da Vinci Super

Quick Guide

ENG

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▶ Print

▶ Supporting information

The manual is mainly intended for users to understand how to use the da Vinci Super 3D printer ("da Vinci Super") correctly. In this manual, users can learn more about the operating tips, application skills and maintenance of the da Vinci 3D printer.

For more information on the da Vinci Super 3D printer and the complete XYZprinting product line, please contact your local dealer or visit the official website of XYZprinting: http://www.xyzprinting.com.

Safety Precautions

● Safety and Compliance

Please read through this manual and all safety precautions carefully before using, operating, unpacking, replacing, removing any part or maintaining this product. Please also comply with the instructions of relevant safety precautions.

● Important Safety Precautions

- Do not move the machine by yourself as it is heavy.
- Do not place the printer on a soft or tilted surface. Otherwise, the machine will fall / flip over and become damaged or cause personal injury.

- Do not place the printer in a dusty, humid or outdoor environment.
- Weak odors may be generated during the printing process. We recommend working in a well-ventilated
- and open area to ensure operational comfort.
- Do not leave the product or power cord to unattended children. Otherwise, personal injury or electric shock might occur.
- Use the provided power cord. Otherwise, incorrect grounding might lead to damage.
- Do not place any liquid container on top of the product. Otherwise, overflow or spill might go into the machine and pose the risks of danger or safety concern.
- Do not wipe the printer with alcohol or flammable chemicals. Otherwise, danger might occur.
- Do not move the machine when it's powered on.

- Do not reach into the machine with your hands during operation. Otherwise, risks of impact from moving printing parts or burn from high temperature might occur.
- The machine becomes hot during operation and thus run in high temperature. Do not touch or replace parts when they are not cooled down.
- After startup, the parts in the machine will heat up or move depending on the user's instructions. During product operation, do not touch or block the operation of the parts.
- Defect reparation must be carried out according to the contents of this instruction manual. Where the defect cannot be repaired, please contact your printer dealer or the customer service center.

● Trademarks

All trademarks and registered trademarks are the properties of their respective owners.

Product instructions

① 5" color touch panel
② Rear feeding motor
③ Print bed
④ Filament holder
⑤ Print head
⑥ Power inlet
⑦ USB socket
⑧ Power switch
⑨ USB Port

● Accessory List

● USB drive
(including XYZware Pro installer,
da Vinci SUPER user manual and
XYZware Pro user manual)

● PLA filament

● Power cord

● USB cable

● Filament guide tube

● Front-feeding motor

● Wireless

● Top cover

● Mask tape

Precautions and Instructions of Maintenance Tools

⚠ The following maintenance tool shall only be used with adult guidance or supervision. To prevent accidents, do not allow a child to access maintenance tools without proper training.

Scraper

Print head cleaning wirewire

Feed hole cleaning wire

Wire brush

Gear cleaning brush

• Make sure the maintenance work of the printer is carried out when the printing bed is cooled down.
• When printing is completed and the printing bed is cooled down to room temperature, the printed object can be removed from the printing bed with the scraper.
• Filament residues generated during the course of printing may be stuck on the print head and gears of the printing module. The printing quality and printer operation as well as the measurement of the printing bed may be affected. When this happens, clean the printing module with the wire brush.

● Maintenance and Service

When the printer needs to be serviced during the term of the warranty, it is recommended that the machine is packed with original packaging materials prior to shipment. For this purpose, the packaging materials are better to be kept. If other packaging materials are used instead, the printer might be damaged during printing. We reserve the right to assess relevant service fees.

Unboxing and Installation

1 Remove the plastic wrap and PP strap.
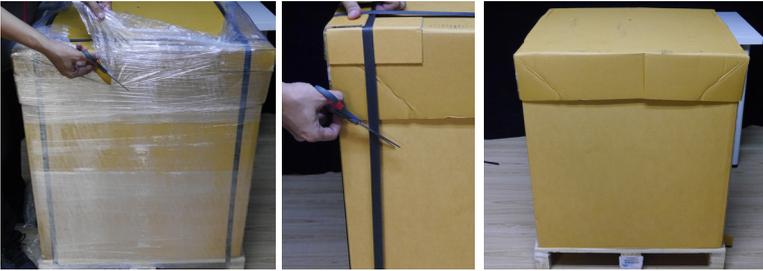
2 Remove the top cover.

3 Remove the top cover box and the packaging materials.

4 Remove the side of the carton .

5 Remove the assessory box.

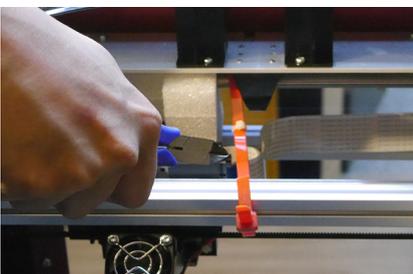**6** Place the printer on a table or platform (please do not move the printer alone).

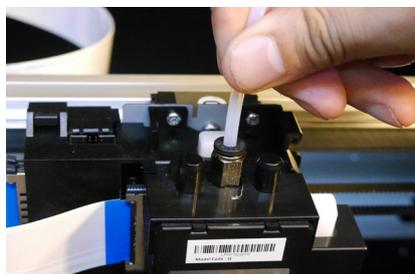**7** Remove all tape from the body (4 pieces in total).

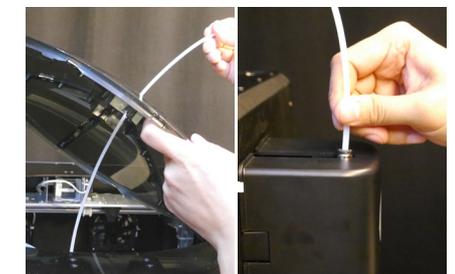**8** Remove the foam next to the guide screws on both sides, and then remove the foam under the print bed. (total 4 pieces)

9 Remove the cable tie and foam situated behind the front door.

10 Insert the guide tube through the top cover, and then insert one end into the extruder module.

11 Insert the other end of the guide tube into the feed module and secure it tightly.

12 Plug-in the power cord

13 power on the printer.
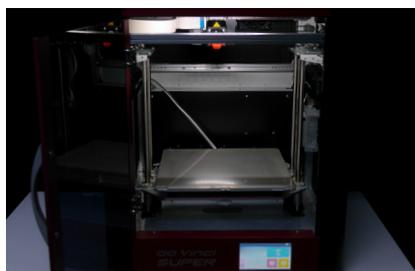
Product specification

Printing technology	FFF (fused filament fabrication)
Dimensions (W*D*H)	511*581*670 mm
Gross weight	35.5kg
Printing dimensions (W*D*H)	Front-feeding motor: 290 x 290 x 300 mm
	Rear-feeding motor: 300 x 300 x 300 mm
Print resolution	0.02 - 0.4 (mm)
Automatic feed system	Yes
Printing bed heating	Yes
Automatic printing bed calibration	Yes
Print head diameter	0.4 (mm)
Print material	ABS / PLA / TPE / Tough PLA / PETG , open-filament
Language	Multi language
Connection method	USB 2.0 / Wi-Fi
Printing software	XYZware Pro
File format	.stl / .3w
Operation System	Windows 7+ / Mac OS X 10.10 to 10.12

Function Operation and Instructions

- **USB printing**

    1. Check if the USB drive is plugged to the machine.
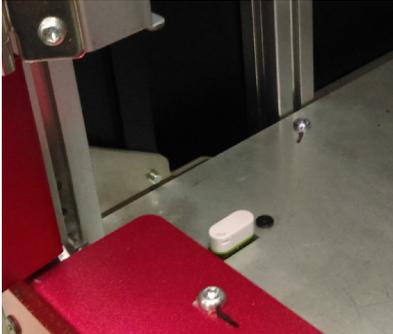
    2. Tap the USB Printing Menu in the main screen.

    3. Select the file (.3w file) to print.
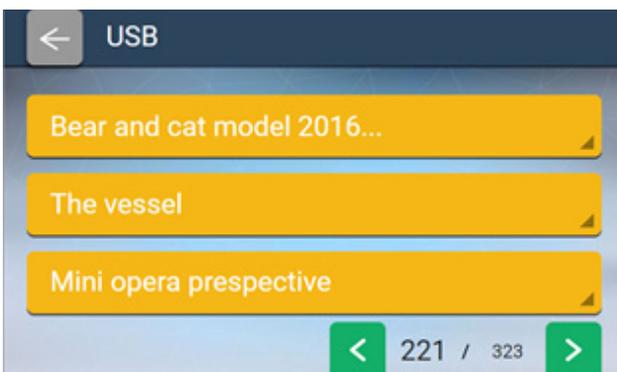
    4. Check file information and tap "PRINT".

● Loading the filament

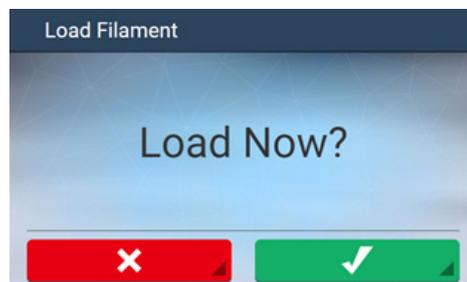1. Remove the side cover and place the filament on the side of the machine.

2. Tap Filament Load and Unload in the main screen.


3. Tap Load.
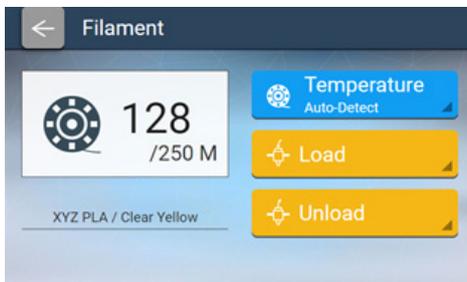
4. Confirm the operation.

5. Insert the filament into the auto-feed module.

6. The print head will pre-heat until it reaches 240°C (XYZprinting PLA).
Once the set temperature is reached, the feeding motor will feed the filament along the guide tube into the print head.

7. Once the print head extrudes filament in a continuous thread, loading is complete. After the filament is loaded, tap to confirm.
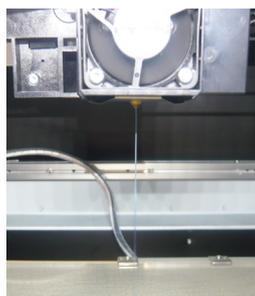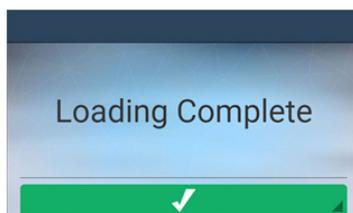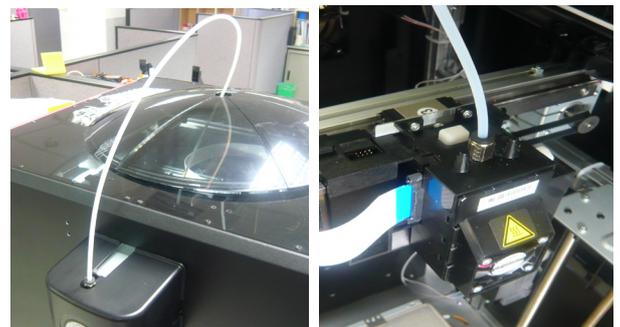
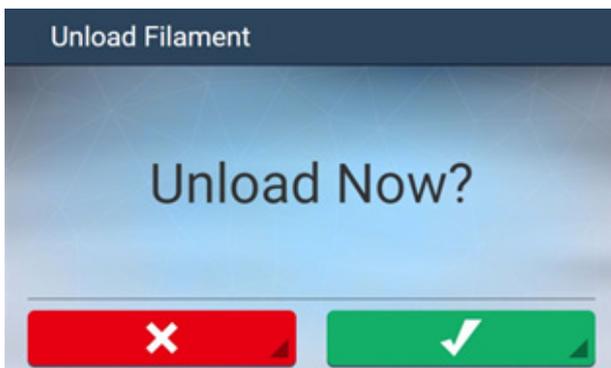## • Unloading the filament

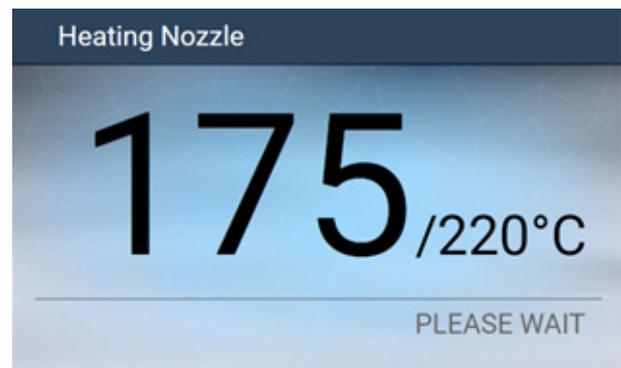1. Tap Filament Load and Unload in the main screen.

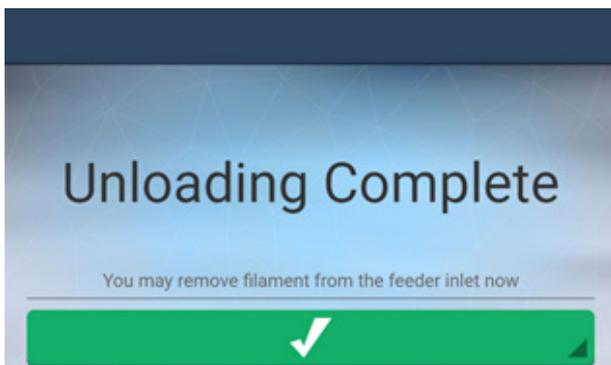2. Tap "Unload" and confirm the operation.
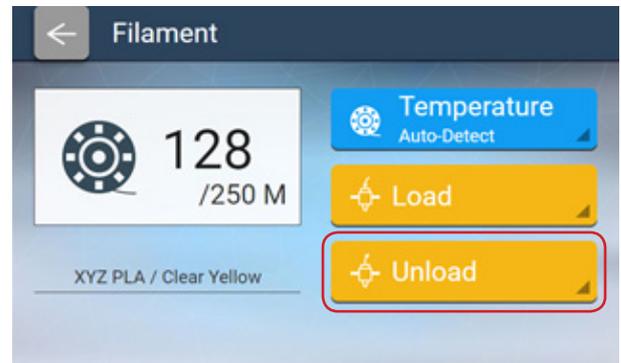
3. Confirm the unloading operation.

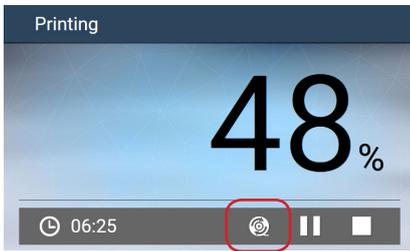4. Once the print head pre-heating reaches 240°C, the feeding motor will unload the filament.

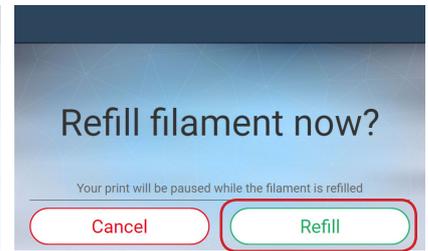5. When the unloading operation is complete, tap to confirm.

- **Filament Installation (Refill)** da Vinci Super will prompt you to refill material.

1. Tap the icon when printing.

2. Tap Refill Filament and then tap Refill.

Printing
48%
🕐 06:25   ⊘ ⏸ ⏹

← Filament
🎛 5 /250 M   ⚙ Refill Filament
XYZ PLA / Clear Yellow

Refill filament now?

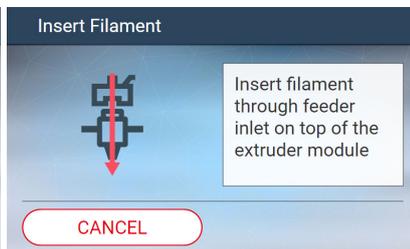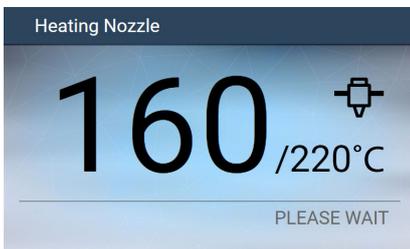Your print will be paused while the filament is refilled

Cancel | Refill

3. The nozzle will be preheated and the filament will be unloaded automatically.

| Unloading |
| --- |
| 🔄🕐 |
| PLEASE WAIT |

Heating Nozzle
160/220°C
PLEASE WAIT
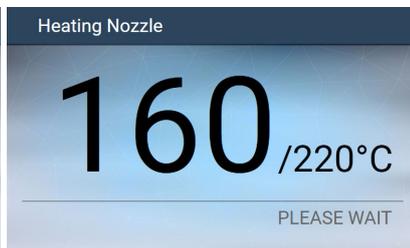
4. Replace the empty spool with a new one. (please refer to the LOADING section in this manual) and then tap "PROCEED".

Swap Current Filament
✋ → ✋
Proceed

5. The nozzle will be preheated and the machine will notify you when to insert filament into the feed module.

Heating Nozzle
160/220°C
PLEASE WAIT

Insert Filament
Insert filament through feeder inlet on top of the extruder module
CANCEL

Reloading
🔄🕐
PLEASE WAIT

6. Check if filament has been extruded from the nozzle, after confirmation, the printer will resume printing.

Verification
Did filament come out of the nozzle?
✖   ✔
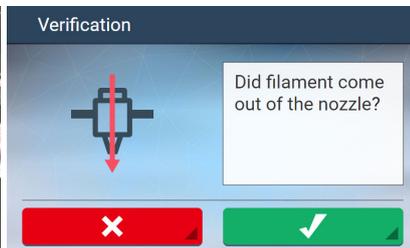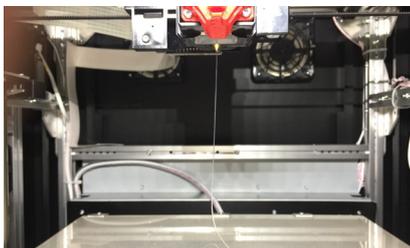
• Temperature settings

da Vinci Super allows the user to use different materials or third party filaments. To satisfy the parameters or characteristics of various filaments, da Vinci Super allows the user to manually adjust extruder temperature, printing bed temperature, and filament unloading temperature.
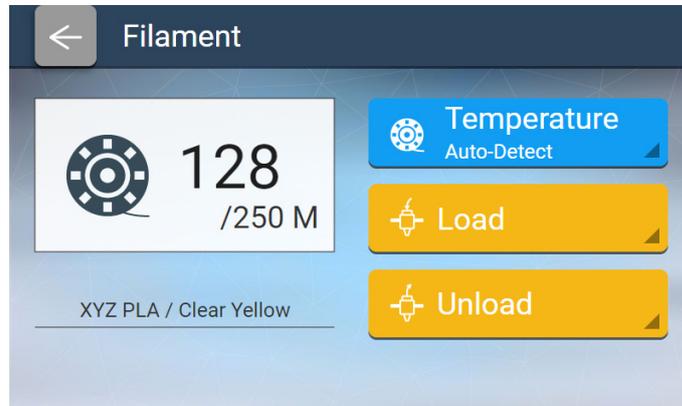

• Auto-detection (Auto)

The printer will automatically read the NFC chip provided on the XYZprinting filament spool to automatically adjust extruder temperature, printing bed temperature, and filament unloading temperature.

• Manual settings (Manual)

You can adjust the nozzle temperature, print bed temperature and nozzle unloading temperature, to suit you filament type.
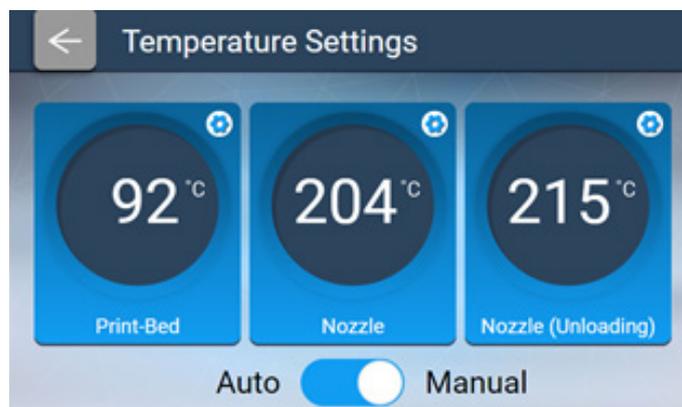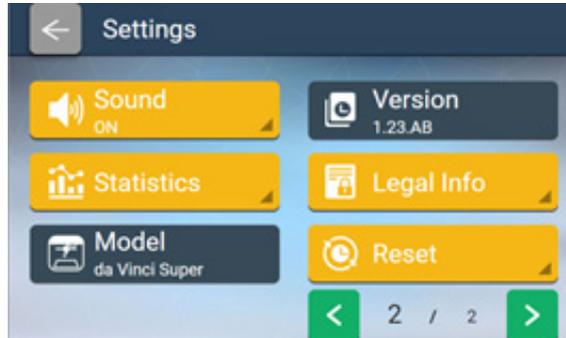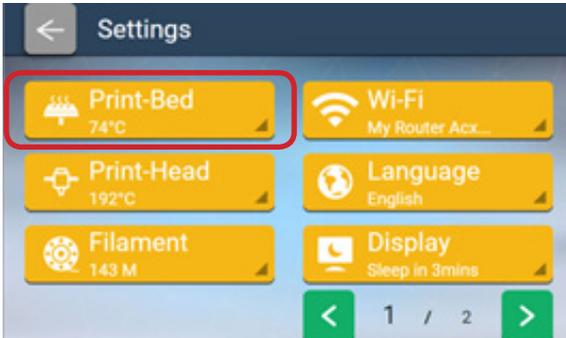

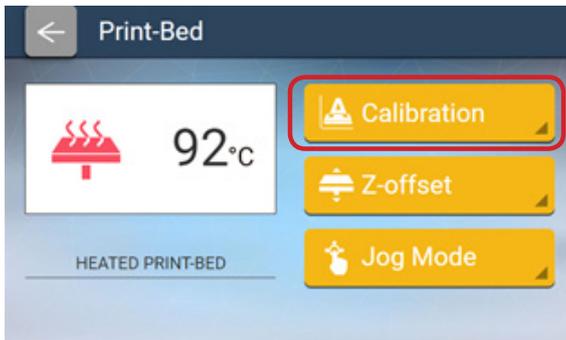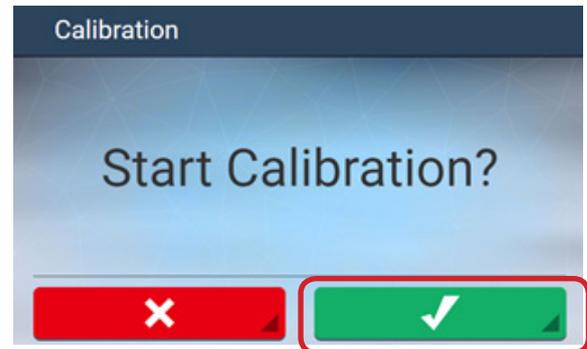|	Print Bed	Nozzle	Unloading
Temperature range	40~100℃	170~300℃	170~300℃

Settings

• Print-Bed
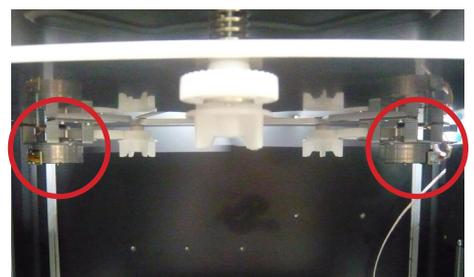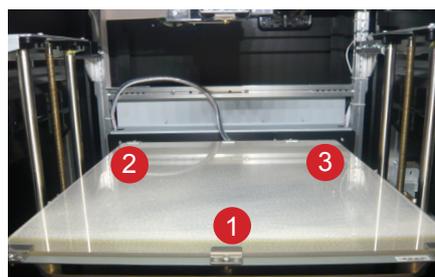
1. Select Print Bed.
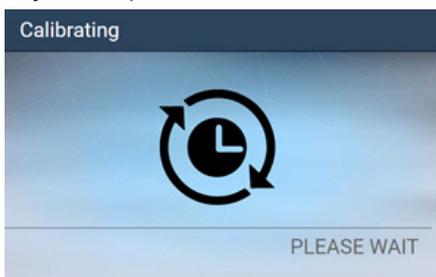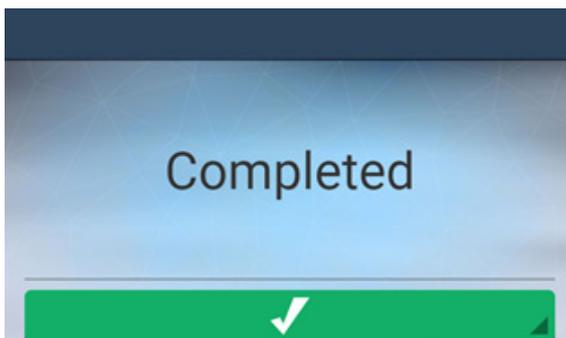

Calibration

1. Select Calibration.

2. Confirm the operation

3. The calibration starts. The printing bed goes up. The print head will move to the three testing points and measure them in order. Once the measurement is completed, the motor under the print bed will automatically adjust the print bed level.
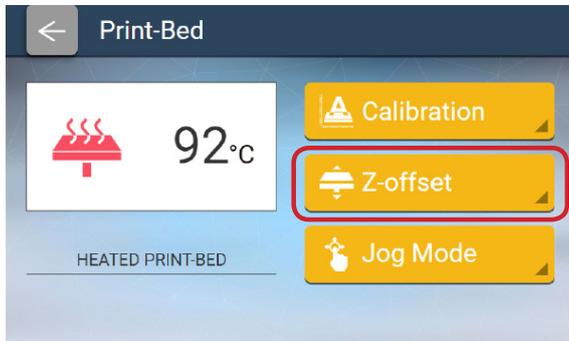

4. After the calibration is successfully completed, tap to confirm.

Z-offset

When the printing bed is calibrated, perform the vertical calibration of Z-OFFSET to ensure the print head can eject onto the printing bed smoothly.


1. It is recommended that the space between the print head and the print bed just touch and the nozzle can move smoothly on the print bed.
2. Users can tap the icon to raise or lower the print bed, the higher the value, the bigger the distance and vice versa.
3. After the adjustment is completed, tap Check to save the settings.
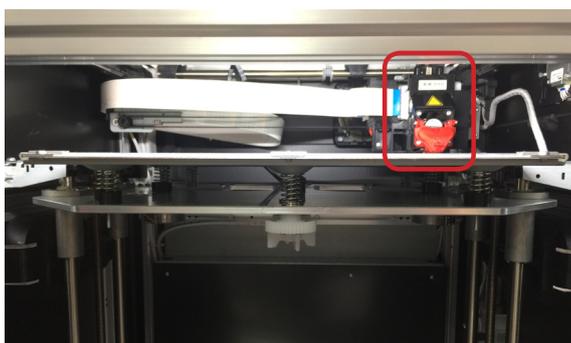

• Jog Mode

The jog mode is a function which allows you to control the position of the print head and the printing bed manually. How to move the print head:
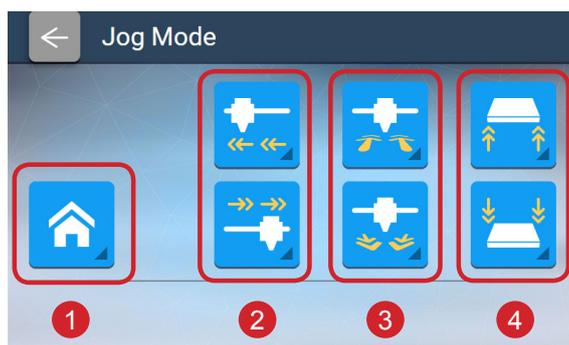
1 Return to the Home point. Always return to the Home point prior to any movement in any direction.

2 Move in the X axle direction.

3 Move in the Y axle direction.

4 Move in the Z axle direction

Home position.

- **Print-Head**

Clean Nozzle

Before cleaning the extruder nozzle, first make sure that the filament has been unloaded and that the Guide Tube has been removed.

1. Select the Clean Nozzle function and confirm the selection.

2. The print bed will be lowered and the print extruder will move to a position slightly in front of the center.
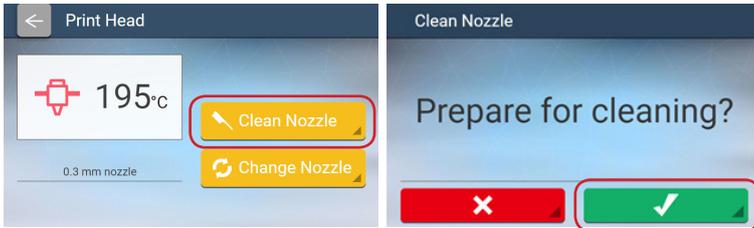
When the temperature of the print head reaches the operating temperature, the cleaning operation starts.

(Note: do not touch the metal part of the print head as it becomes hot during the operation.)

1 Inset the feed hole cleaning wire into the feed hole and push it downwards to drive out the filament from the print head.
(It is recommended that the operation is performed from the top of the machine.)

2 Remove the filament residues from the print head with a wire brush.

3 Use the tweezer to hold the extruder cleaning wire, and insert the wire from the bottom of the extruder to clear the extruder opening.

4 After the cleaning operation is completed, tap DONE.
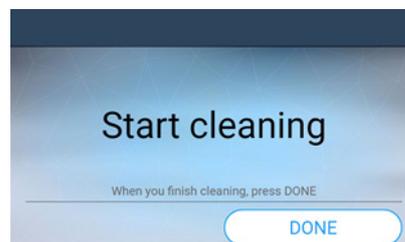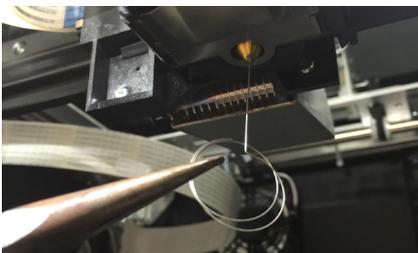
Nozzle replacement.

In order to print a wide range of different materials, the da Vinci super has a fan duct attached to its extruder module. This can be opened and closed depending on your filament type.

PLA & PETG : Close
ABS & TPE : Open

1. Tap the Change Nozzle option.
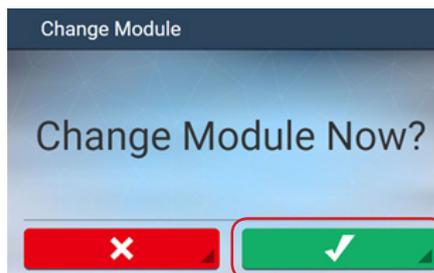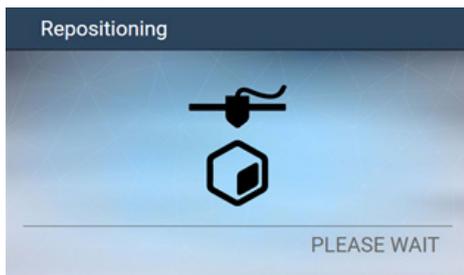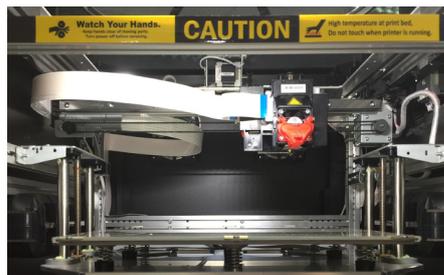
Print Head

195°C

Clean Nozzle
Change Nozzle

0.3 mm nozzle

2. Check if replacement is necessary. Tap Check to replace it.

Change Module

Change Module Now?

✕   ✓

3. Wait until the print head moves to a proper position for change.

Repositioning

PLEASE WAIT

4. The position of the print head change is shown as below.

Watch Your Hands.   CAUTION   High temperature at print bed.

5. Turn off the power before change the print head.

Change Module

Turn off printer and swap module

Restart the printer when you are done

6. Change the print head from above the machine.

7. Press the white release button to separate the print head.
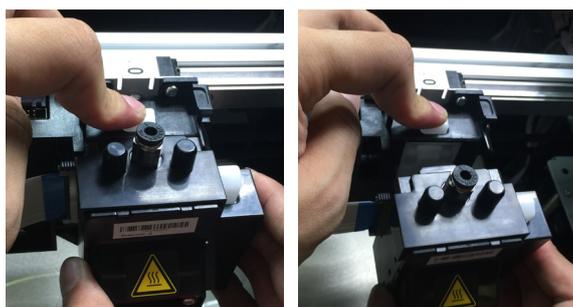
8. Hold the print head with one hand and remove the bus with the other. The removal of the print head is complete.

Installation sequence of new print head:
1. Connect the bus (make sure it clicks into place)
2. Press the white release button on the print head and assemble the print head and the mechanism. After the assembly, check if the print head is secured without shaking.
3. Turn on and use the printer.

• Wi-Fi

Preparations before printing

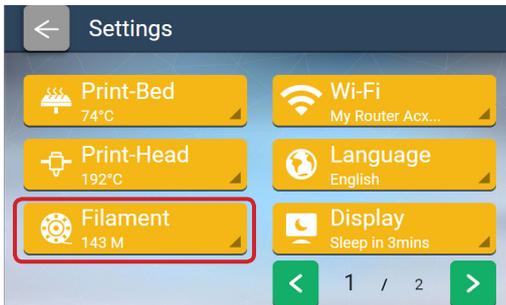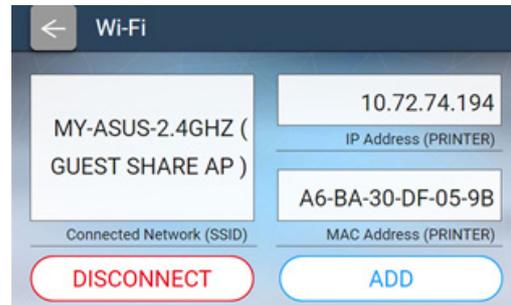- • Network printing function mainly allows the use of an Intranet. Connect both the printer and computer within the same network domain. In other words, both must be connected to the same wireless access point.
- • XYZware Pro must be used to verify wireless communication functions. Before setting up the network printing function, make sure that the latest XYZware Pro has been installed on your computer.
- • Adjust the settings of the connected wireless access point before connecting the printer. For settings on the details, refer to the user manual or information from the original manufacturer on the product.
- • The wireless printing only supports 2.4 GHz and requires a channel width of 20 MHz. For information on adjusting the channel width, refer to the instruction manual from the original manufacturer of the wireless access point.
- • Make sure that the wireless network function is switched on.
- • The printer supports the following safe connection modes. When setting up printer connections, enter information for the sharing key when required.

Add connected device (Add)

1. Select Wi-Fi.

3. Tap the access point to be used.
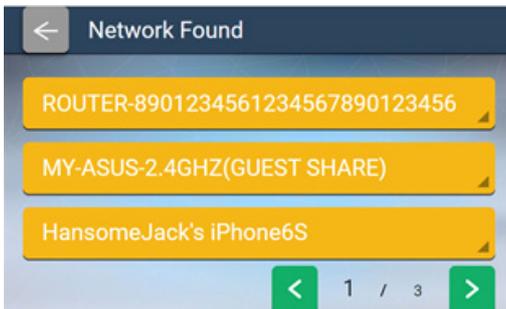
4. Enter the password required to connect to the wireless access point.

2. Tap ADD and the printer will start to search for available access points.
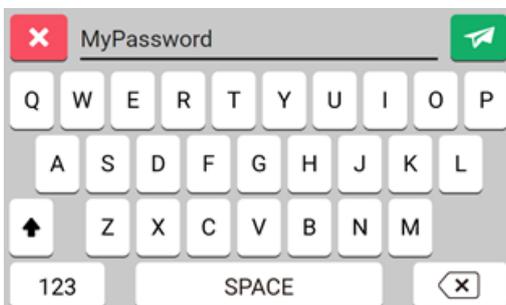
5. Confirm the successful connection by selecting the confirmation sign. The printer will be successfully connected to the wireless access point at this point.
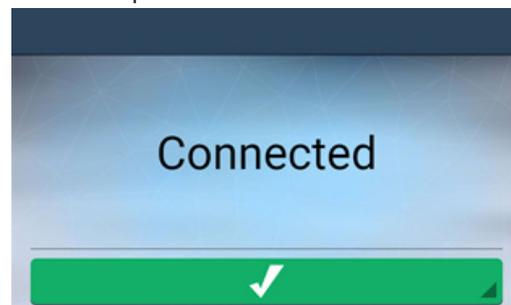
Confirming the connection in XYZware Pro

1. Open XYZware. Select the Printer Monitor button at the lower right corner of the interface.
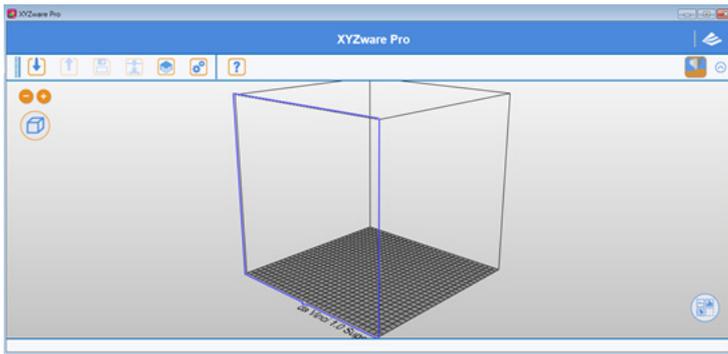
2. Select Connect by IP and then enter the IP address of the printer. To check the IP, use the IP Address (PRINTER) function on the printer control panel.
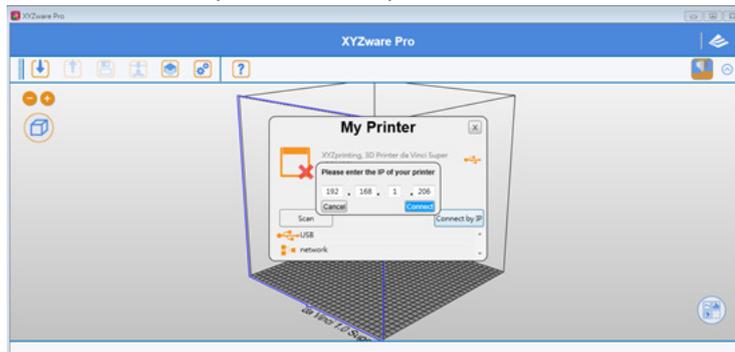
3. Confirm the connection. The printer is now able to receive files to be printed through a Wi-Fi connection.
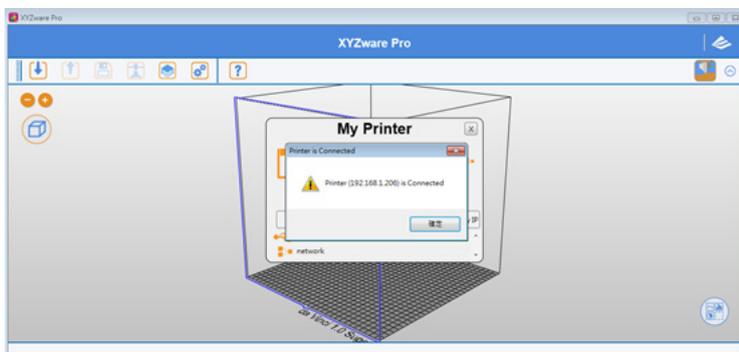
• Language

Change language settings

The da Vinci Super provides eight display languages, including traditional and simplified Chinese, English, Japanese, German, Italian, Spanish and French. The language setting can be changed by tapping Settings > Languages in the main screen.

Print

- ## Transfer files to be printed via the PC software "XYZware Pro"

  Connect the printer and computer with a USB cable and install the "XYZware Pro" on the computer to transfer the files you want to print.

A. Import .stl or .3w files.
B. Convert to .3w files.
C. Save .stl files.
D. Set printing preferences and send files for printing.
E. Print list
F. Set the language displayed for the software interface and preview color.
G. Check for and update the software and firmware versions, and open a link to the official website.
H. Display zoom percentage
I. Quick switch to the preview perspective
J. Change model position
K. Change model angle
L. Shrink or enlarge model dimensions
M. Display model-related information
N. Delete the model from the virtual platform
O. Check printer temperature, filament data, and printing progress
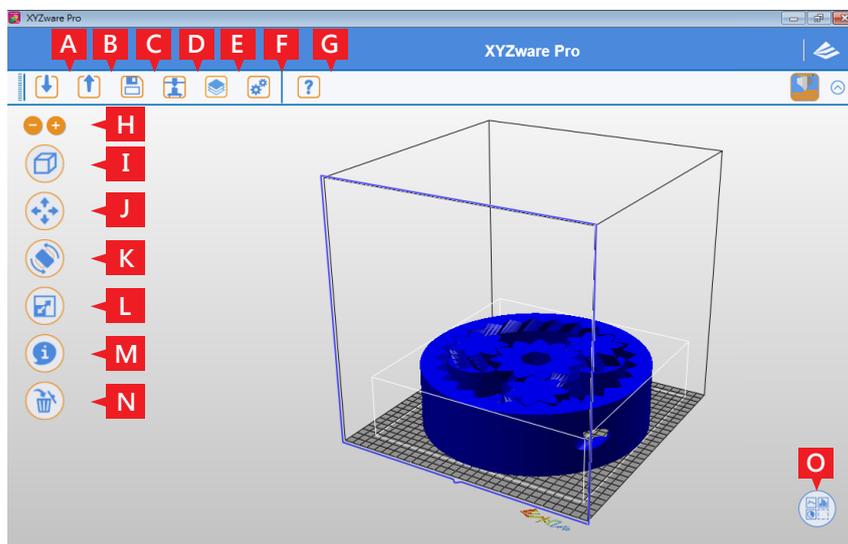
XYZware Pro can be used with Windows 7, Mac OSX 10.10 or later versions of the operating systems. You can also use the original manufacturer's USB provided with the printer to install XYZware Pro or download installation files from the official website.

Visit the official website for details: http://www.xyzprinting.com/
Select Import and choose the model files to print. After loading the files, the size, printing position, and angle of the objects can be adjusted accordingly.
The user may use the Convert function and change relevant settings to satisfy printing speed and effectiveness.
After editing and adjustments, select Print to export the object. The model file will be sectioned and then printed accordingly.
Visit the XYZprinting official website for more information on version updates, operating instructions, and technical support: http://www.xyzprinting.com/ for more details and information.

Supporting information

If your printer experiences problems, review the following troubleshooting instructions to resolve the issue. If the issue persists, contact the customer service center.

Issue code and troubleshooting

If your printer experiences problems, a relevant service code will be displayed on the printer screen and/or software interface. Please refer to the following service code description table for initial troubleshooting.

Error Code No.	Failure Description	User Action
0 0 1 0	Print bed heated for too long	Please reboot or check the print bed heater & thermistor harness connection (need to open back cover).
0 0 1 1	Print head heated for too long	Please check the Flexible flat cable and reboot.
0 0 1 3	Print bed heated issue-- temperature exceed	Please reboot or check the print bed heater & thermistor harness connection (need to open back cover).
0 0 1 4	Print bed heated issue-- temperature exceed	Please check the Flexible flat cable and reboot.
0 0 3 0	Abnormal--X axis	Check the X axis cable of the motor and the sensor, and check the X axis position of the sensor.
0 0 3 1	Abnormal--Y axis	Check the Y axis cable of the motor and the sensor, and check the Y axis position of the sensor.
0 0 3 2	Abnormal--Z axis	Check the Z axis cable of the motor and the sensor, and check the Z axis position of the sensor.
0 0 5 0	Internal communication error -- memory error	Reboot the printer.
0 0 5 2	Print head memory error	Replace the print head.

Post-sales maintenance and services

Please retain the original packing materials. We recommend packing the printer in its original packaging before sending the printer for repairs during the warranty period. Using other packing materials when sending the printer may result in damages during the shipping process. XYZprinting reserves the right to charge maintenance fees when this occurs.