply tap the [PAUSE] button.





Resuming the paused task

Before resuming the paused task, make sure the resin bottle is installed correctly and the front and the side covers are closed securely. Tap the [RESUME] button and wait while the system resuming the printing.

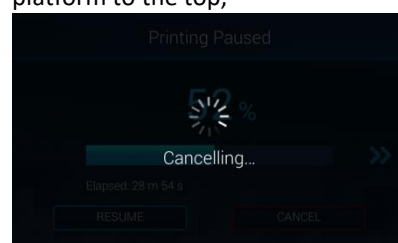
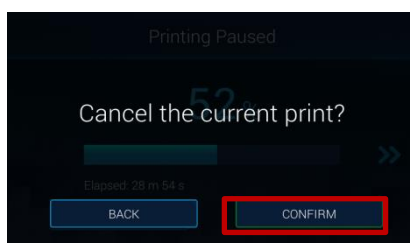
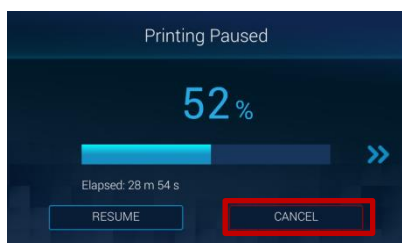


Canceling the printing

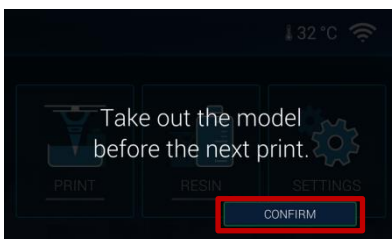
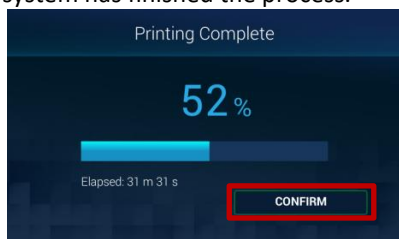
You can cancel the printing anytime if necessary.

To cancel the printing:

1. Tap [CANCEL].
2. Tap [CONFIRM] on the next page.
3. Wait while the system is processing the request and moving the platform to the top,



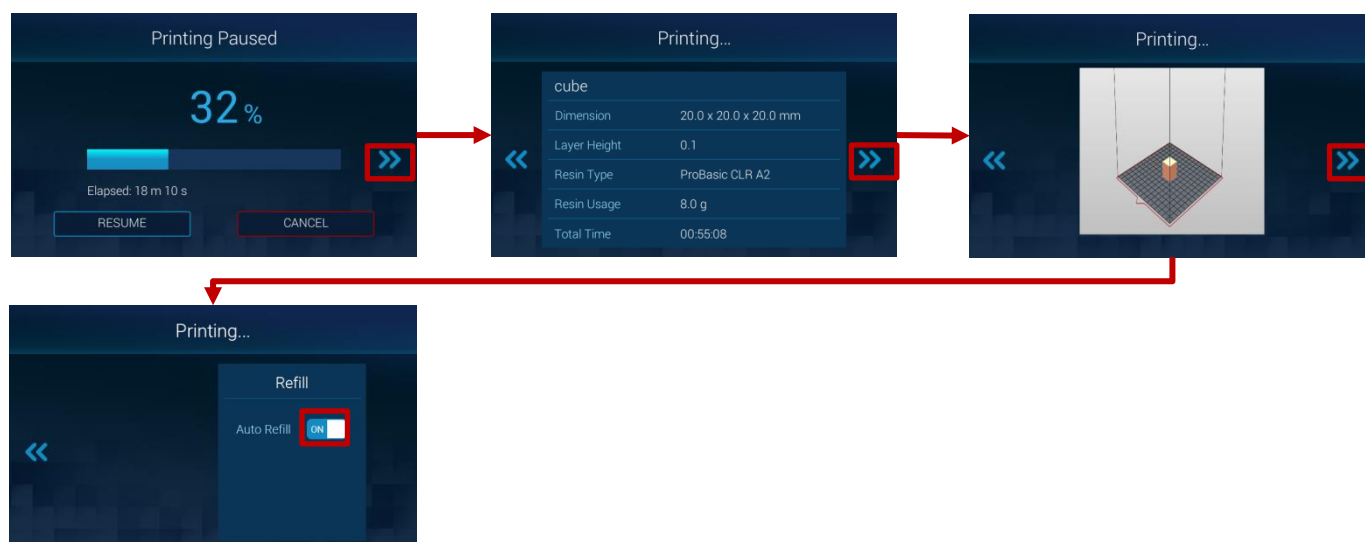
4. Tap [CONFIRM] again when the system has finished the process.
5. Clean up the model on the platform and tap [CONFIRM] to close the message.



Switching off auto-refilling

The setting of auto-refilling can be changed during printing.

To adjust the setting, tap >> 3 times to go to the 4th page, and tap the ON/OFF button.





Display language

The following languages are available on the software interface: German, English, Spanish, French, Italian, Korean, Japanese, Simplified Chinese, and Traditional Chinese.

To change the display language, select the preferred language from the drop-down list in the [General] tab.

Display unit

The software can display the models in millimeters or inch.

To change the display unit, select the preferred display unit from the drop-down list in the [Editor] tab.

Auto positioning

When importing models to the workspace, the software can adjust the position of the models automatically to prevent overlaps. The function is enabled by default every time when the software is launched. You may disable auto-position if preferred.

To disable auto-position, uncheck [Import object(s) with auto position.] in the [Editor] tab.

 This setting can only be changed when the workspace is empty.

Printer type

The software is compatible with several printer types. When working with different printer model, you will need to select the correct printer type manually before manipulate and export the models to printing.

To prepare files for this printer, select [PartPro150 xP] from the drop-down list in the [Printer] tab.

 Models on the workspace will be removed after the printer type is changed.

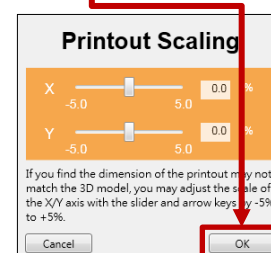
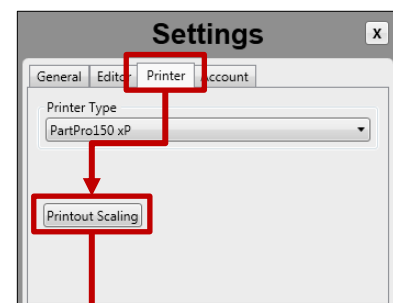
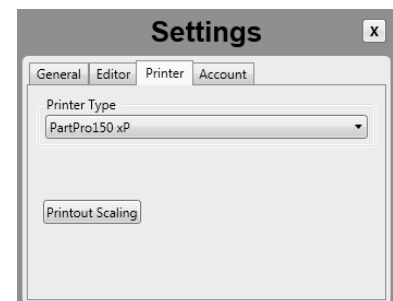
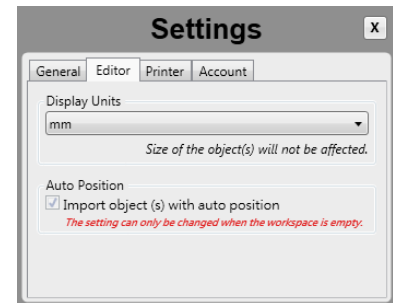
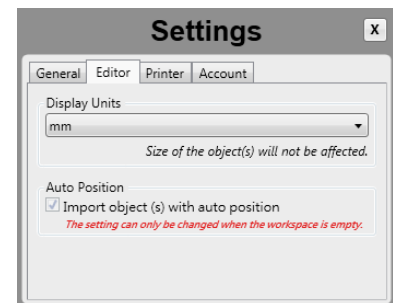
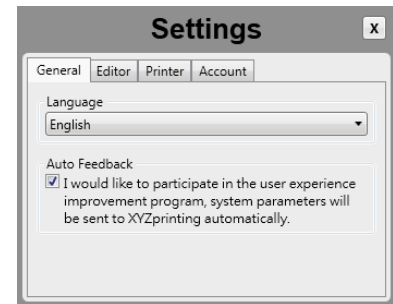
Dimension fine-tuning

Printing accuracy at X/Y axis can be improved if you find the printout dimension is different from the original design.

To fine-tune the dimension:

1. Measure the dimensions of the printout, and compare it with the design.
2. Go to the [Printer] tab and click [Printout Scaling] button.
3. Adjust the scaling rate at X and Y-axis ($\pm 5\%$) and click [OK] to apply the setting.

 The setting will be stored in the software and applied to every print job sent afterwards. If you are operating multiple printers, be sure to change the setting here before exporting the files for a different printer.





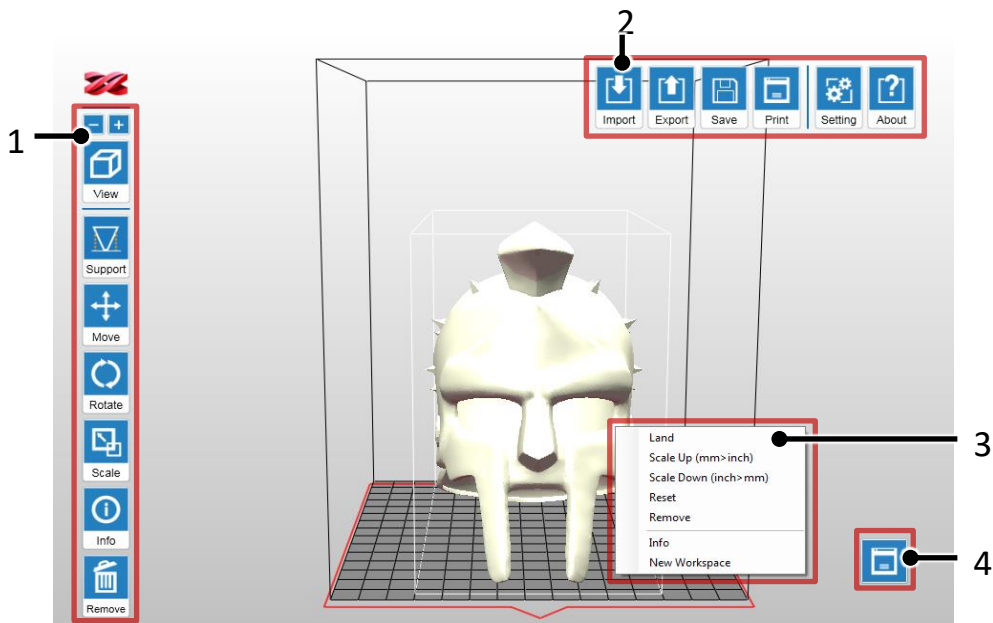
4. OPERATING XYZprint AMUV

Launch XYZprint AM^{UV} by double-clicking on the desktop icon  on the Windows desktop or select XYZprint AM^{UV} from the list of program on your computer.

SOFTWARE INTERFACE

The software illustrates the printing environment on the printer. An empty workspace is presented with grids for showing the display unit in centimeter or inch.

All models loaded to the software will be placed on the workspace. Production is not allowed when any model is out of the boundary of the workspace.



The software is controlled with the following icons shown on the top and the right side of the workspace.

Function	Description	When Enabled
1 Side Bar		
Zoom the view	Zoom in or out the platform to view the details of objects.	A
View	Change the view angle on the workspace.	A
Support	Add support structures under overhangs.	D
Move	Change the location of models on the workspace	C
Rotate	Change the orientation of models on the workspace.	C
Scale	Resize the models on the workspace.	C
Info	Display the information on the model's file name, file format, position on the workspace and size.	C
Remove	Delete the models on the workspace.	D



Function	Description	When Enabled
2 Top Bar		
Import	Import models in .stl/.3ws/.3wn format to the workspace.	A
Export	Slice the models on the workspace and export to .3wn format.	B
Save	Save the models on the workspace as .stl or .3ws file.	B
Print	Setup printing preference and send the objects for printing	B
Setting	Set up interface language, display unit, printer model, fine-tuning printout dimensions, and enable/disable auto-position.	A
About	Display the version number of the software and the machine, and the information of the resin bottle installed on the printer. The function is also used for software and firmware update.	A
3 Right-click Menu		
Land	Land the model on the workspace.	C
Scale up (mm>inch)	Change the display unit of the selected model from millimeter to inch.	C
Scale down (inch>mm)	Change the display unit of the selected model from inch to millimeter.	C
Reset	Reset the edit of positioning, rotation and scaling and delete the supports.	C
Remove	Delete the model on the workspace.	C
Info	Display the information on the model's file name, file format, position on the workspace and size.	C
New Workspace	Delete all models on the workspace.	A
4 Printer Monitor	Set up printer connection and monitor the status of the printer.	A

Refer to the following chart for the code of "When Enabled".

A	When the software is launched
B	One or more objects are added to the workspace.
C	An object is selected.
D	One or more objects are selected.
E	After an undo request.



KEYBOARD SHORTCUTS AND MOUSE CONTROLS

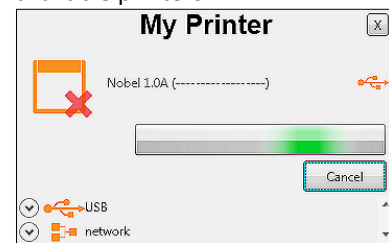
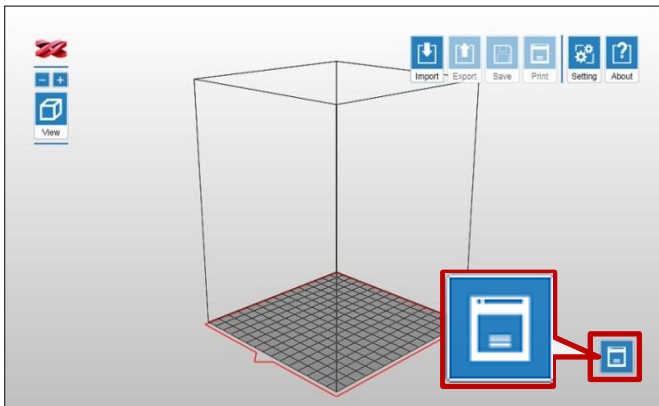
To work more efficiently in the software, you can use the following keyboard shortcuts and mouse controls:

- **Ctrl + A:** Select all objects on the workspace
- **Alt + drag the right or left button:** Move the object on X/Y axis
- **Delete:** Delete the selected objects from the platform.
- **Ctrl + left click:** Multiple selection
- **Drag the mouse wheel:** Pan the workspace
- **Drag the right or left button:** Change the view

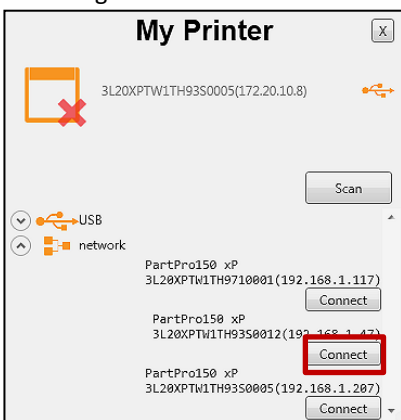
CONNECTING TO THE PRINTER

After plugging in the USB cable between the printer and the computer or completing the configuration of wireless or Ethernet network on the printer, initial the connection with the following procedures:

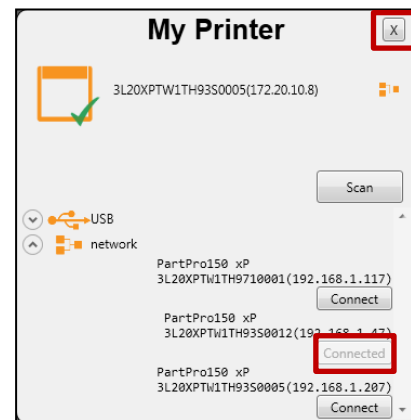
1. Click the printer monitor on the lower right corner.
2. Wait while the software is scanning for the available printers.



3. All available printers will be listed at the bottom of [My Printer]. Cable connected printers will be listed under [USB] while other machines connected through wireless or Ethernet network under [Network]. Find the targeted printer with its serial number or IP address, and click [Connect] to initial the connection. If the target device does not appear here, click [Scan] button to retry searching for the device.



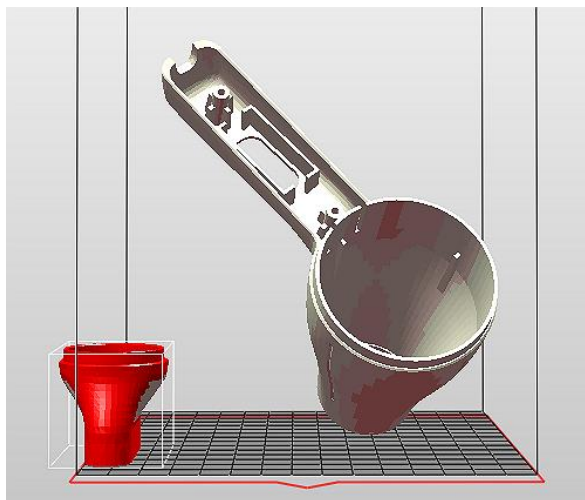
4. When the connection is set, [Connect] button will change to [Connected]. You can click [X] to close the window and begin other operation.





COLOR DISPLAY OF OBJECTS

The color of the printed parts is depending on the material installed, and is not related to the display color in the software.

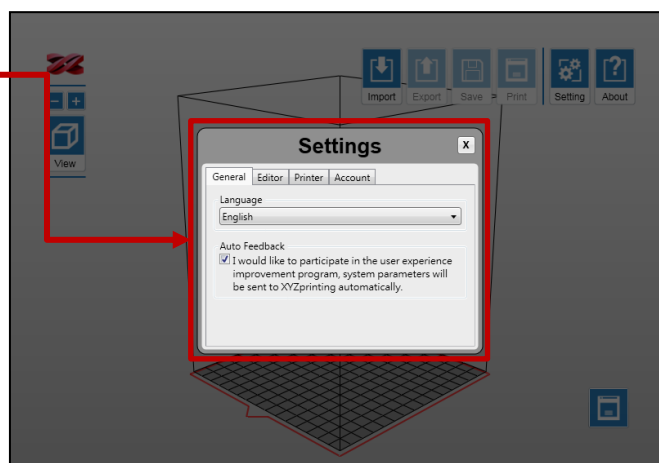
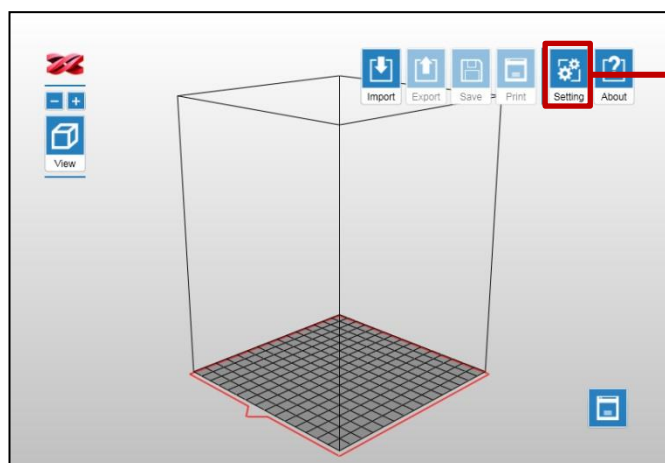


The color displayed in the software allows for easy distinguish of the status of objects on the workspace. The indication of different colors is explained as following:

Color	Description
White	The models within the printing area.
Shaded pink	Overhang area on the models.
Red	The models are out of the production area. If there is any model shown in red, the [Export] and [Print] functions will be disabled. Please adjust the placement of the models.

PREFERENCE SETTINGS

You can adjust the following items based on your preference. Firstly, click [Setting] icon on the main screen. The preference can be changed any time in the [Settings] tab.

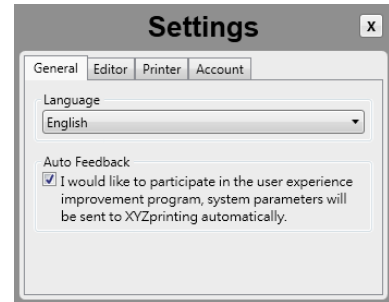




Display language

The following languages are available on the software interface: German, English, Spanish, French, Italian, Korean, Japanese, Simplified Chinese, and Traditional Chinese.

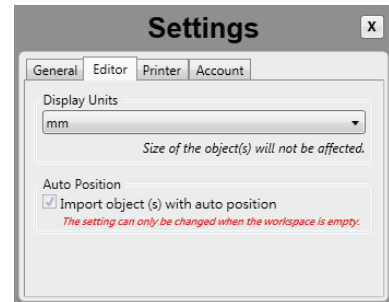
To change the display language, select the preferred language from the drop-down list in the [General] tab.



Display unit

The software can display the models in millimeters or inch.

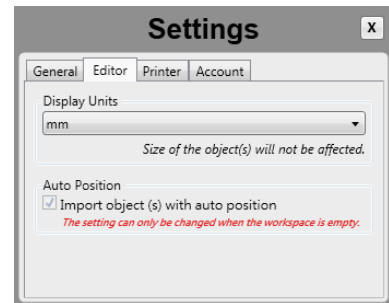
To change the display unit, select the preferred display unit from the drop-down list in the [Editor] tab.



Auto positioning

When importing models to the workspace, the software can adjust the position of the models automatically to prevent overlaps. The function is enabled by default every time when the software is launched. You may disable auto-position is preferred.

To disable auto-position, uncheck [Import object(s) with auto position.] in the [Editor] tab.

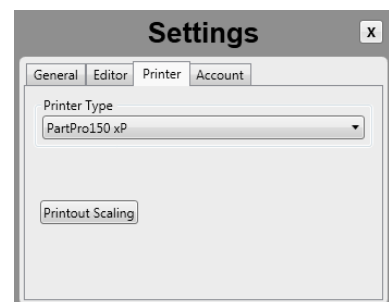


 This setting can only be changed when the workspace is empty.

Printer type

The software is compatible with several printer types. When working with different printer model, you will need to select the correct printer type manually before manipulate and export the models to printing.

To prepare files for this printer, select [PartPro150 xP] from the drop-down list in the [Printer] tab.



 Models on the workspace will be removed after the printer type is changed.

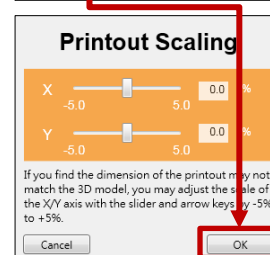
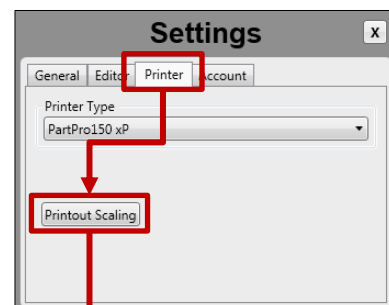
Dimension fine-tuning

Printing accuracy at X/Y axis can be improved if you find the printout dimension is different from the original design.

To fine-tune the dimension:

1. Measure the dimensions of the printout, and compare it with the design.
2. Go to the [Printer] tab and click [Printout Scaling] button.
3. Adjust the scaling rate at X and Y-axis ($\pm 5\%$) and click [OK] to apply the setting.

 The setting will be stored in the software and applied to every print job sent afterwards. If you are operating multiple printers, be sure to change the setting here before exporting the files for a different printer





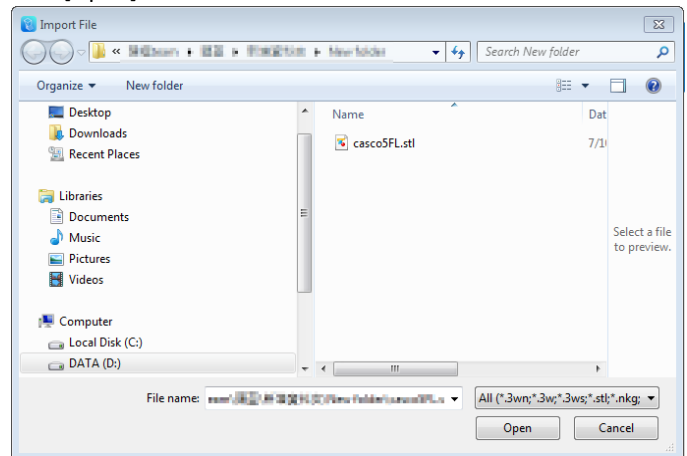
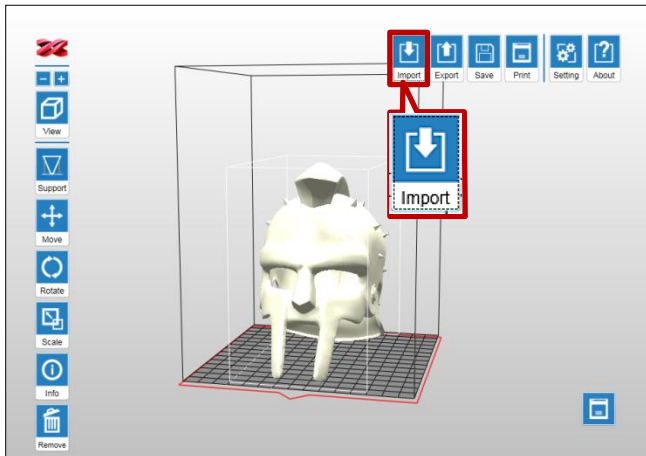
PREPARING THE FILES

Importing Models to the Workspace

Models to be printed should be loaded on the workspace for preparation.

To load .stl, .3ws, or .3wn file to the workspace for printing:

1. Click [Import] icon.
2. Browse to the target folder, select the file type to be imported from the file-format drop-down list in the [Import File] window. Navigate to your file and click [Open].



- You can import only one file at a time. To import more files, repeat the operation or drag the files to the workspace directly.
- Files in different format are not allowed on the workspace.
- Only one 3ws or 3wn file is allowed on the workspace.

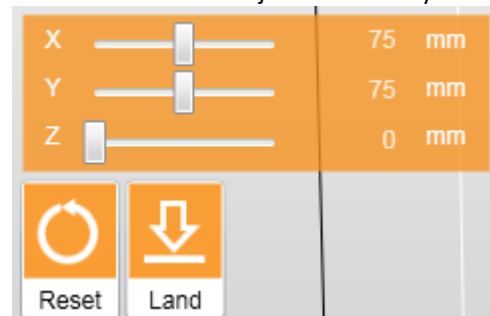
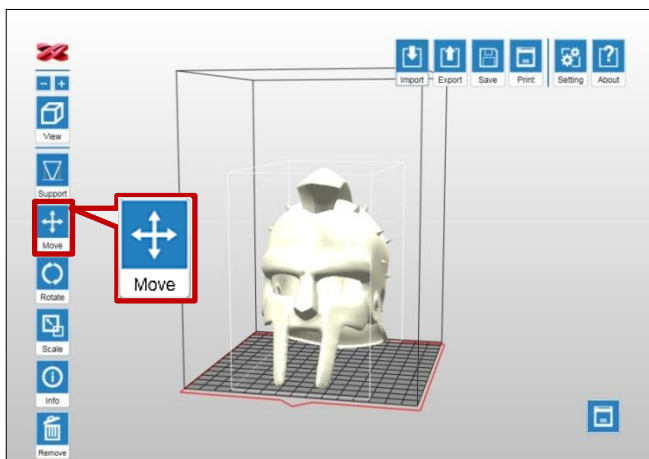
MANIPULATING MODELS ON THE WORKSPACE

Repositioning models

The position of models has direct impact to the printing time. Especially when multiple models are imported to the workspace, you may want to adjust their positioning manually.

To adjust the position of the models:

1. Select an object on the workspace and click [Move] icon.
2. Move the object along the x, y, or z axis with the slider bar. You may also press and hold ALT key and drag the mouse to move the object horizontally.





Rotating the models

The orientation of models may impact the printing quality, successful rate and printing time. To ensure a successful print, you may need to rotate the models and add supports to overhangs based on the features of each model.

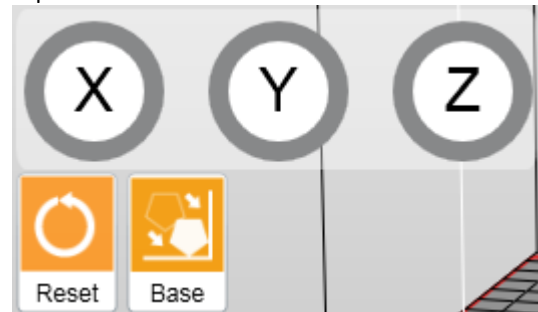
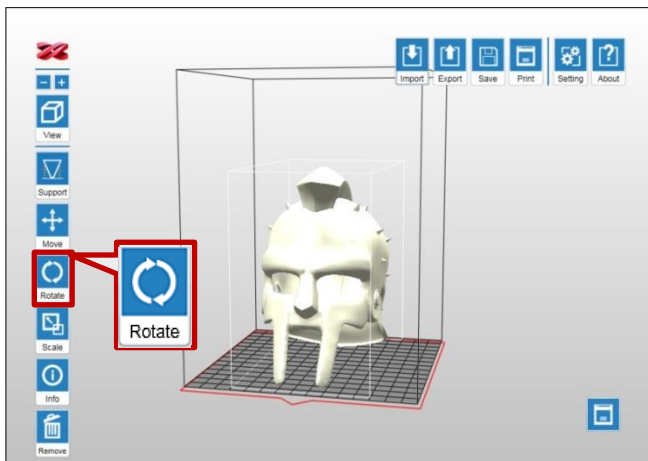
Key consideration for orientation:

- Top-heavy structure may fall off the platform, and may require more supports to hold it on the platform. The best practice is to rotate your object to move the heaviest part of it to the bottom.
- Objects with large cross-section area may also fall off the platform.
- Horizontal plane may droop due to the nature of the liquid material.

Support will be removed when rotating the models with support settings. Therefore, decide the best orientation of the parts before setting up supports.

1. Select an object on the workspace and click [Rotate] icon.
2. Adjust the angle of the object around the x, y, or z axis by dragging or clicking the X/Y/Z knobs respectively.

Or to turn a specific facet to the workspace, click [Base] and click on your target facet, the model will be rotated as specified.



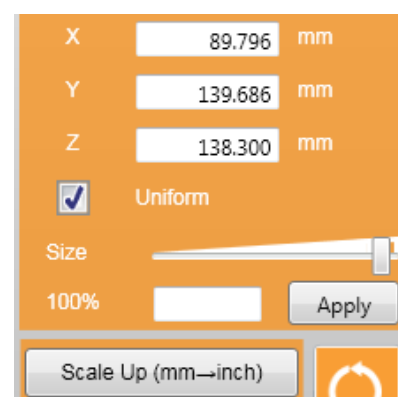
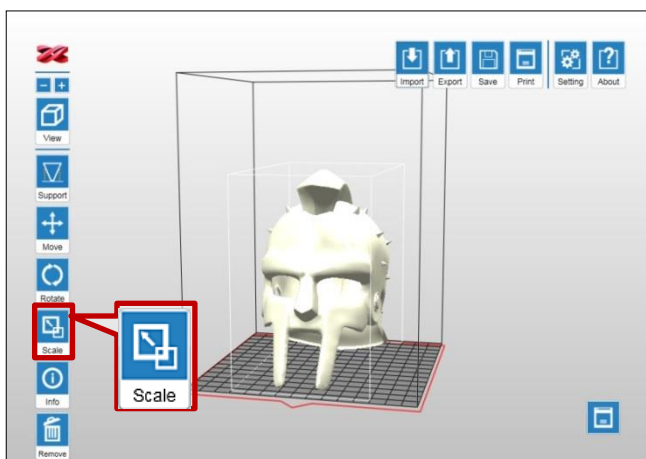
Resizing the models

When you want to print the model in the size different from the original design, you can scale of object in the software directly.

To adjust the size of the models:

1. Select an object on the workspace and click [Scale] icon.
2. Scale the object as you desire. To resize the models in the same ratio, select [Uniform] checkbox.

The size slider and scaling ratio are only effective when [Uniform] is selected.





Adding supports automatically

Support structure is required under overhangs. It prevents the falling for gravity and the deforming due to the peeling force during printing, and increases adhesion of the model to the platform.



The software is able to analyze the features of the model and add support structure to where necessary.



You may add or delete support structure based on the features of the print manually.



A manual editing mode to generate supports thicker than the original supports.



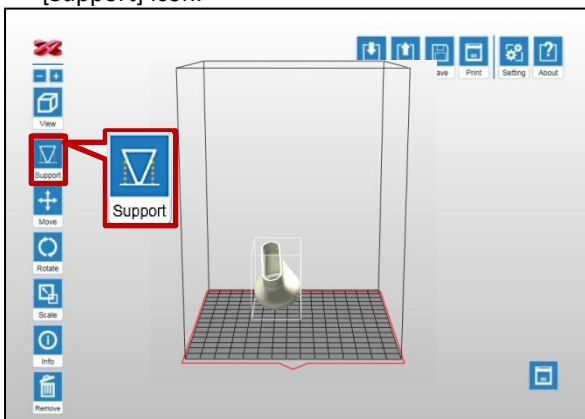
Tree supports connect to your 3D objects with very small contact.



If the object is resized, rotated, or moved vertically, the support structure will be reset. Please set up the supports again.

To add supports automatically:

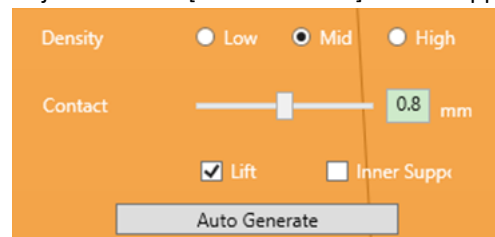
1. Select one or more object on the workspace and click [Support] icon.



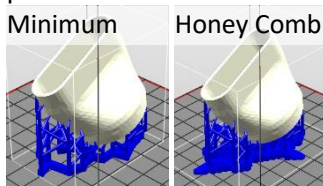
2. Select [Auto].



3. Setup below settings based on the features of your object and click [Auto Generate] to add supports.



- **Density:** Large overhangs will require more support structure. However, more support structure will take longer for printing.
- **Contact:** Thicker contact point will lead to higher strength but it may require more efforts to remove them in the post-processing steps.
- **Raft Type:** a raft is an extra base at the bottom of the supports. It helps increase the adhesion to the platform.



- **Lift:** Lift the objects over the print platform is necessary for those without any flat surface or not suitable for laying on the platform. Be sure to check if the supports are enough to hold the objects on the platform before printing.

- **Inner Support:** For objects with inner overhanging structure, supports will be added when “Inner Support” is selected. However the support at inside may not be removed easily for some structures with small openings, you may consider printing without inner support.



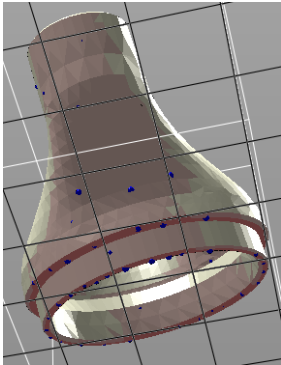
- Raft is not available for the part too close to the platform (z-gap <6mm). In such setting the supports will be built on the platform directly. The supports may come off the platform during printing. To print with a raft, be sure to select [Lift].
- Honey-comb raft provides the best adhesion. Printed models with such raft are easy to remove from the platform.
- Minimum raft takes less resin to build.
- To change the size or location of individual support structure, please edit it in the Manual Mode.



Editing supports manually

You can build the supports from scratch with the manual mode, or use it to adjust the supports generated in the Auto mode.

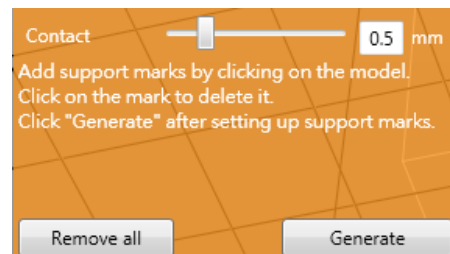
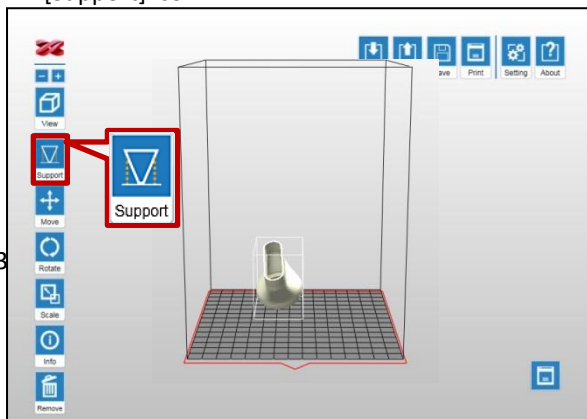
In Auto Mode, all supports are in the same size at the contact points. However, the size of the contact can be set to different based on the features of the object.



Larger contact may be required for heavy part. Smaller contact is good enough for holding lighter structure. Also it is easier for post-processing.

To edit the supports:

1. Select one or more object on the workspace and click [Support] icon.
2. Select [Manual].



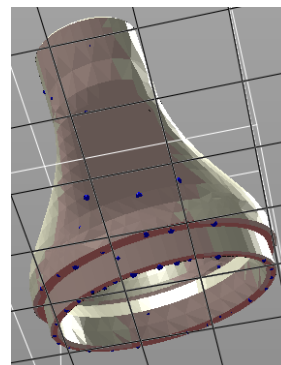
Overhangs.

To delete support, just click on the support mark (the blue dot).

When finished editing the supports, click [Generate] to add supports.



Raft type in the manual mode is based on the selection under Auto mode. To change the raft style, adjust the raft style in Auto mode and go back to manual mode to complete the setting.



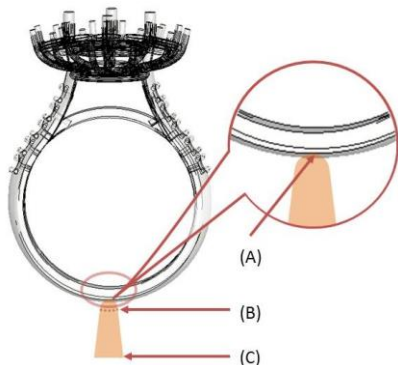
Cone supports

Cone support is thicker than the original support. It is ideal for adding sprues at the base of castable prints. When using cone support as the sprues, simply leave them on the prints for casting.



Cone support also provides better adhesion to the platform, making it helpful for holding the base of heavy objects on the platform. When the cone support is added to the object, it's recommended to sand it away for better surface finish.

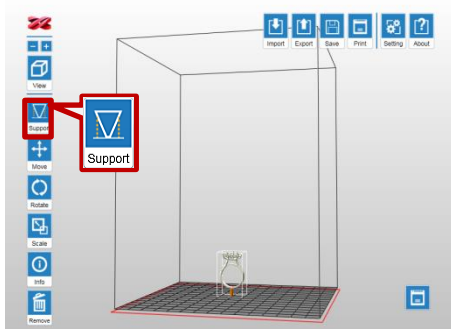
Structure of Cone Supports



Item		Description
A	Contact Area	A larger contact area may be required for heavy objects.
B	Top Diameter	Minimum diameter: 2mm.
C	Base Diameter	Minimum diameter: 3mm. The base diameter of the support should be at least 1mm larger than the top diameter.

To add cone supports

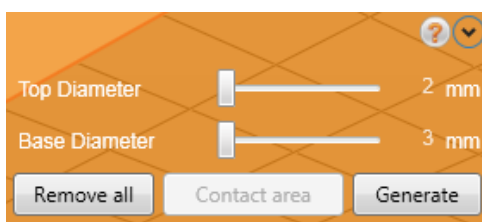
1. Select one or more object on the workspace and click [Support] icon.
2. Select [Cone].



3. Adjust the diameter of the cone and click on the overhangs on the model to add cone marks.

To delete a cone mark, click on the orange dot to remove it.

When finished editing the supports, click [Generate] to add supports.



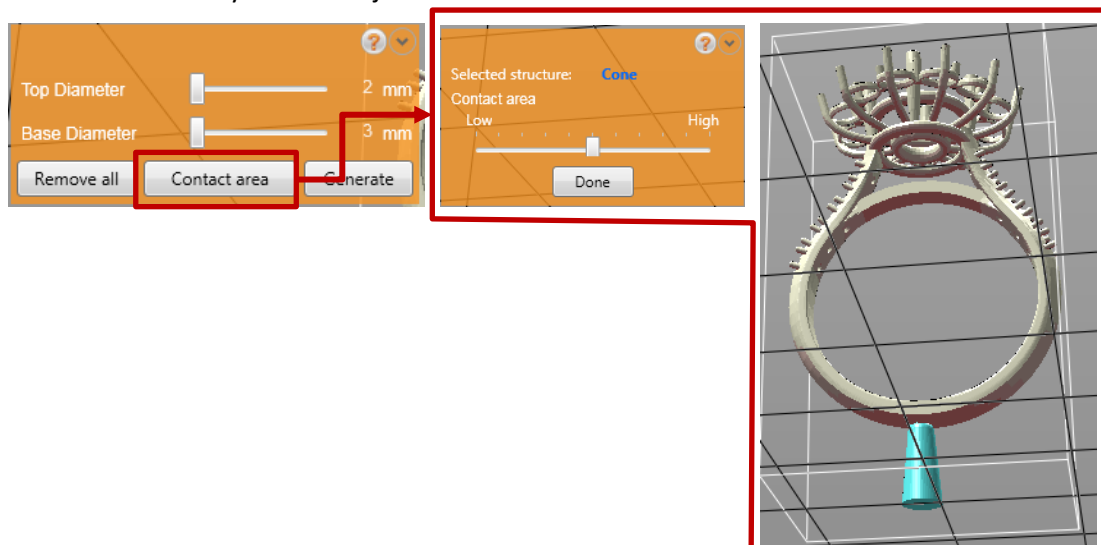


4. Adjust the contact area of the cone support if necessary.

To adjust the contact area of the cone support, go back to the function menu “Support” > “Cone”, and select the button “Contact Area”.

Click on the targeted cone (selected cone will change to blue) and drag the slider to adjust the contact area.

Click “Done” once you have adjusted the contact area of all cones.



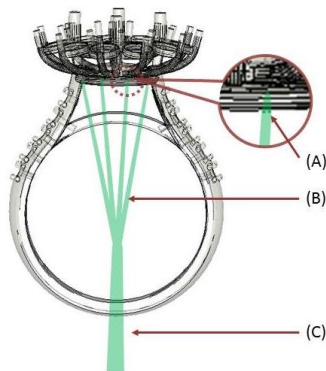
- Cone support is only available when the overhang is at least 6mm above the platform. The software will lift the object when necessary.
- The diameter of the support is fixed once added. To adjust the support, please delete the mark, change the diameters and add the cone mark again.



Tree Supports

Tree supports connect to your 3D objects with very small contact. It is suitable for holding the details on jewelry designs.

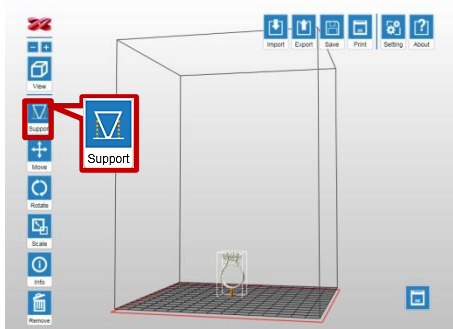
Structure of Tree Supports



Item		Description
A	Contact Area	The area where the tree support connect to the objects. A larger contact area may be required for heavy objects.
B	Branch	The thin support which contacts the objects directly.
C	Trunk	The base of the tree support.

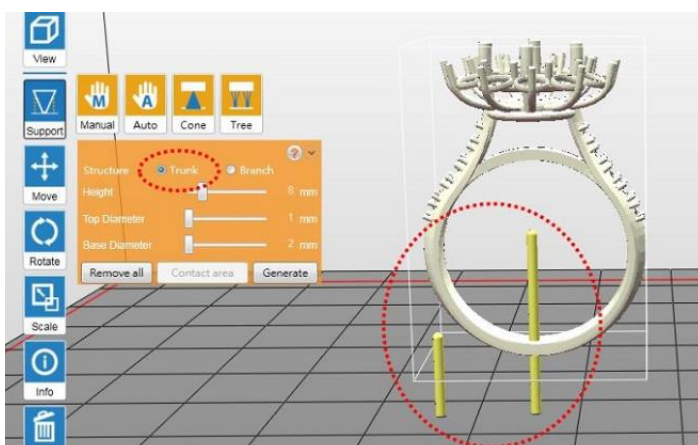
To add tree supports

1. Select one or more object on the workspace and click [Support] icon.
2. Select [Cone].



3. Set up the trunk.

Click on the desired location on the platform to add a trunk. To move a trunk, click and drag on the trunk. To delete a trunk, click on it directly.

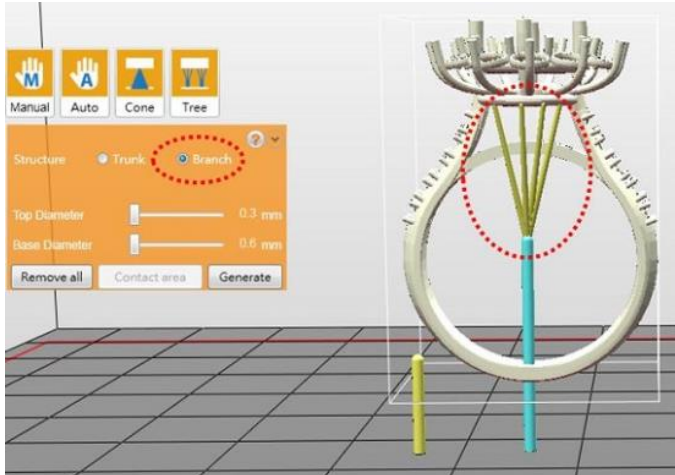




4. Set up the branches.

Switch to “Branch” setup. Click on the targeted trunk with a click on it. Click on the overhangs on the model to add branches to the selected trunk.

To delete a branch, click on the thin stick to delete it.

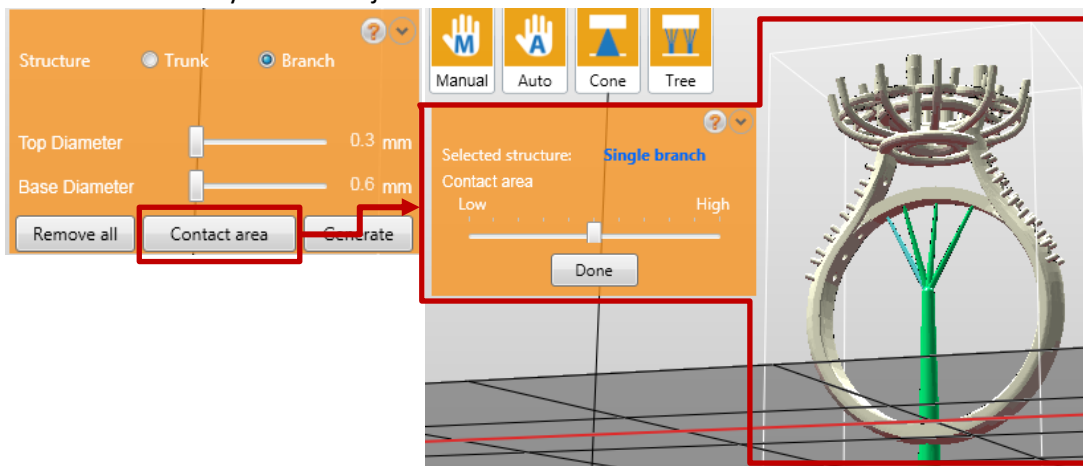


5. Click “Generate” after setting up all marks
6. Adjust the contact area of the branches if necessary.

To adjust the contact area of the branches, go back to the function menu “Support” > “Tree”, and select the button “Contact Area”.

Click on the targeted branch (selected branch will change to blue) and drag the slider to adjust the contact area.

Click “Done” once you have adjusted the contact area of all cones.



- When no trunk is selected, the branches will be shown as yellow marks. Simply click on a trunk, the branch marks will be connected to the selected trunk.
- Branch mark should be higher than the top of the selected trunk.
- Branch setting is disabled when no trunk is added. Please set up trunks before adding branches.
- Branches over 45 degree slope will be shown in red, as they may be displaced in the printing process.



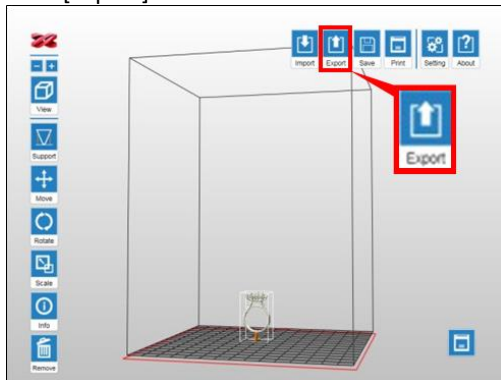
CONVERTING TO THE PRODUCTION FILES

Exporting the files

When finishing editing the files and the supports, click on [Export] to save the model to a sliced .3wn file. Once the file is sliced, you may skip repeating settings in the future.

To export the file:

1. Click [Export] icon.



2. Setup below settings based on the printing quality required and the resin material will be used, and click [Export] to slice the file.



- **Material:** Printing setup varies based on the color and material of the resin. Please set the option based on the resin bottle to be used.

It is advised to include color setting in filename for instant distinction in the future.

Please note that printing will be stopped if the selected resin type doesn't match the resin installed.

- **Resin Model:** [Resin Model] can be found under [RESIN] on the printer screen and on the serial number label on the resin bottle.
- **Layer Height:** Layer Height indicates the resolution of a print at Z axis.

- **Quality:** The setting of Quality has impact on the smoothness of the surface of the printout. Printing with Good quality will take slightly longer than normal printing.
- **To Printer:** Printing parameters vary from printer models. Select [PartPro150 xP] for using this printer.
- **Reduce Facets:** Complex 3D models are composed of a large amount of meshes. Enable this function for slicing such models may save the render time as it will reduce the facets to 200 thousand elements. This function can also repair the 3D model when necessary.

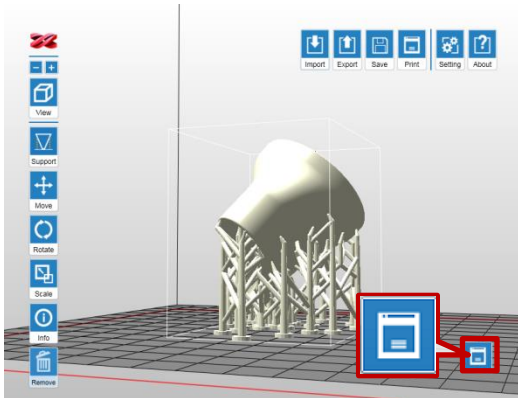


Starting a printing task

New files can be sent to the printer via USB connection, wireless connection or Ethernet connection.

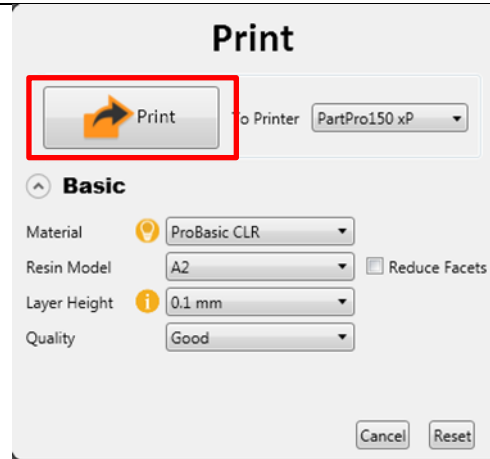
To start a new printing task:

1. Initial the connection through [Printer Monitor]. Refer to P.35.



3. Printout setting window (options are the same as the [Export] function) will pop up. Set your printing preference based on the features of the objects and hit [Print] to proceed.

2. Press [Print] icon on the top bar.



SAVING MODELS ON THE WORKSPACE

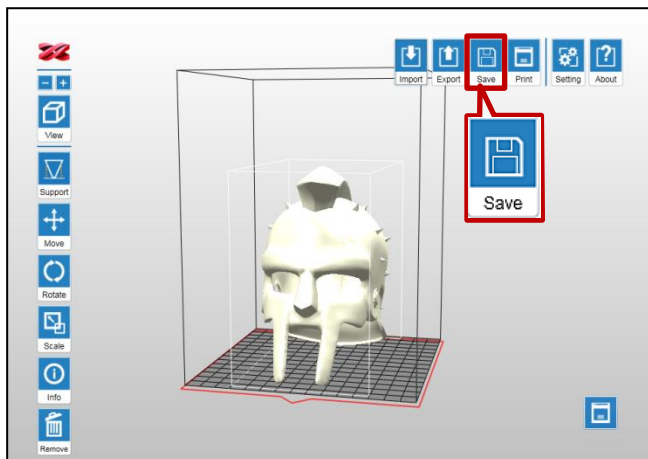
Models on the workspace can be saved in .stl or .3ws format for future used.

After saving the workspace in .stl format, further adjustment to a single object is prohibited as all models are combined as a single file.

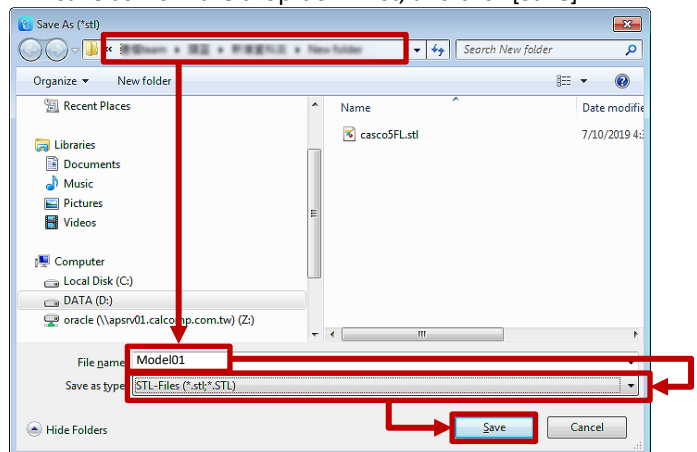
Unlike .3ws project file, XYZprint AM^{UV} memorizes the geometry, orientation, placement, dimensions and the support settings of each model. Once importing the .3ws file on to the workspace, you can still edit each object with XYZprint AM^{UV}.

To save models on the workspace:

3. Click [Save] icon.



4. Select your target folder, input a file name in the field for [File name], choose the type of format you want to save as from the drop-down list, and click [Save].



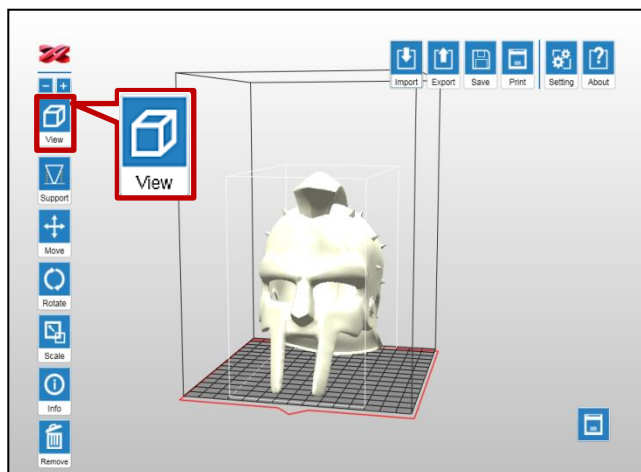


SWITCHING THE VIEW OF THE WORKSPACE

The view angel of the workspace can be changed anytime by dragging the right or left button on the mouse. Or to view the workspace from the standard views, you can use the [View] tool.

To switch between standard view angles:

1. Click [View] icon.



2. Select one of the icons and the software will turn the specified side of the workspace to your front view.



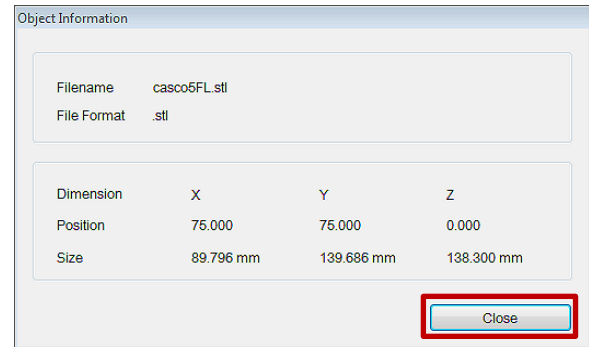
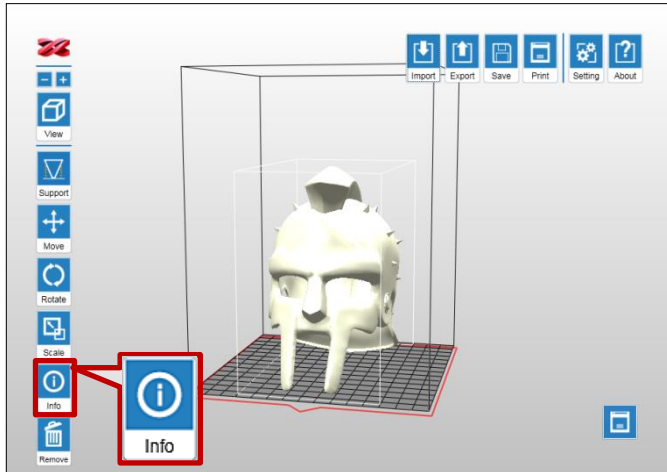


VIEWING THE INFORMATION OF THE MODELS

You may want to check the information of the models imported to the workspace. The software provides the information on file name, file format and the position and dimensions of each selected model.

To view the information on the models:

1. Select an object on the workspace and click [Info] icon.
2. Read the information of the selected object. To close the information window, hit [Close] button.

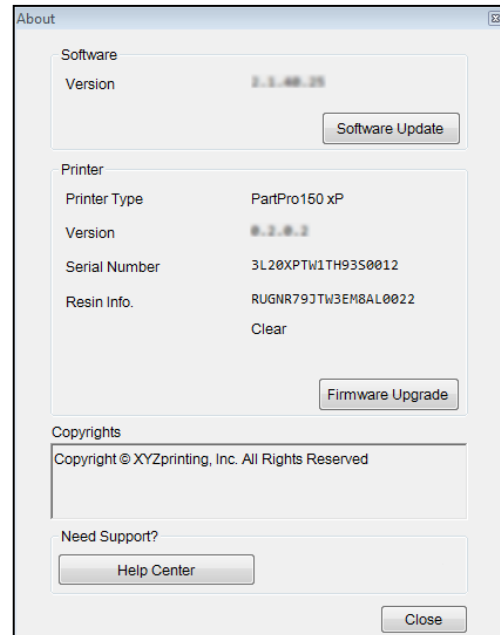
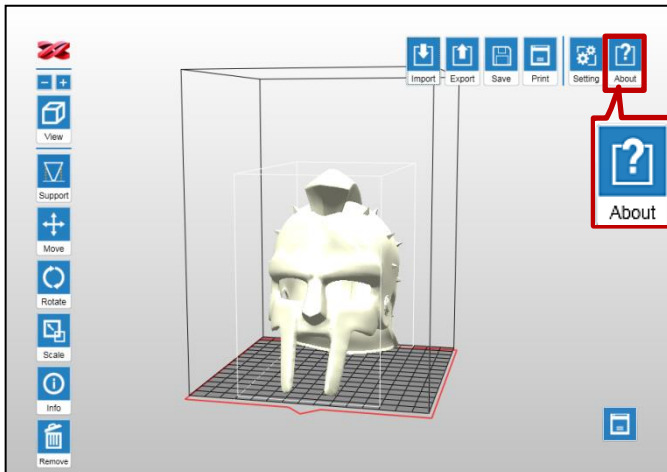


SYSTEM VERSION AND UPDATE

You can check the version number of the software and the printing system and information of the resin bottle installed in XYZprint AM^{UV}. Software and firmware update is also performed using XYZprint AM^{UV}.

To view the information on the version number and the resin cartridge:

1. Select an object on the workspace and click [Info] icon.
2. Read the information of the selected object. To close the information window, hit [Close] button.



To update the software / firmware version:

Click [Software Update] and [Firmware Upgrade] buttons in the [About] window to check for updates.

 Update notice pops-up automatically when a new version is detected online. In general you don't need to check for update manually.

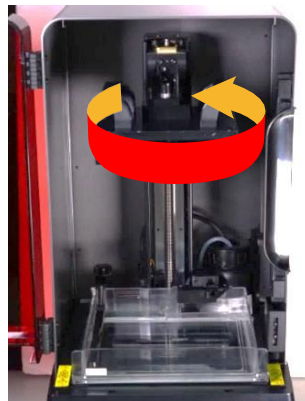


5. POST-PROCESSING

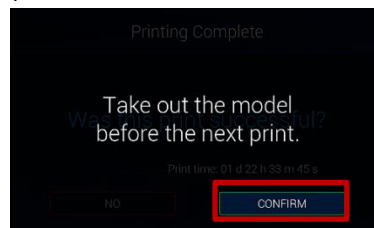
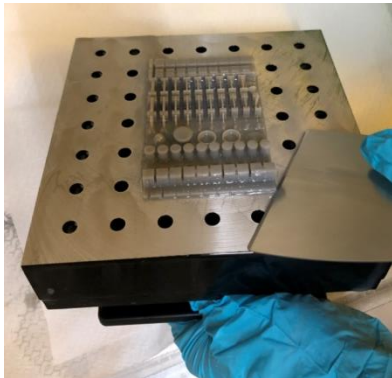
CLEANING UP THE MODELS FROM THE PLATFORM

Wear protective gloves while cleaning up the platform and the printed models.

1. The printer screen displays below message when the printing is completed. Tap [CONFIRM].
2. Release the bolt handle over the platform and pull out the platform. Recess resin may drip from the platform. It is advised to hold a tray or absorbent cloth under the platform while removing it.



3. Scrape off the printed models on the platform.
4. Go back to the printer screen and tap [CONFIRM] to end the procedure.
5. Complete the hardware installation explained on P.6 before the next print.



 Always remove the platform before removing the resin tank to avoid dripping leftover material on printer surface.



POST-PROCESSING

Resin printed models should go through the following post-processing steps to ensure it is ready for final application:



 Protective gloves should be worn before handling printed models.

Alcohol bath

Rinse part in Alcohol ($\geq 95\%$ Alcohol). Pour alcohol into the rinse bucket, shake the print for a few minutes, and then rub it with your fingers thoroughly.



Support removal

Use pliers or other tools to remove the support structure from the cleaned prints. Avoid pulling out the supports directly, or the surface of the models may be damaged.



Sanding

If the support touch-points are visible, sand the surface with sand paper.

Post-curing

The printed object produced with the resin must be post cured using UV light to ensure the material is completely polymerized to achieve the best material properties. The suggested curing time of each material is provided in the instructions for the beta test.

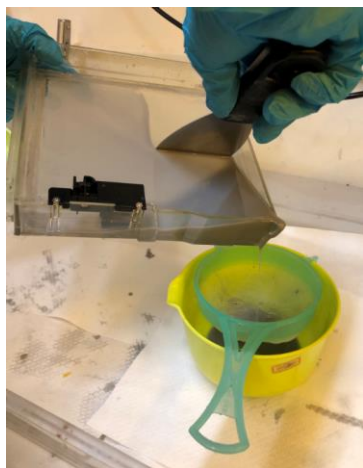




MAINTENANCE

Filtering resin in the tank

Uncured resin in the tank can be left for the next print if you are not change to other material. However, cured debris may be left in the resin. To ensure the printing quality, be sure to filter the resin and pour it back to the tank before the next print.



Preservation of the Uncured Resin

Avoid exposing uncured resin to the air for long periods of time. The uncured resin can be stored in an opaque container after it is filtered. Pour the resin back into the resin tank prior to the next printing.



***If you need to change to other materials for printing, it is recommended to replace with a new resin tank.**



APPENDIX

APPENDIX 1 TROUBLE SHOOTING

The printer and the software alert any abnormal status with an error code and relevant error message. Check the following charts for the standard procedures for troubleshooting.

If any issue persists, please contact your service representative.

Error code on the printer

Error Code	Cause	Troubleshooting
1001	Z axis motor upward movement abnormalities or Z axis top sensor malfunctioned	Reboot the printer and try to move the platform again by selecting [SETTINGS] > [Platform] > [Go Top] on the main menu.
1002	Z axis motor downward movement abnormalities or Z axis bottom sensor malfunctioned	Reboot the printer and try to move the platform again by selecting [SETTINGS] > [Platform] > [Go Bottom] on the main menu.
1003	Tag reader malfunctioned	Remove the tank, and check the status of ID tag reader through the mirror under the tank slot. Please check if the ID tag reader is in place, the LED indicator illuminates, and the connector is securely attached. Contact the service center after you have checked the status of the printer.
1004	Engine board error	Contact the service center for help.
1005	Y-sensor or Y-motor malfunctioned	Check if the printing module lock at the bottom of the printer has been released. 
1006	PD sensor error	Contact the service center for help.
1007	Engine issue detected	
1008	Engine issue detected	
1009	Wi-Fi module malfunctioned.	
100F	LAN connection failure	
1010	Wiper module malfunctioned	
1020	Heater module malfunctioned	
2000	Resin refilling failure	Replace the resin cartridge, and make sure the nozzle cap is securely closed.
2001	Resin bottle not detected	Insert a XYZprinting resin bottle into the cartridge slot. Also, please check if the ID tag is attached to the bottom



		of the cartridge.  If the ID tag is missing, please contact the service center for help.
2002	Laser module not calibrated	Contact the service center for help.
2003	Resin bottle ID tag voided	The ID tag is void when the resin bottle is empty. Please replace the resin cartridge.
2004	Covers opened	Close the covers securely.
2005	Invalid resin tag detected	Install XYZprinting resin bottle and try again.
2006	File parsing failed	Parsing failure is caused by slicing issue or incompatible firmware version. Re-slice the file with the slicing software. Make sure to specify the corresponding printer model while exporting the file. In some case you may need to re-slice the files after updating the software and the firmware.
2007	File size over the limit (200MB)	Select another file that is smaller than 200MB.
2008	Non-manifold issue found on the model	Repair the file with 3D model repairing software (such as net fabb or Make Printable) and slice the model again.

Error code in the software

Error Code	Cause	Troubleshooting
1021	Slicer not found	Reinstall the software and try again.
1022	Transmission failure due to connection issue	Check the USB cable connection between the printer and the computer and try again. Do not unplug the USB cable from either side before the transmission is completed.
1023	Insufficient RAM for loading more files	Try either method below: • Reduce the size of the model. • Add more RAM to your system.
1024	System error detected	Restart the software and try again.
1025	Unable to save the file to the selected disk	Check the following items: • Check the connection between the selected disk and your PC. • Check if there is sufficient disk space on the selected disk.
1026	Non-manifold issue found in the file	Repair the file with 3D model repairing software (such as net fabb or Make Printable) and slice the model with the software again.



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.