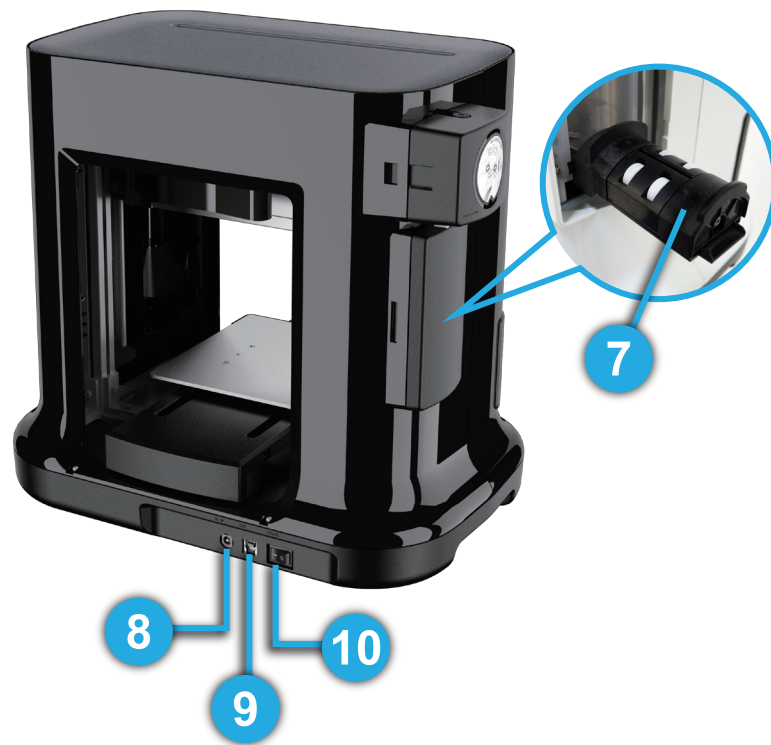
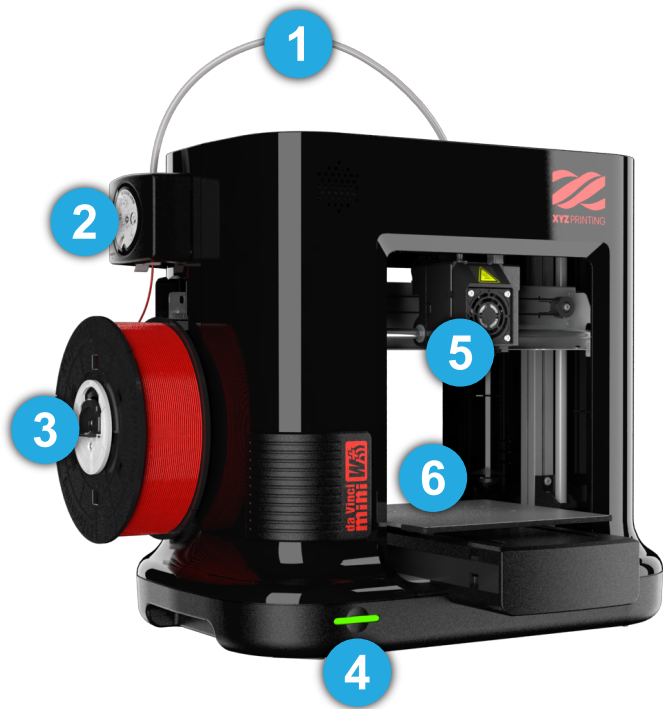


# da Vinci mini w<sup>+</sup>

## User Manual

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## Product Overview

- 1 Guide tube
- 2 Feed module
- 3 Filament
- 4 Function button / status indicator
- 5 Extruder module
- 6 Print bed
- 7 Filament holder
- 8 Power connector
- 9 USB port
- 10 Power switch

## Specification

Dimensions	400 x 336 x 362 mm
Weight	8 KG
Print Technology	Fuse Filament Fabrication (FFF)
Print Material	PLA/ Tough PLA/ PETG
Filament Diameter	1.75 mm
Nozzle Diameter	0.4 mm
Print Dimension	150 x 150 x 150 mm
Print Resolution	0.1/0.2/0.3/0.4mm
Connectivity	USB 2.0/ WiFi
Print Software	XYZmaker
File Format	.stl , XYZ Format (.3w), 3mf

## Button and Indicator light

Indicator signals	Status	Action
Solid green	Standby/Ready to print	-
Flashing green	Receiving data	-
Solid red	General error	Press the button to return to printing status, refer to instructions in software to fix the issue.
Flashing red	Critical error	Refer to instructions in the software to solve the issue or reboot the Mini.
Solid orange	Printing	To pause the print, press the button once. To cancel the print, press and hold the button for 5 seconds.
Flashing orange	Paused	To resume the print, press the button once.
Pulsing orange	Job complete (printing complete / printing cancellation complete)	To return to <b>Ready to print</b> , press the button once.

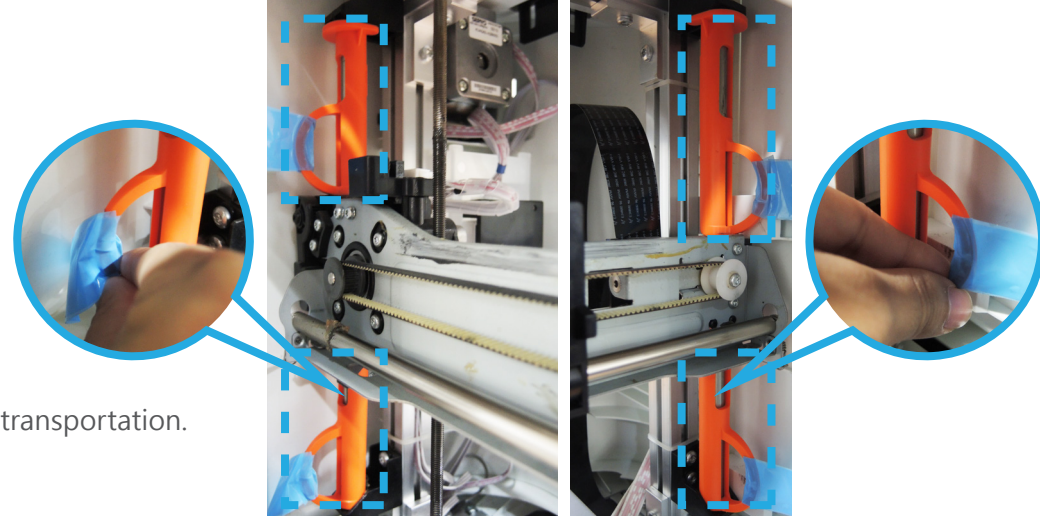
If the printer encounters issues, please refer to the XYZmaker screen troubleshooting instruction to fix the issues.

# Unpacking

- Before using this printer, remove all fixed materials from the extruder module and print bed. Switching on the printer without removing these fixed materials may damage the machine.
- Be sure to remove the 4 clips from the shafts as illustrated on the right.

## Notes

Keep original packaging materials in case you need to send your unit back for repair during the warranty period.  
 If other packing materials are used instead, the printer may become damaged during transportation. In such a situation, XYZprinting reserves the right to charge a repair fee.



# Accessory Checklist

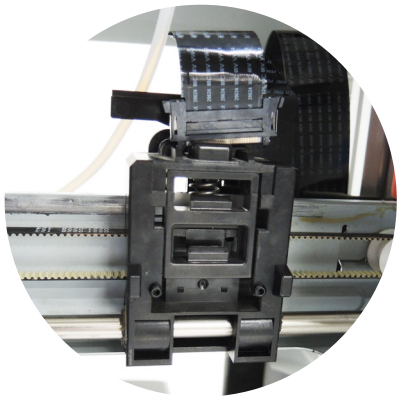
1. Quick Guide, Warranty Card 	2. Power Adapter 	3. Power Cord 	4. USB Wire 	5. Extruder Module 
6. Scraper 	7. Guide Tube 	8. Bundled Filament 	9. Filament Spool Ring (installed on the filament spool) 	10. Bed Tape X 3pcs ( Only replace the reusable tape when it is worn. ) 
11. Cleaning Brush 	12. Feeding Path Cleaning Wire 	13. Cleaning Wire x 5 	14. Leveling tool 	15. Feeding Tube Grip X1 (For replacing and installing the Feeding Tube Grip, please watch the tutorial video on XYZprinting official website) 

# Important Safety Notes

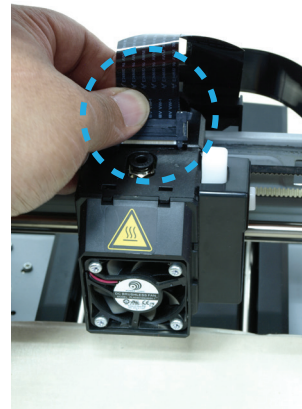


- Do not use the printer in dusty high humidity or outdoor environments.
- Place the printer on a stable and even surface to avoid it falling and causing serious injury.
- Do not put your hand into the machine during operation to avoid collision risk due to movement of the machine or to avoid burn due to high temperature.

## Installing the Extruder module

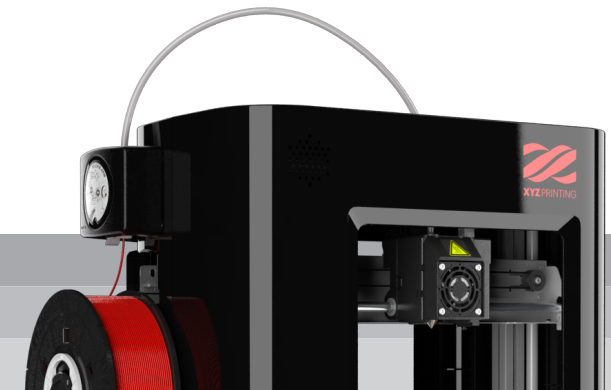
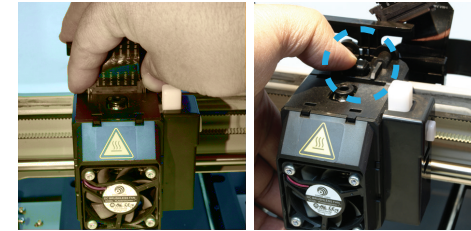


- 1 Make sure that the printer is powered off. Place the extruder module that the fitting pin is secured the proper location.



- 2 Insert the black ribbon connector to complete the installation.

NOTE: To unload the extruder module, first detach the heating bus and press the black disengage button.



## Installing the Accessories

### 1. Install the guide tube



- 1 Ensure that the guide tube has been tightly inserted into the port.



- 2 Feed the guide tube through the slot at the top of the printer to the extruder module.



- 3 Ensure that the guide tube is properly inserted into the feed port of the extruder module to complete the installation.

## 2. Installing the Filament spool ring

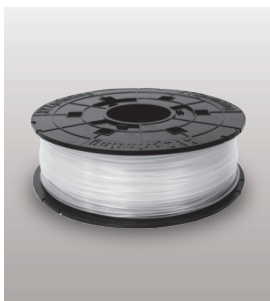
(please refer to this step if the axle ring is not installed on the spool)



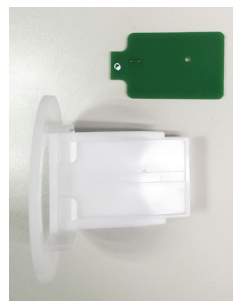
**1** Use a phillips screwdriver to loosen the securing screws of the filament spool ring.



**2** Separate the spool ring from both sides of the spool.



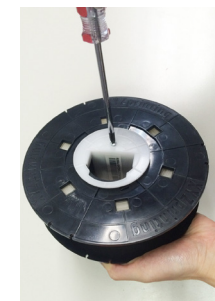
**3** Retrieve the filament spool and chip.



**4** Install the sensor chip. Note the orientation of the sensor chip on the spool ring.

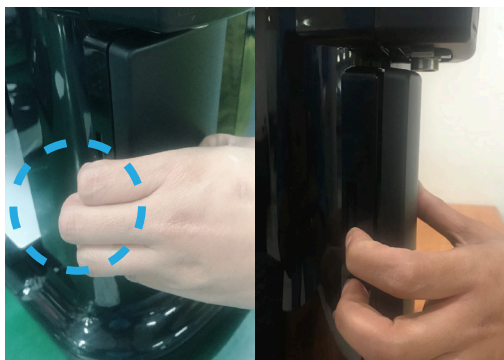


**5** Feed both parts of the spool ring through the center hole of the spool and assemble them together.



**6** Use a phillips screwdriver to tighten and secure the spool ring to complete the installation.

## 3. Installing the filament



**1** Remove the side cover by pressing down firmly at the center on the left side of the cover and pushing aside the cover. (pay attention to where you apply your force to ensure proper dismantling) Keep the side cover securely for future use.



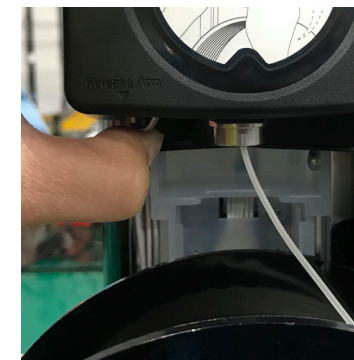
**2** Lower the filament spool holder on the left side of the printer until horizontal.



**3** Place the assembled filament spool (with the spool ring) on the spool holder.



**4** Take the tip of the filament and insert it into the feeding hole.



**5** Press the release arm and push the filament all the way to the bottom so that the front end of the filament is completely inserted into the extruder module.

### Handy tips

- The filament will load better when the tip of the filament is cut at a 45° angle.
- When the printer is not in use, raise the filament spool holder and close the side cover.



# XYZmaker operation

After completing the hardware installation, download XYZmaker from the XYZprinting official website and install it on your computer.

Before launching XYZmaker, connect the printer to your computer using the supplied USB cable and turn it on. For an optimal user experience, we recommend following the instructions below:

## Print

### Handy tips

Registration via XYZmaker before your first print is strongly recommended. When registered with XYZprinting, you will receive latest technical supports and updates. To register, simply click "Register Now".

Before you start printing, please attach the bed tape to the print bed. The print bed tape is reusable, and can be replaced worn.

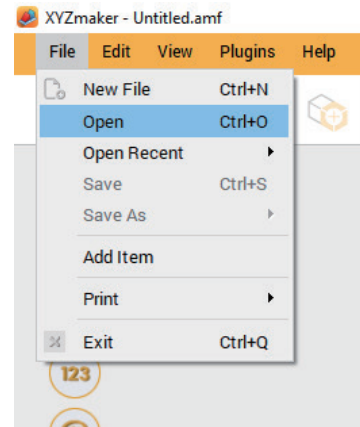
If the room you are printing in is below 25 °C/ 77 °F, for greater adhesion, apply glue to the bed tape.

After printing has started, check if the first layer is stuck to the print bed. Good base layer is one of the keys to successful printing.

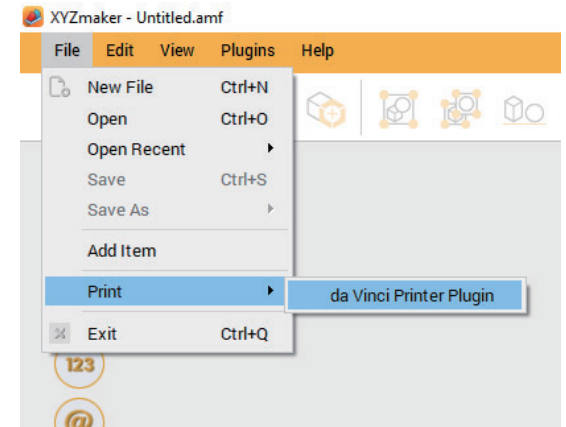
1 Open XYZmaker



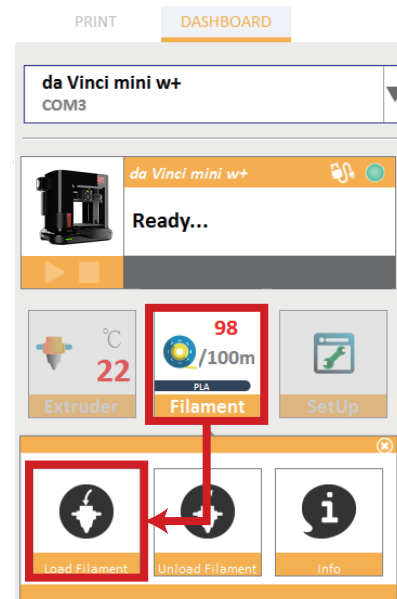
2 Click "File" on the TOOL BAR to select the sample file to be printed.



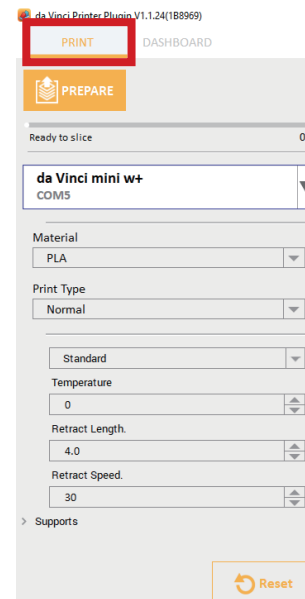
3 Open Functions panel



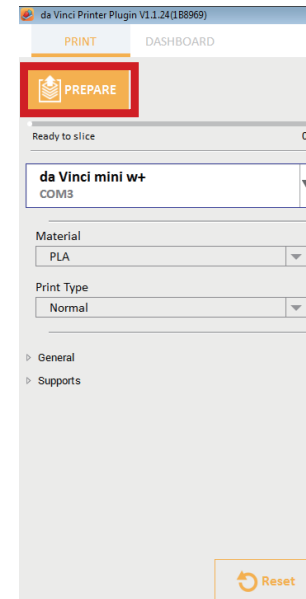
4 Load filament



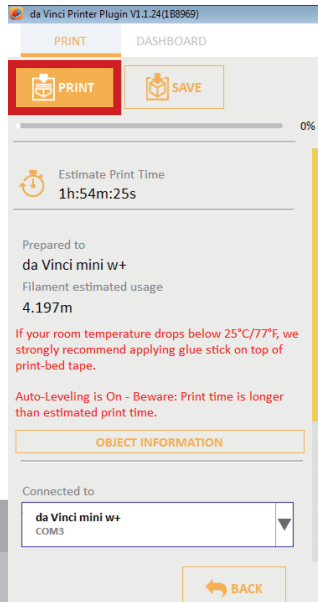
5 Print Setting



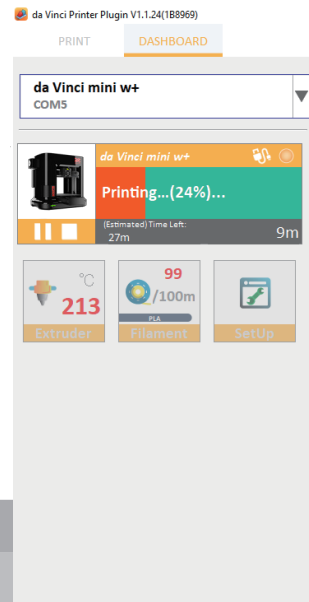
6 Click "Print Prepare" to perform slice.



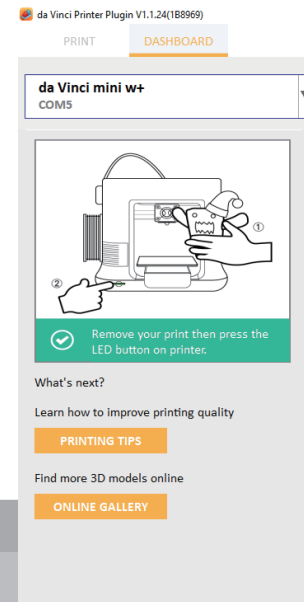
## 7 Print



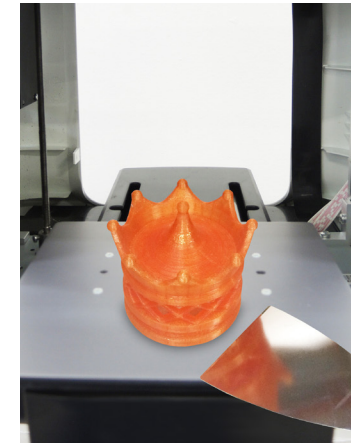
8 The printing status, including the printing progress, elapsed time, and remaining time, will be shown while printing. You can pause or cancel the printing task in this window.



9 When done, "Printing Complete" will be shown on screen.



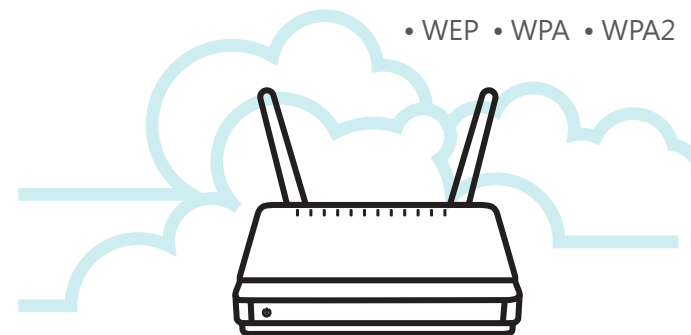
10 After the print has finished, use a scraper to remove the printed object.



## Wi-Fi setup

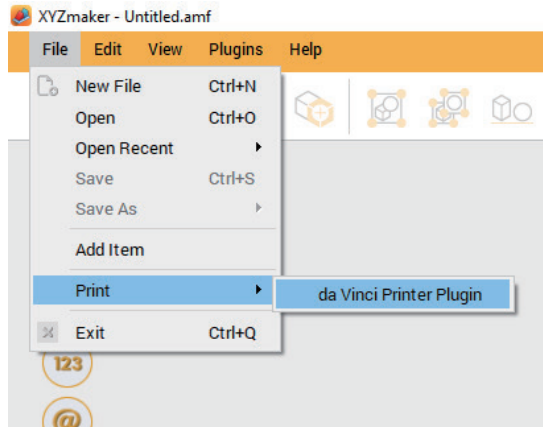
### ● Pre-setup

1. The network printing function is only available when the printer and the computer are both connected to the same wireless network.
2. Before connecting the printer, your wireless network settings need to be adjusted. For more information, refer to the instruction manual of your wireless router.
3. The wireless network's channel width needs to be set to 20 MHz for the printer to connect to it wirelessly. Refer to the vendor instruction manual for more information.
4. The Mini supports WEP, WPA, and WPA2 security encryption standards. Wireless pass word information will be requested when setting up the printer connection.

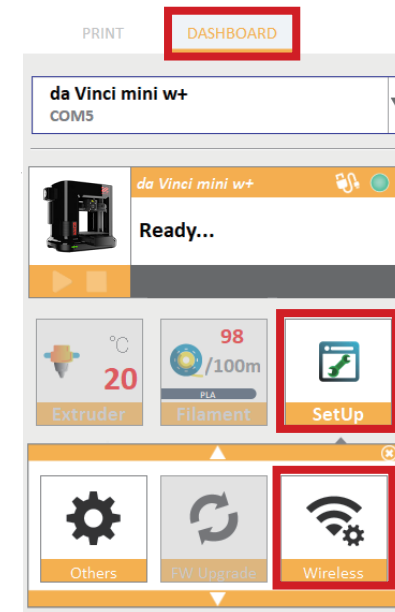


# ● Setting up Wi-Fi

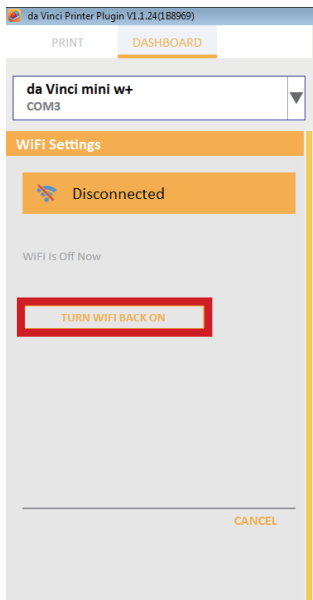
- 1 Connect the printer to your computer with the USB cable, and open "XYZmaker".
- 2 Click TOOL BAR's File> Print> da Vinci Printer Plugin at the top of the screen to open the "Printer Operation Function."



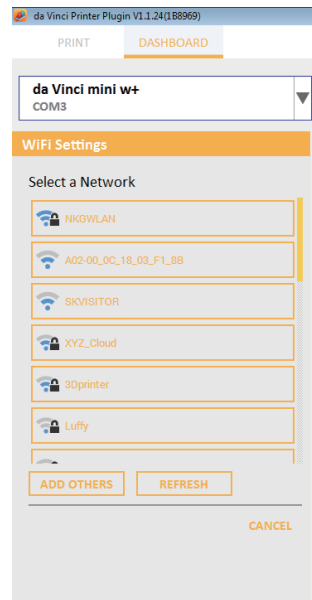
- 3 After the printer operation function window opens, select "Dashboard"> "Setup">, click on "Wireless " to enter the wireless network setup screen.



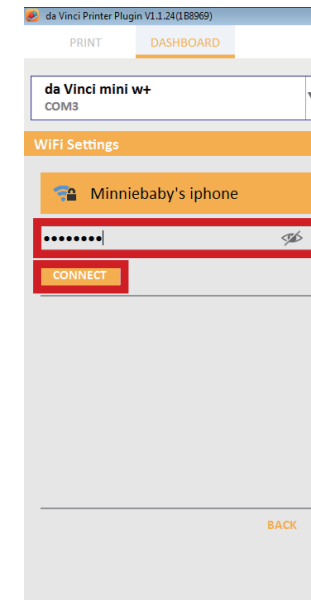
- 4 click "TURN WIFI BACK ON"



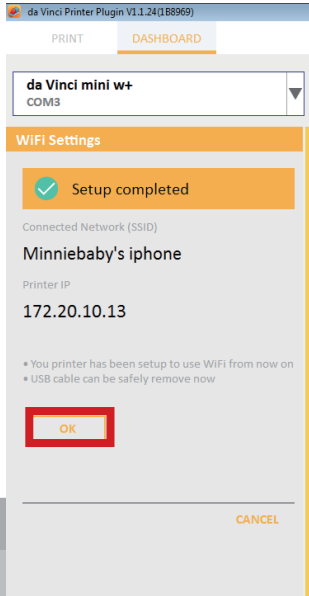
- 5 Please select a wireless network name that you want to connect to and click twice.



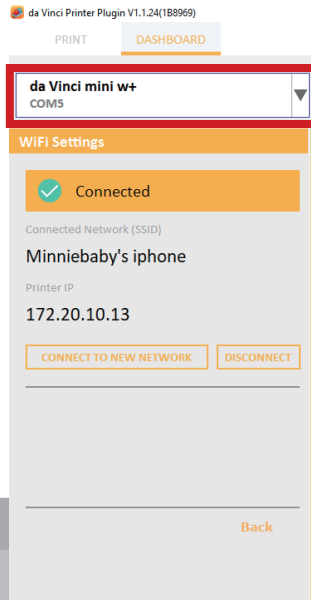
- 6 Then enter the password and click on "Connection" to wait for the connection.



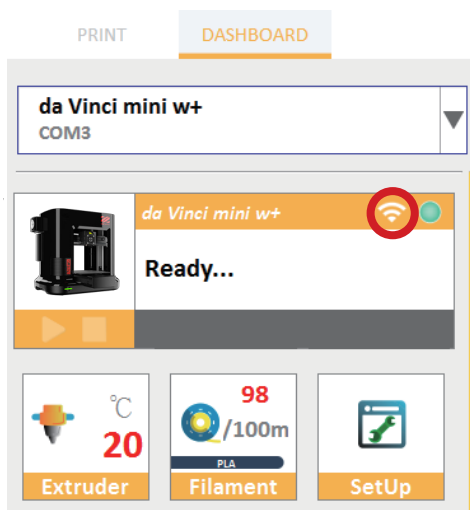
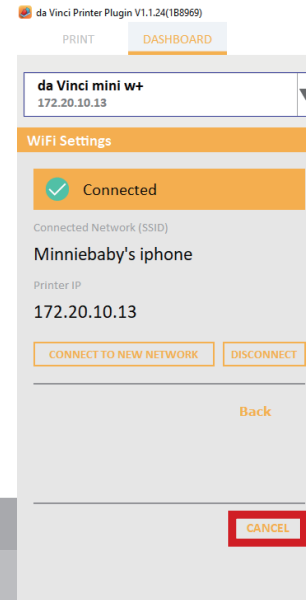
7 After the screen shows completing WiFi setup, click "Confirm."



8 Then connect the printing machine name above to the COM port, pull down the menu to the same new connection wireless network, click "Back".



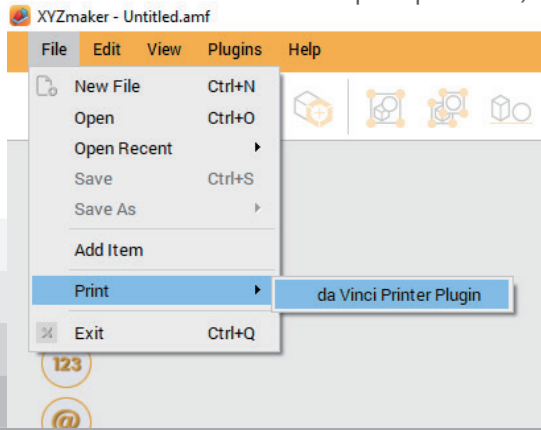
9 Once the connection method has been changed from USB to Wi-Fi, you can unplug the USB cable and continue with the printing process.



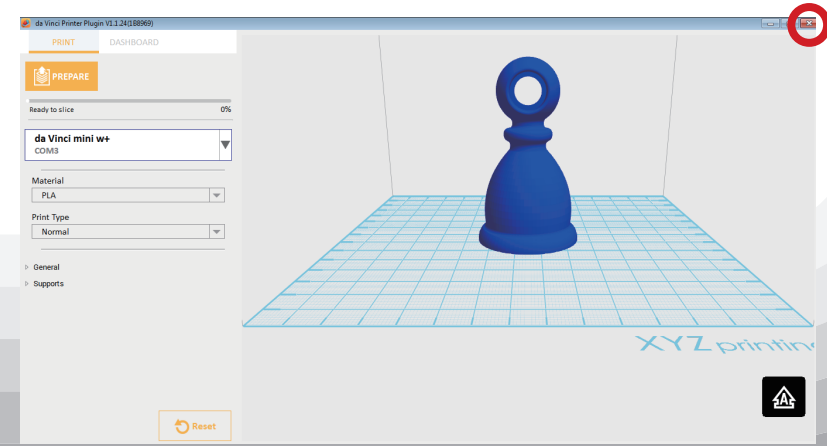
Note:

- Name the printer and wireless network with the alphanumeric characters only.
- If no connection is detected within 90 seconds, the printer will time-out. If this is the case, check that the configuration process is correct and try again.
- Confirm your wireless network's security key on the router's wireless settings page.
- The recommended wireless connection distance between your printer and the wireless networking device needs to be within 10 meters. The connection quality, will depend on the power of your networking device, and the environment you are connecting the two devices in. For more information, please refer to your networking device's instruction manual.

When using the software to operate the printer, one must first place filament spool ring pre-loaded with the filament at the axis to activate XYZmaker. Click on the Printer Monitoring function at the lower right corner to activate the operating function. Then select the **Printer Monitoring** function icon to activate the USB connection (this step would be similar to Wi-Fi setup steps 1 to 5).

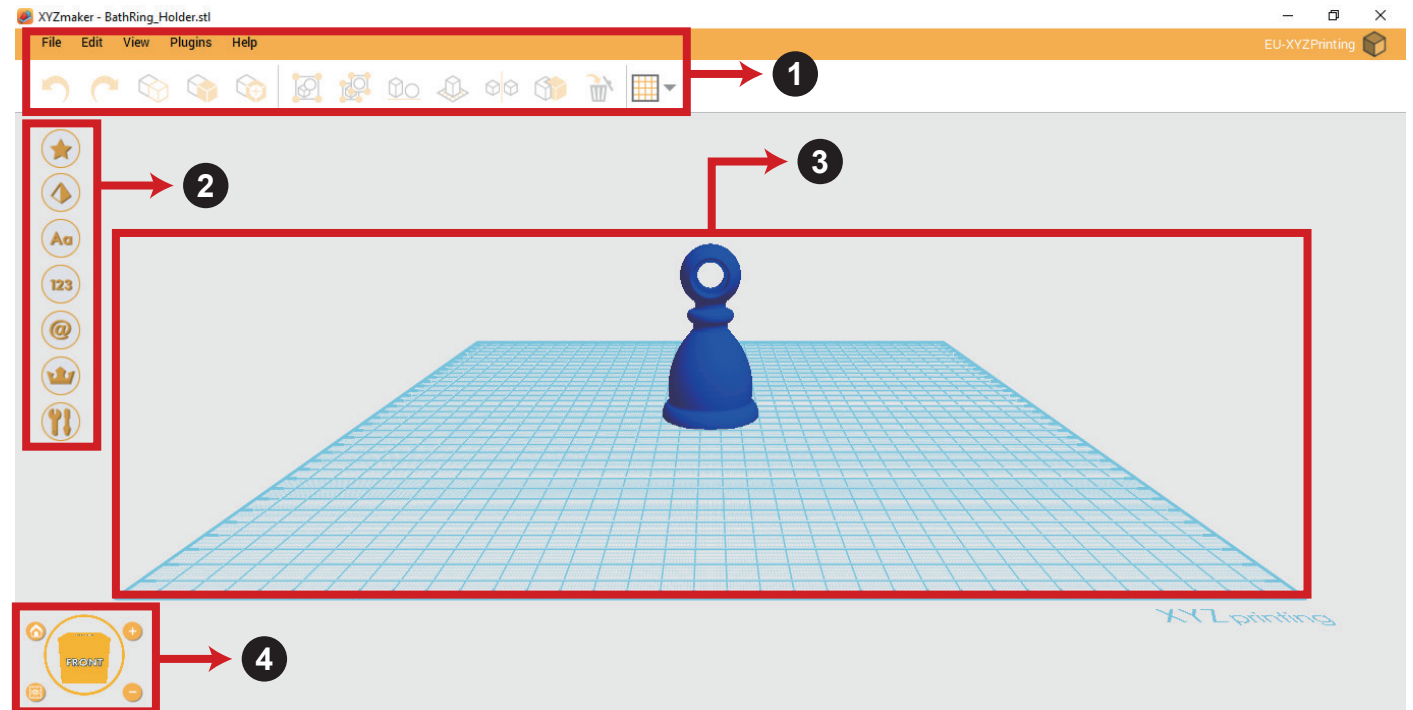


The USB cable can be removed once the printing file has been transferred. To monitor printing status, please re-connect the printer and computer with the USB cable and re-activate the Printer Monitoring (function). If information shown on-screen is not updated accordingly, you may switch off the operation function screen and then switch it on again. (Reload)



## Operating the printer with XYZmaker

- 1 **TOOL BAR**  
Fast function column to select commonly used functions.
- 2 **MODEL**  
3D graphics library, click to load.
- 3 **WORKPLANE**  
3D workspace
- 4 **VIEW TOOL**  
Switch the viewing angle to facilitate viewing of objects from various angles.



※ For details, please refer to "XYZmaker Software Operation Manual". Welcome to XYZprinting official website: [www.xyzprinting.com](http://www.xyzprinting.com) to download.

# Functional descriptions

## ① Extruder



## Clean Nozzle



Once this function is selected, the nozzle will heat up automatically and move the nozzle to a proper location where you can easily clear away all residual filaments in the nozzle.

## Info

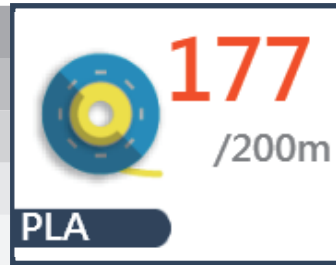


The extruder module information, including Temperature, Nozzle Diameter, Total Print Time, and Serial Number.

### Nozzle

Type	Printer Extruder
Temperature	42 °C
Nozzle Diameter	0.4 mm
Total Print Time	0m
Serial Number	GB00020000TH61L0006

## ② Filament



## Load Filament

Please follow the on-screen instructions.



Please follow the on-screen instructions. The printing module will automatically move to the working position. The nozzle will then heat up to the operating temperature. Please wait for the extrusion process to finish. Verify that the nozzle is capable of extruding the filaments to demonstrate proper loading of the filaments. If not, please repeat the filament loading process.

## Info



Information related to filament use

### Filament

Printing Material	PLA
Color	Gold
Remaining Material	100 m/100 m (100 %)
Serial Number	GBP3OCA64N0017

## Unload Filament

Please follow the on-screen instructions.



Please follow the on-screen instructions. The printing module will automatically move to the working position. The nozzle will then heat up to the operating temperature. Please wait for the unload filament process to finish.



Note: The end tip of the ejected filament may exhibit some residual effects. This is considered a normal phenomenon.

### 3 SetUp

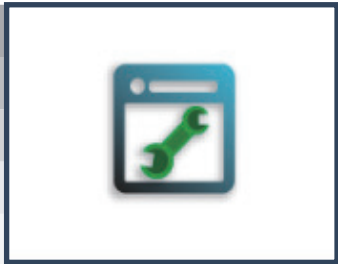
1. Jog Mode

2. Calibrate

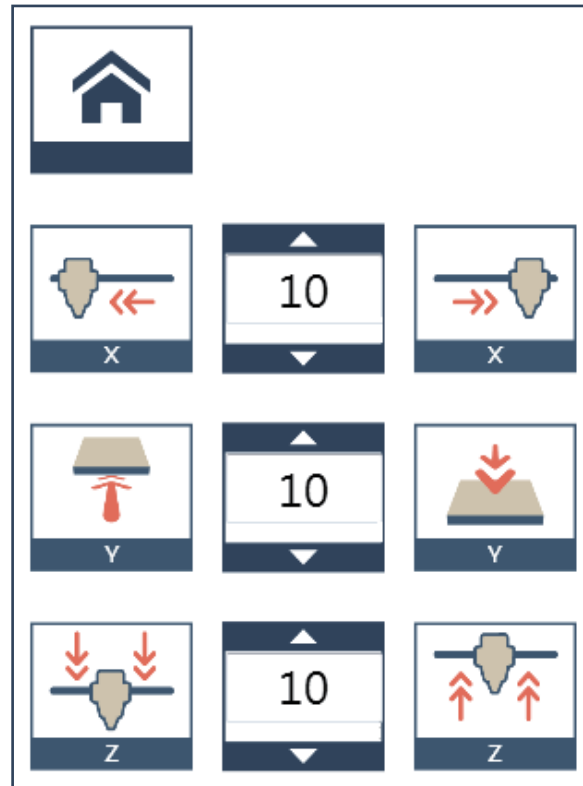
3. Z-Offset

4. Others

5. Info



1. Jog Mode



Manually adjust the movement of X/Y/Z Axis for printer maintenance. First click on [Home Axes]. The printing device will be returned to the initial axis position at the lower left corner of the printing area. Then adjust the positions of the printing module (X-AXIS), printing platform (Y-AXIS), and printing axes (Z-AXIS). Select "X-AXIS" to move extruder rightwards and leftwards. Select "Y-AXIS" to move print bed forwards and backwards. Select "Z-AXIS" to move the print axis (Z-AXIS) upwards and downwards.

The user may manually enter the adjustment value:  
Range: 1 to 150; step: 1 mm

## 2. Calibrate

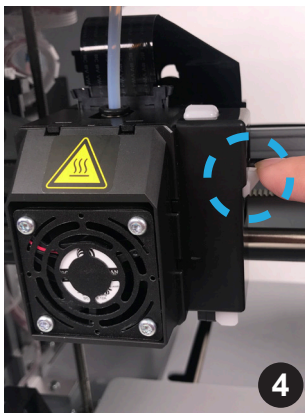
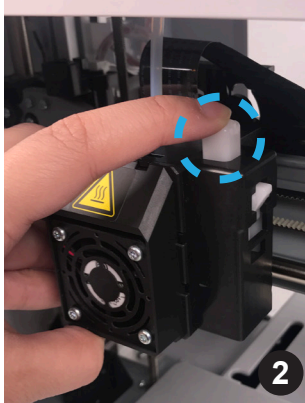
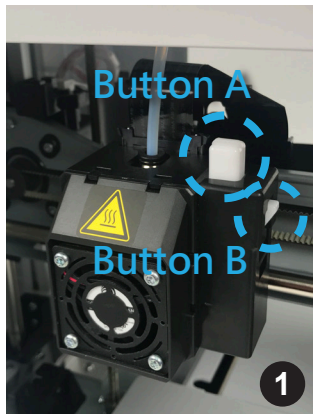


Please follow the on-screen instructions.

Platform calibration may be implemented before the printing process. The printing device may move to the lower left corner of the printing area. Please refer to the platform calibration instructions provided in the software.

Before calibration, press **Button A** of the printing module. After calibration, press **Button B** on the printing module in order to retract the sensor device.

If calibration was failed, please make sure that **Button A** (detector) has been pressed before restarting the calibration process.



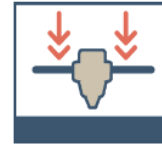
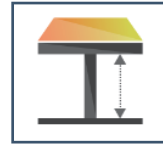
## 3. Z-Offset



Upwards and downwards to adjust the printing distance between the bed and printing module.

Each adjust has a step of 0.05 mm.

If the first layer distance is too high (too large) or too low (too close), we recommend you using z-offset to adjust the printing distance.



## 4. Others



- Automatic horizontal calibration  
Automatic horizontal calibration may either be ON or OFF. Default: ON. The software would automatically implement horizontal calibration and compensation accordingly. Printing speed may be improved if automatic horizontal calibration has been switched OFF. However, this may affect printing quality.
- Buzzer  
Buzzer is turned on by default, you can select "OFF" to change the setting. When the buzzer is turned on, the printer will output an audible signal when a button is pressed, receiving data, print job is finished, or issue is detected.
- Restore Default  
Clicks "Restore Default" all settings will be reset to factory default.


## 5. Info




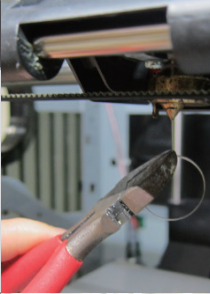


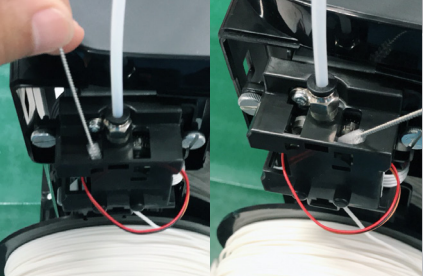

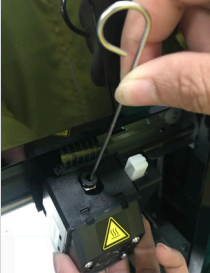
Printer Info	Connection Info	Calibrate Info
Printer Name and Printer Type	Connection Type	Calibrate Value
Serial Number	Printer IP	
Firmware Version	WiFi MAC Address	
Total Print Time	SSID	
Last Time	WiFi Signal Strength	

## Using the accessory tools

Accessory tools can be used only in an environment with guidance or monitoring by adult. Do not allow children to obtain maintenance tools in unfamiliar situations in order to avoid danger.

Maintenance Tools	Usage	Application method
Scraper 	Taken off the printing object	After print is finished, the printing object may be taken off with Scraper.

Filament should be unloaded from the extruder before cleaning the feeding path. Care should be taken during the operation to avoid potential burn injuries.

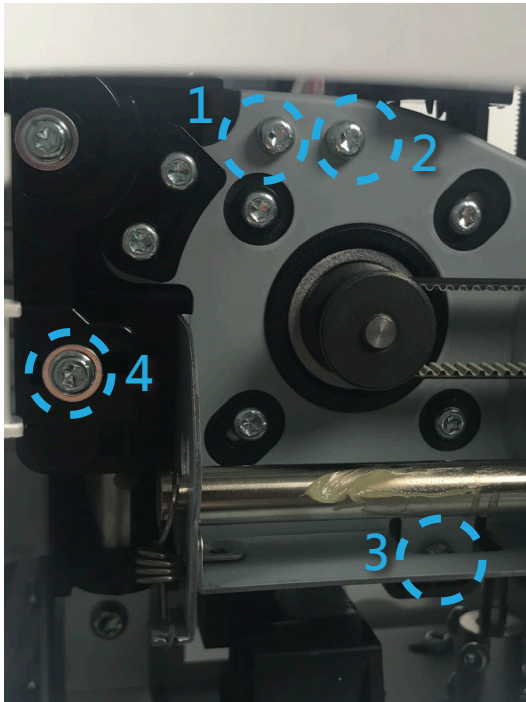
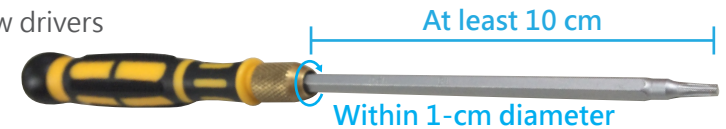
Cleaning Tools	Usage	Application method	
Feeding Path Cleaning Wire 	<b>Clean Nozzle</b> In order to prevent print quality from impact due to residual and accumulated filament, which results in poor discharge.	we recommend you to clean nozzle for every 25 hours of print. Please clamp the nozzle cleaning wire with needle-nosed pliers to insert it into the opening of the nozzle carefully for cleaning.	
Cleaning Brush 	<b>Clean gearwheel</b> After long periods of use, the automatic feed system may have experience unstable extrusion of the filaments due to buildup of residual materials within the filament channels.	The printer filament feed module should be cleaned after cleaning the nozzle. To do this, please switch off the power first. Open the feed module cover and clean the gears using a gear cleaning brush.	 
Cleaning Wire 	<b>Clean Feeding Path</b> If the cleaning cycle does not unclog the extruder, try cleaning the feeding path by using the feeding path cleaning wire.	<ol style="list-style-type: none"> <li>1. Switch on the power and activate the "Clean Nozzle" function by using the software.</li> <li>2. Release the extruder module (don't remove the heating cable at the side).</li> <li>3. Insert the thick cleaning wire into the feeding path all the way down and "floss" the inside of the nozzle to push the residue out.</li> <li>4. After cleaning the feeding path, reinstall the extruder module.</li> </ol>	

## Print Bed Adjustment

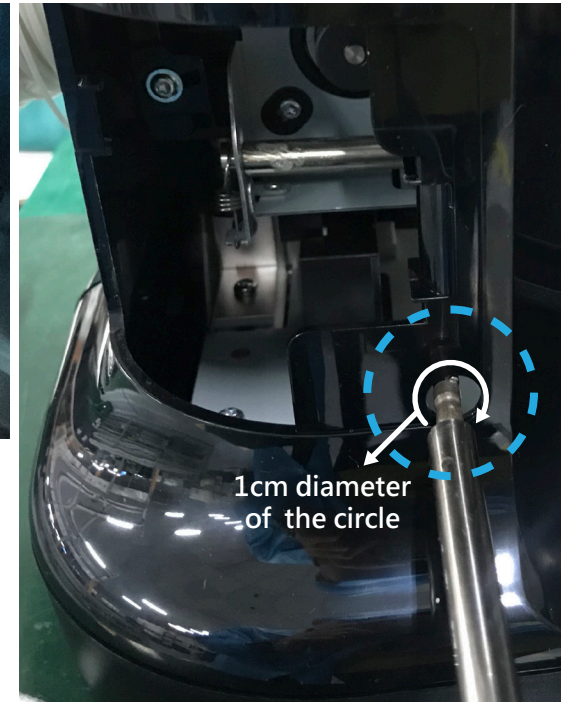
Tools to prepare: ① Leveling tool



② T10 screw drivers



- ① Use Jog Mode and Home Axes functions to move the Z-AXIS to its original position at the bottom.
- ② Open the cover in front of the left side.
- ③ Use Jog Mode and move the Z-AXIS upwards by 10 mm.
- ④ Manually move the printing module to the right side to prevent affecting its calibrated position.
- ⑤ Place the adjustment tool on the platform directly below the X-AXIS support.
- ⑥ Loosen the 4 screws shown on the diagram. Do not loosen any of the other screws. (Note: You only need to loosen the screws, not remove them completely).
- ⑦ Use the Jog Mode and move the Z-AXIS downwards 1 mm at a time until it is completely aligned with the X-AXIS support and calibration tool.
- ⑧ Check that the calibration tool and X-AXIS support are in full-contact with each other, then tighten the 4 loosened screws.



## Support Details

As the printer encounters issues, please refer to the following troubleshooting instruction to fix the issues. If the issue cannot be removed, please contact customer service center.

## Maintenance and Service

Keep original packaging material in the event of sending your unit back for repair. If other packing materials are used instead, the printer may be damaged during the transportation process.. In such situation, the XYZprinting the right to charge repair fee.

## Error message and Action

In the event of problems, related service code will be shown on the software interface. Please refer to the description table of the service code for preliminary examination.

Error Code No.	Software interface	Action
0007 0008	Cartridge 1 Error. Please remove cartridge and install again. If errors exist, please contact service center for support.	Reinstall or replace the filament cartridge.
0011 0014	Heating Error. Please turn off the printer and contact service center for support.	Check whether the connections are connected properly and restart as required.
0016	Cartridge 1 not installed properly. Please reinstall Cartridge 1 ("Unload Filament" then "Load Filament") on your printer. If error persists, please contact service center for further support.	Reinstall the filament cartridge.
0028	Cartridge 1 can not be found. Please install one.	Reload or replace the filament.
0029	There is no filament left in Cartridge 1. Please replace Cartridge 1 before printing.	Replace filament immediately.
0030	Printer motor Error(X-Axis) If errors exist, please contact service center for support.	Check motor/sensor connections. Check sensor position.
0031	Printer motor Error(Y-Axis) If errors exist, please contact service center for support.	Check motor/sensor connections. Check sensor position.
0032	Printer motor Error(Z-Axis) If errors exist, please contact service center for support.	Check motor/sensor connections. Check sensor position.
0051	Flash ram cannot be read/written.	Reboot the printer.
0052	Memory in the extruder cannot be read/written.	Replace the nozzle.
0054	Incompatible Nozzle	Turn off printer and reinstall compatible nozzle, then turn your printer back on. If this error persists, please contact service center.
0201	Computer and printer connection issues.	Re-connect the computer with the printer. Alternatively, you may use hot plugging of the USB cable to connect the computer with the printer.
020D	File is printable by: da Vinci XXX	This shows that this file type is not supported. Please select a proper printer model instead.