



- ▶ Product Overview
- ▶ Unboxing
- ▶ Software Introduction
- ▶ Accessories Installation
- ▶ Functions
- ▶ Selective Module
- ▶ Product Specification
- ▶ Maintenance and Support Details

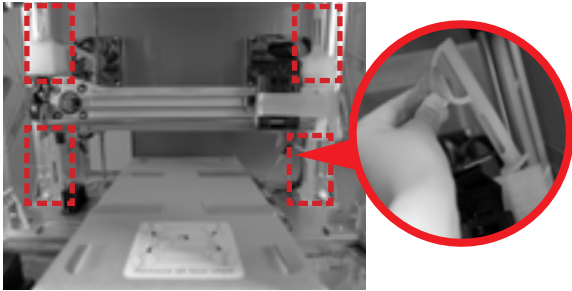
The purpose of this user manual is to help users understand and use the da Vinci Jr. Pro X+ 3D printer correctly. It contains the operating instructions, maintenance information and application skills of the da Vinci Jr. Pro X+ 3D printer. To learn more about the latest news of the da Vinci Jr. Pro X+ 3D printer, please contact local dealers or visit the official website of XYZprinting: <http://www.xyzprinting.com>

## Trademarks

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

## Editions

New editions of this manual incorporate new and changed material different from previous editions. Minor corrections and updates may be incorporated into reprints of the current edition without releasing additional announcements or documentation regarding the updated version. The User Manual is for user reference only. If you need to obtain the latest information, you are welcomed to visit the XYZprinting website: [www.xyzprinting.com](http://www.xyzprinting.com)



- 1 Before using this printer, please first remove the fixed materials from the extruder module and print bed. Switching on the printer's power without removing these fixed materials may damage the machine.



- 2 Before launching XYZmaker Suite, connect the PC to the printer by using the USB cable. For a better user experience, it is strongly advised to follow the proper procedure for using the product.



- 3 Registration via XYZmaker Suite 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" to begin.



- 4 XYZprinting has shipped a piece of PC Sheet attached on the print bed. PC Sheet can be reused.

- 5 After printing the object, it is recommended that use the alcohol to clean the print bed to avoid adhesion.

- 6 You may use XYZmaker Suite to initiate manual updates to the printer firmware and software. When using the printer for the first time, we recommend connecting to the Internet and performing manual update once to obtain the latest resources.

- 7 The optimal room temperature for printing is 15-32 °C (60-90 °F). Printing quality may be affected if room temperature is higher or lower.

- 8 If you need more detailed technical support and program resources, visit the website: <https://www.xyzprinting.com/support/en-GB/Help>

- 9 Before operating the printer, insert the SD card in the SD card port to make sure that the printing program is able to run properly.

- 10 Please retain all original packaging material when shipping your product for warranty purposes. Shipping without original packaging materials may cause product damaged during the shipment and may cause chargeable service fees.



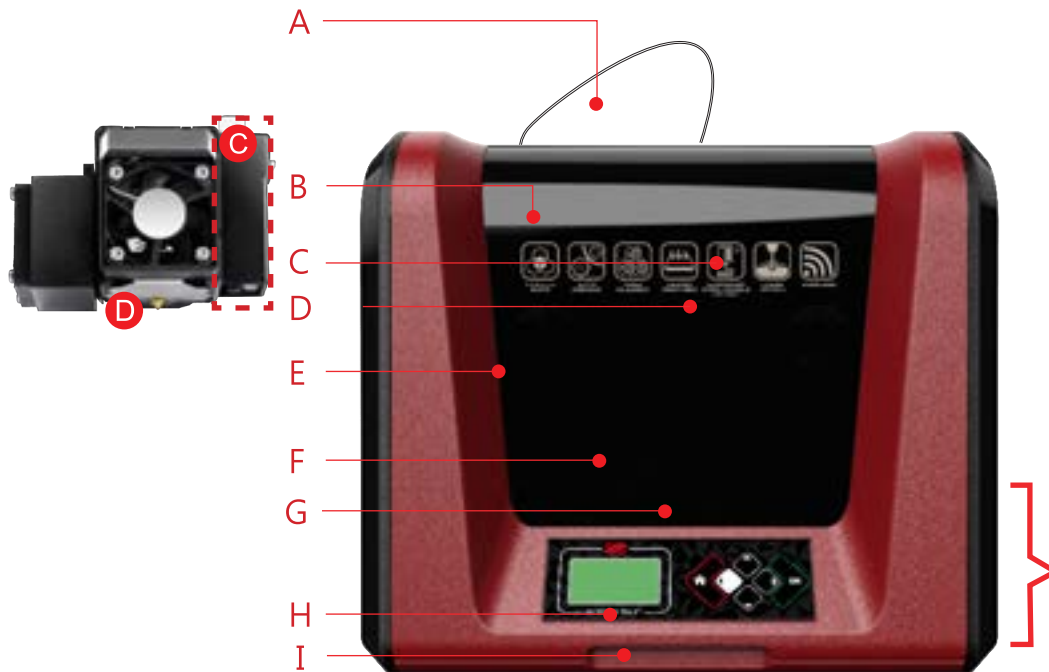
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**Please carefully read the contents of the product instruction manual before using this product.**

## Product Overview



A: Filament movement area

B: Feed module

C: Detector

D: Extruder

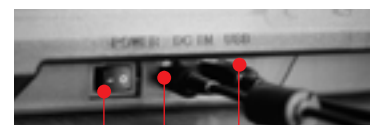
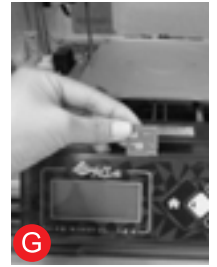
E: Filament

F: Print bed

**G: SD card port**  
(Storage format: FAT32)

H: Control and display panel

I: Front cover



USB Port

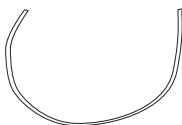
Power Connector

Power Switch

## Accessory Checklist



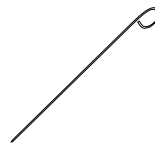
· Quick Guide and Warranty Card



· Guide Tube



· Power Cord



· Feeding Path Cleaning Pin



· USB Wire



· Tube Remover



· Leveling Tool



· PC Sheet x2 \*



· Scraper



· Cleaning Brush



· Power Adapter



· SD Card



· Nozzle Cleaning Wire x 5



· Bundled filament

\* XYZprinting has attached PC Sheet to the print bed before the machine is shipped from the factory.

## Important Safety Instruction for Use of Maintenance Tools



- The maintenance tools provided should be only handled by an adult. Please keep the tools away from children.
- Store the gear cleaning brush properly. This tool shall only be used to clean the specified parts of the machine and should not be used for the cleaning of other parts to prevent damaging the machine.
- The scraper is used to remove the object from the print bed when printing has finished. The bed tape is reusable and it can be replaced when it has worn out.

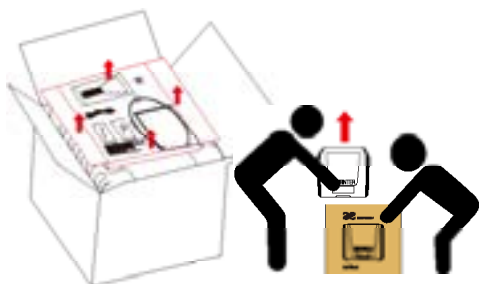


## Important Safety Instruction



- Do not place the printer in humid or dusty environment such as bathrooms and high traffic areas.
- Do not place the printer on a rickety surface and/or inclined position. Printer may fall down/or tumble and it may cause serious injury.
- Please keep the front door closed during printing to avoid injury.
- Do not touch the interior of the printer while printing. As it may be hot and include moving parts.

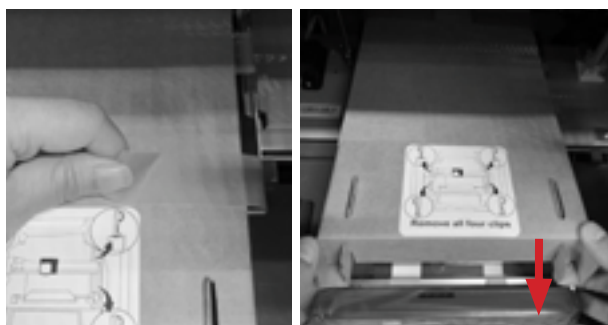
# Product Overview



- 1 Open the box and then remove the accessories and cushions.



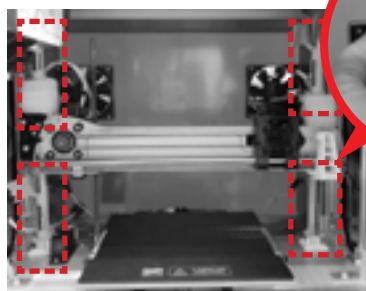
- 2 Remove the plastic bag and the tape.



- 3 Remove the tape and paper cardboard on the removal print bed.

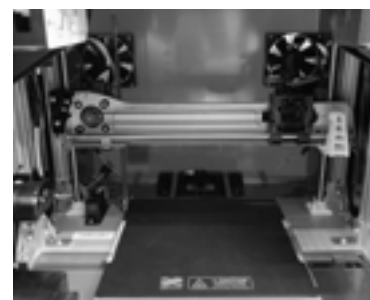


- 4 Remove the tape on removal print bed.



- 5 Remove the tape on printing module.

- 6 Remove the 4 clips and 2 forms from the shafts.



- 7 Please removal all fixed materials before turning on the printer to prevent the machine from damage.



- 8 Insert the SD card that came with the printer into your computer or download the latest XYZmaker Suite from the official Website and install it on the computer.



- 9 Use the USB cable to connect the printer to PC. Connect the power cord to the printer then turn on the power switch.



- Please use the original power adapter and power cord along with the printer in order to prevent product damage or safety hazards caused by differences in voltage specifications.
- This equipment must be earthed. The power plug must be connected to a properly wired earth ground socket outlet.



## Print Bed Installation



**Note:** Please refer to this step if the print bed installed or removed. Please be careful when you remove the print bed. Do not drop it down the ground.



**1** Please handle the print bed with care.

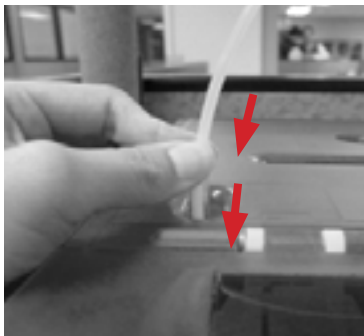


**2** Confirm that the print bed is in place for operation.

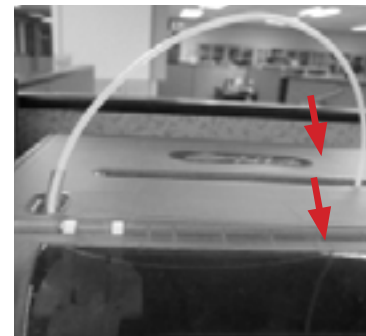


**3** Engage the two fitting pins while pressing the print bed on both sides.

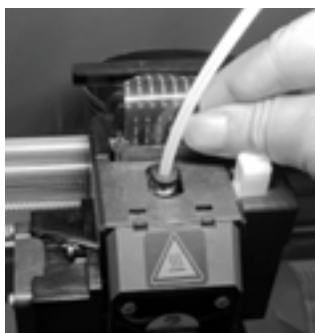
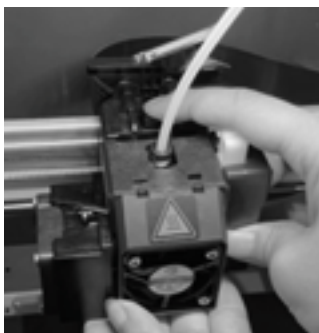
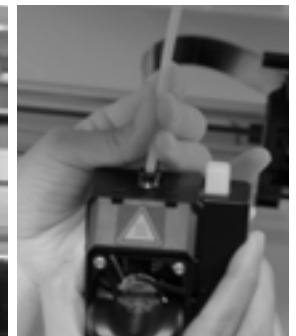
## Guide Tube and Extruder Module Installation



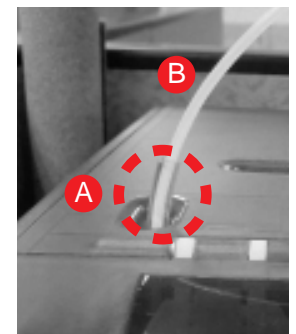
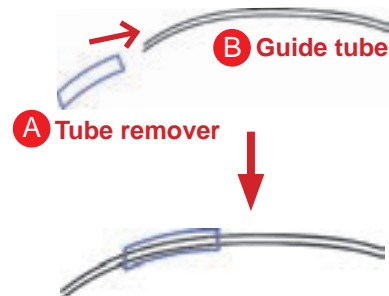
**1** Please push the tube remover into the extruder module port then ensure that the guide tube has been tightly inserted into the extruder module port.



**2** Put a guide tube through the guide tube movement area and then insert it into the extruder module. To finish the installation, insert the guide tube downward firmly.



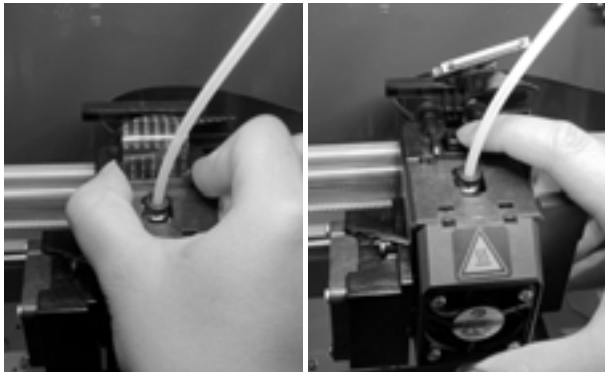
**3** Place the extruder module that the fitting pin is secured the proper location. Then, insert the black ribbon connector to complete the installation.



**Note:** Please insert the **guide tube (B)** into the **tube remover (A)** which assist to the guide tube installation and remove. Please keep the tube remover on the guide tube after guide installation.

# Accessories Installation

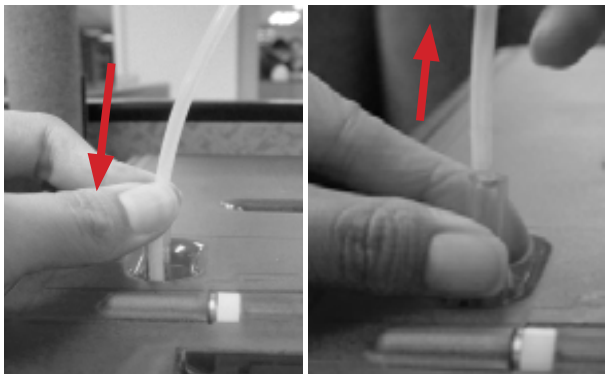
## Guide Tube and Extruder Module Removal



- 1 Please detach the black connector and press the black disengage button to remove extruder module.



- 2 Please press two sides of the Feed module to remove the filament guide tube.



- 3 Please gently push the tube remover into the extruder module port, then pull up the guide tube to remove from it.

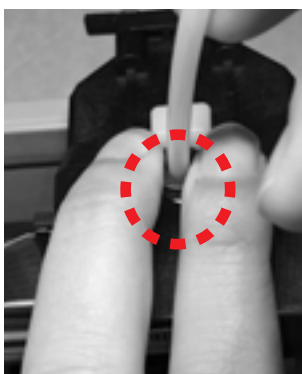


**WARNING:** Hazardous Moving Parts. Keep Fingers and Other Body Parts Away.



**Hot parts!** Burned fingers when handling the parts. **Do Not Touch.**

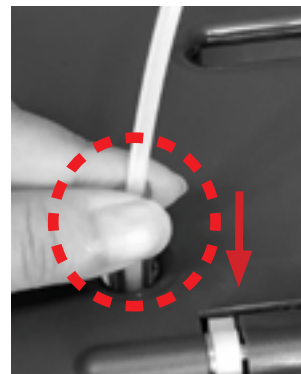
## How to Remove the Guide Tube



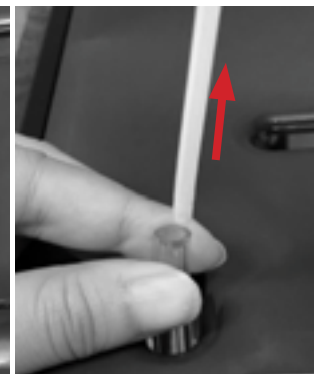
- 1 Use two fingers press the Feeder on the Feed module.



- 2 Pull out the guide tube.



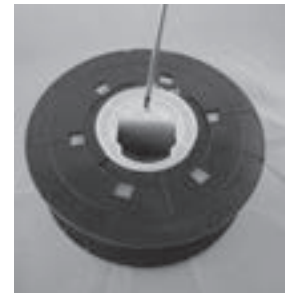
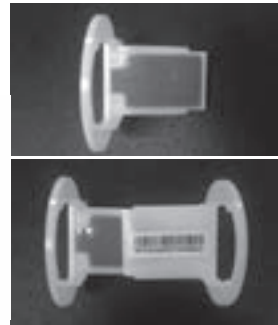
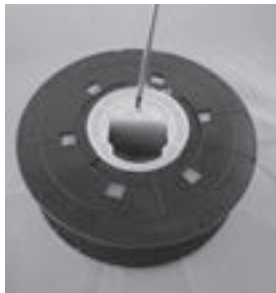
- 3 Please gently press the tube remover, pull the guide tube upwards to remove the guide tube.



# Accessories Installation

## Filament Spool Ring Installation

**Note:** Please refer to this step if the axle ring is not installed on the spool.

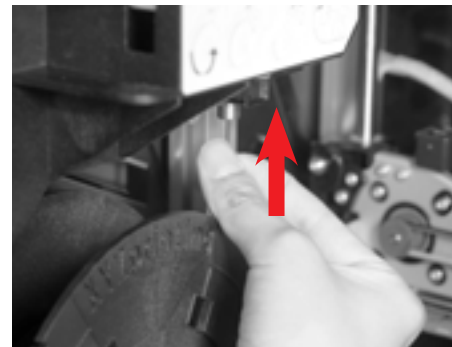


- 1 Loosen the spool ring mounting screw from the used filament spool with a screwdriver, and remove the spool ring.
- 2 Remove the genuine filament and chip, and then install the sensor chip. Please note the direction of the mounting hole on the chip to attach the chip correctly.
- 3 Insert the spool ring from both sides of the new filament spool. Tighten the spool ring with a screwdriver to finish the installation process.

## Filament Installation



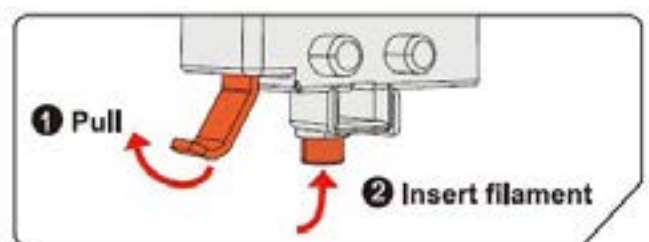
**Note:** If you are not too sure where the feed module tube port is, you may open the casing of the machine to see the indication label.



- 1 Place the assembled filament spool (with the spool axle rings) on the filament holder on the left side of the printer.
- 2 Click "LOAD", pull out a section of the filament and insert it into the feed port. Push the filament all the way to the top so that the front end of the filament is completely inserted into the feed module. (Please refer to the "LOAD" sections in the "UTILITIES" chapter)

**⚠ Caution:** Pay attention to the direction the filament is being pulled out and ensure that the filament spool axle is rotating smoothly.

**Note :** Before pushing the filament into the guide hole, please cut the tip of the filament off at a 45° .



# Accessories Installation

## Software Introduction

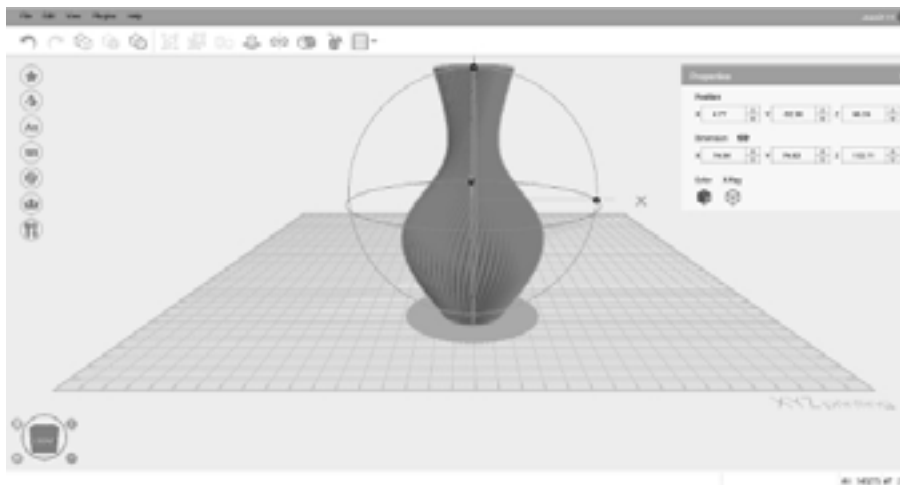


XYZmaker Suite is an all-in-one 3D design software application that provides a comprehensive range of 3D tools for XYZprinting's 3D printers.

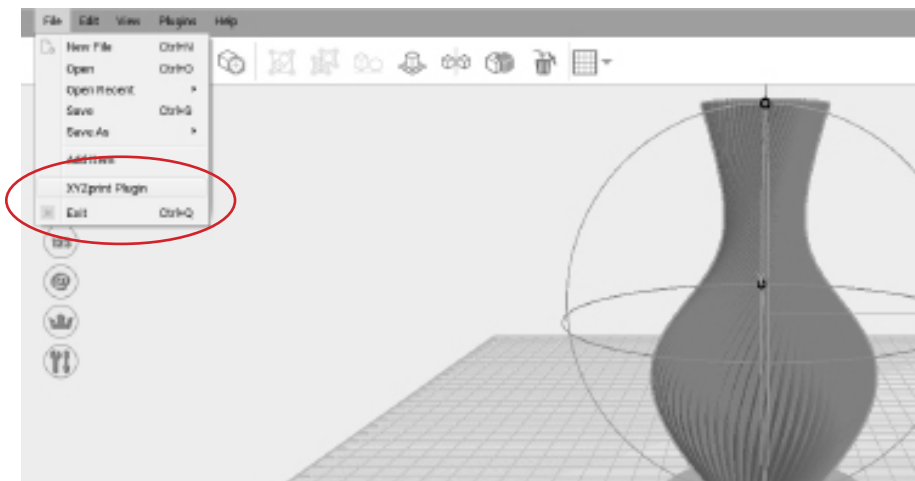


XYZmaker is a 3D modeling application that comes with an intuitive user interface and a wide range of interesting 3D modeling tools and 3D model templates. You can use XYZmaker to do the 3D modeling and print out with XYZprint.

1. Open the XYZmaker and build the model on the operating platform.



2. Click [File] > [XYZprint Plugin] to open the printing software XYZprint.



XYZengraver is an engraving software tool designed for our laser engraver module. Please refer to the "Software Functions" section in the "Optional Modules" chapter on Page 24.



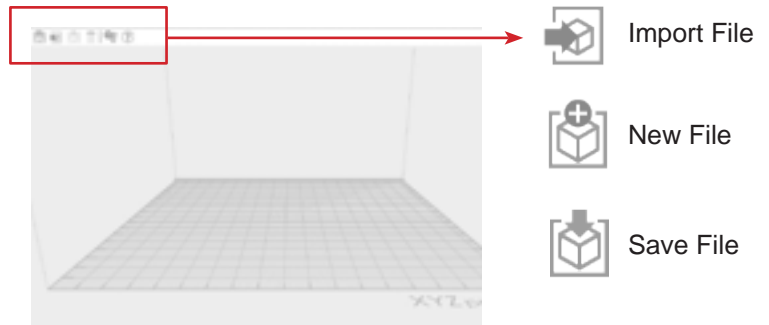


XYZprint is a 3D printing application with fast slicing capability. It lets you preview your 3D models in full color and monitor printing progress in real time.

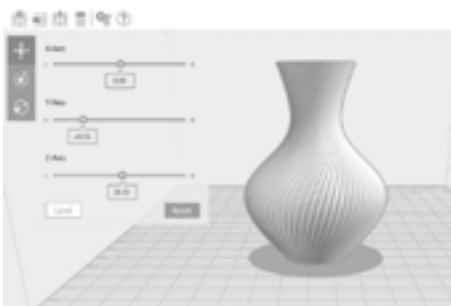
1. Open the XYZprint software and choose **DASHBOARD** and select the 3D printer that is connected.



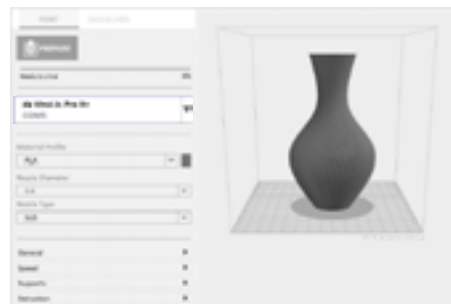
2. Import your favorite 3D files.



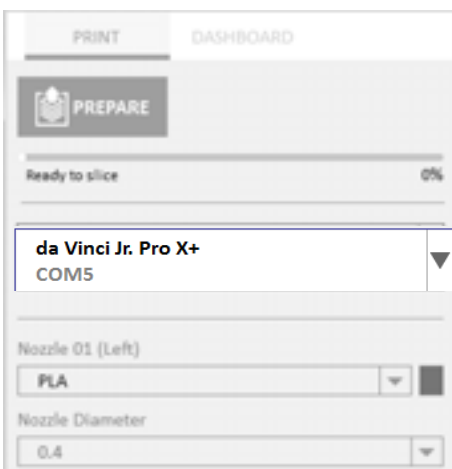
3. Click on the object to adjust the size you want.



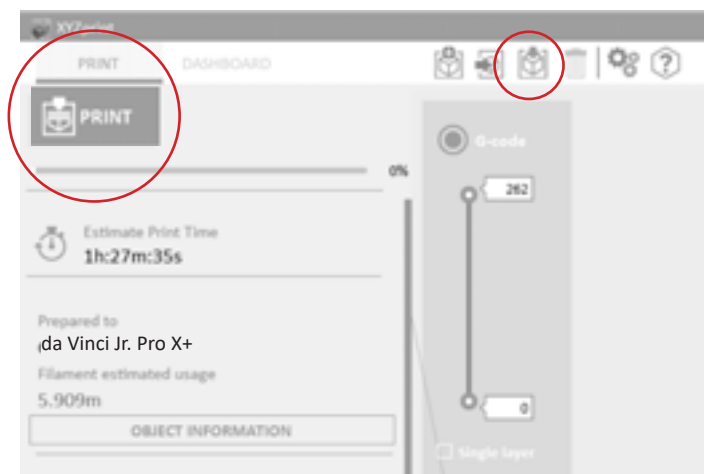
4. In the Print menu, adjust the print parameters.



5. When you're done adjusting the print parameters you need, click **[PREPARE]**.









6. After preparing, please check if the object is a complete model. After the confirmation, you can click **[PRINT]** or **[SAVE]**.



# Software Introduction

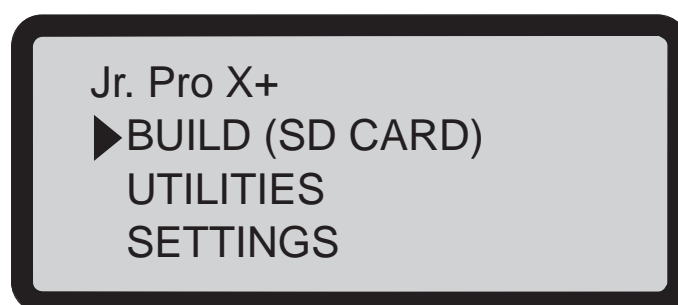
## Button Instructions

After switching on the printer's power, the user may use the display panel at the front of the printer to understand its status and usage data. The functional buttons on the right allow the user to perform the relevant operations.

Button		Functions
Up		Direction Up
Down		Direction Down
Left		Back to previous menu / Reduce the adjustment value
Right		Forward to submenu / Increase the adjustment value
OK		OK; confirm selection/settings
HOME		Home Button, return to main menu



Function	Description
<b>BUILD (SD CARD)</b>	Sample print from SD card
<b>UTILITIES</b>	Features such as filament replacement, module replacement and print bed calibration
<b>SETTINGS</b>	Settings such as language display and energy saving
<b>INFO</b>	The firmware and printer statistical information
<b>MONITOR MODE</b>	Monitor of extruder and print bed working temperature and printing progress



# Functions

Home Menu	Top Menu	Sub Menu	Page
<b>BUILD (SD CARD)</b>			P12
<b>UTILITIES</b>	<b>CHANGE SPOOL</b>	<b>LOAD</b>	P12
		<b>UNLOAD</b>	P12
	<b>HOME AXES</b>		P13
	<b>Z OFFSET</b>		P13
	<b>JOG MODE</b>		P13
	<b>CALIBRATION</b>		P14
	<b>CHANGE NOZZLE</b>		P15
	<b>CLEAN NOZZLE</b>		P15
<b>SETTINGS</b>	<b>AUTO HEAT</b>		P16
	<b>BUZZER</b>		P16
	<b>LANGUAGE</b>		P16
	<b>ENERGY SAVE</b>		P16
	<b>AUTO LEVEL</b>		P16
	<b>DOOR SAFETY</b>		P17
	<b>JAM DETECT</b>		P17
	<b>RESET WLAN MODE</b>		P17
	<b>RESTORE DEFAULT</b>		P17
<b>INFO</b>	<b>STATISTICS</b>		P18
	<b>SYSTEM VERSION</b>		P18
	<b>SPOOL INFO</b>		P18
	<b>LEVELING INFO</b>		P18
	<b>NOZZLE INFO</b>		P18
	<b>WIRELESS INFO</b>		P19
	<b>MORE INFO</b>		P19
<b>MONITOR MODE</b>			P19

The map above shows the functions your may access with the control panel on the printer.  
 For detailed descriptions of each function, please refer to their respective pages in this user manual.

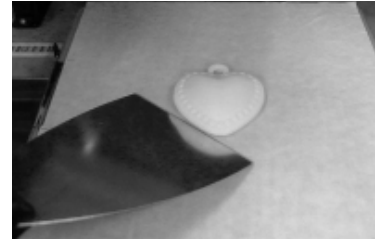
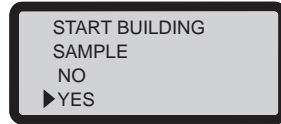
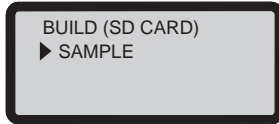
# Maps of Functions

## BUILD (SD CARD)

**Note:** Confirm that the print bed is in place for operation and ensure the front door is closed. (Please refer to the "DOOR SAFETY" section in the "UTILITIES" chapter.)

1 sample models are built into the printer. You may begin your first 3D prints with the samples.

To print a sample :



**1** Select a sample to print.

**2** Select "YES" to start printing.

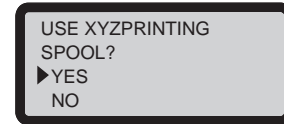
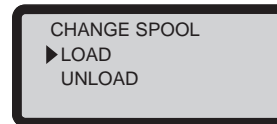
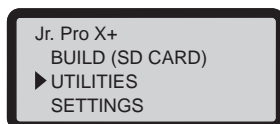
**3** Remove the printed object when the printing has finished and the print bed has descended. The bed tape is reusable and it can be replaced when it's worn.

**\*After printing the object, it is recommended that use the alcohol to clean the print bed to avoid adhesion.**

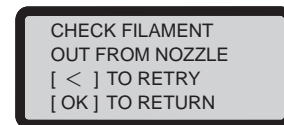
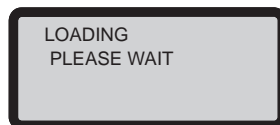
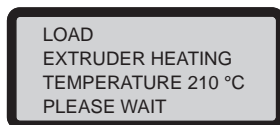
## LOAD

**\*Please refer to P.27 for third party filaments.**

**Enable the LOAD FILAMENT function on the control panel...**



**1** Select "UTILITIES" > "CHANGE SPOOL" > "LOAD" > "USE XYZPRINTING SPOOL?" > "YES".

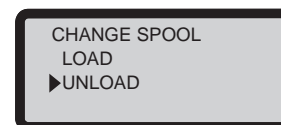
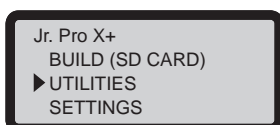


**2** Insert the filament right into the feed hole. The printer will load the filament automatically. After loading, select "OK" to continue. The printer will warm up to the operating temperature and load the filament.

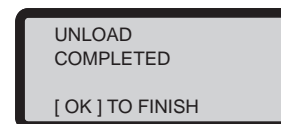
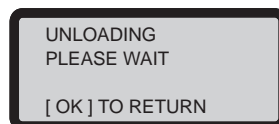
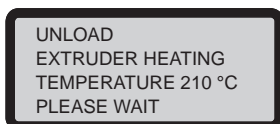
**3** Confirm that the filament is flowing out from the extruder; If the filament flows out, press "OK" to exit.

## UNLOAD

**Enable the UNLOAD function on the control panel...**



**1** Select "UTILITIES" > "CHANGE SPOOL" > "UNLOAD".



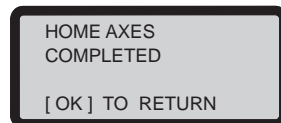
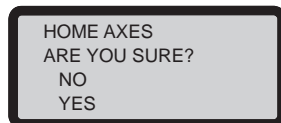
**2** Wait for the extruder to heat up and unload filament. Press "OK" and pull out the filament.

**⚠ Note:** Always implement the "UNLOAD" function when replacing the Spool in order to ensure proper removal of the filament. Cutting filament too closely to the Extruder Module may result in residual filament blocking and causing damage to your Extruder Module.

# UTILITIES

## HOME AXES



"HOME AXES" moves the extruder to the lower left corner.  
To home axes :

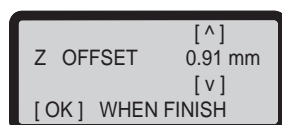


Select "YES" to proceed.

## Z OFFSET

The user may use the Z OFFSET function to adjust the gap between the printing nozzle and the printing bed.

When adjusting the gap, use  and  keys to increase or decrease it (the minimum adjustment scale is 0.05mm).



After adjusting, press "OK" to exit.

Note:

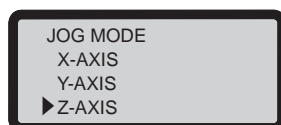
- 1 The product has been tested and adjusted with precision at factory. We suggest that you write down the default Z OFFSET value before performing adjustment.
- 2 The recommended distance between the nozzle and print bed(with PC Sheet securely fastened) is 0.3mm. This should allow two sheets of copy paper to be drawn out smoothly but six sheets of copy paper cannot be passed.



## JOG MODE





"JOG MODE" is used to manually move the extruder and the print bed.  
Before you carry out this function, move the extruder module back to its original position (HOME AXIS).

How to move the extruder:



- 1 Select the direction of the module or the print bed to be moved.  
Note: "X-AXIS": left and right movement of the extruder module, "Y-AXIS": front and back movement of the print bed, "Z-AXIS": up and down movement of the extruder module.



- 2 Select desired increment of travel with  and  buttons, and press  or  button for desired direction to move the extruder.



## CALIBRATION

**Note: Please remove print bed tape before you activate the calibration function on your printer.**

- 1 Calibration is enabled for this new extruder module.  
Please update printer firmware via XYZmaker Suite before using the new extruder.

- 2 Results displayed after the print bed calibration:

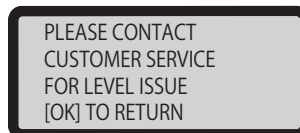
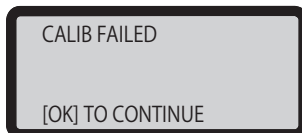
A. If the printer shows "CALIB COMPLETED", and "AUTO-LEVELING IS DISABLED NOW" is displayed on the 3rd line, it indicates that the levelness of the print bed is good. Press "OK" to exit and print.

B. If "AUTOLEVELING IS ENABLED NOW" is displayed under "CALIB COMPLETED", it indicates that the print bed is tilted slightly. The printer has enabled the auto-leveling function.

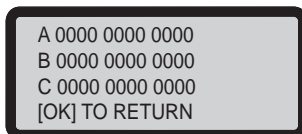
**Note: The auto-leveling function can improve the printing quality, but the printing time will be longer. You can disable this function in Settings depends on your needs.**



Note: If the detection result is "FAIL", press "OK" continuously to exit. Select "INFO" > "LEVELING INFO" to check the print bed levelness data, and contact our customer service to inform the measurement data.

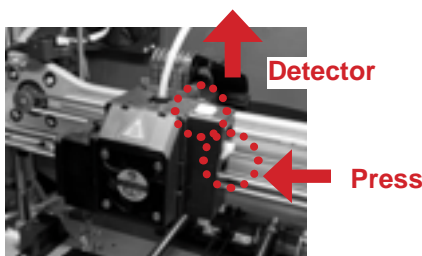


- NOTE : 1. The stains on detection head and the top of the extruder module will affect the detection result. Before the calibration, please remove the dirt. Please remember to install and position the extruder module.
2. If there is residue on the top of the extruder module, the detection result will be shown as below.  
Please be sure to remove the dirt and recalibrate.



## CALIBRATE COMPLETED

After detecting the print bed, the detector by the extruder module may be switched off automatically. Ensure the detector is switched off before printing.



## CHANGE NOZZLE

Carry out the CHANGE NOZZLE function before changing modules. Once the extruder module has moved to the operating position, you can **turn off the power** and change the module.

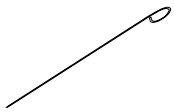
CHANGE NOZZLE  
MODULE NOW ?  
NO  
▶ YES

REPOSITION NOW  
  
PLEASE WAIT

YOU CAN TURN OFF  
POWER & CHANGE  
NOZZLE NOW

## CLEAN NOZZLE

### ● Tools Preparation



A. Feeding Path Cleaning Pin



B. Cleaner Wire

Carbon deposits and dirt accumulated in the nozzle will increase with the printing times and impact the printing quality. We suggest that you clean the nozzle after every 25 hours of printing.

### ● Guide to Clean Nozzle

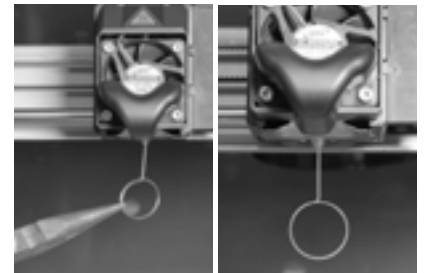
- 1 Select "UTILITIES" > "CLEAN NOZZLE" > "YES".

START CLEANING  
NOZZLE NOW?  
NO  
▶ YES

- 2 Wait for the printer to warm up to the operating temperature. You can start cleaning when "READY FOR CLEAN " is displayed.

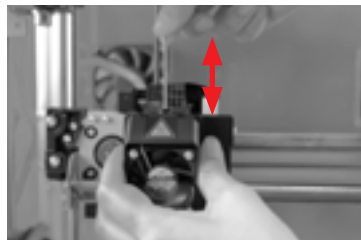
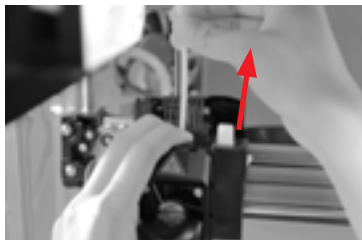
READY FOR CLEAN  
  
[ OK ] WHEN FINISH

- 3 Insert the cleaner wire into the hole of the nozzle carefully with a nipper. After inserting the wire, press "OK" to exit.



**Note: If the materials still cannot extrude normally after performing the CLEAN NOZZLE function, please follow the steps below to clean the feeding path again.**

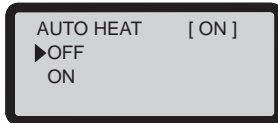
- 1 "CLEAN NOZZLE" function again and wait until the extruder is heat up to working temperature. (Care should be taken during the operation to avoid potential burn injuries.)
- 2 Press the spring around the feeding path and pull out the guide tube. (Do not detach the flat cable above the nozzle.)
- 3 Insert the feeding path cleaning pin into the feeding path as far as it can go, and stick it back and forth to remove the carbon deposits and dirt completely.
- 4 After cleaning, insert the guide tube onto the nozzle.



- 5 Please place the extruder to original position (HOME AXIS) and calibrate the print bed (CALIBRATION). Then, do print bed leveling after completing clean nozzle. (Please refer to the "Print Bed Leveling" section).

## AUTO HEAT

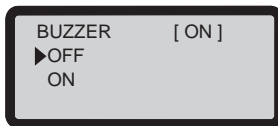
Automatic Heating, You can choose whether to automatically heat the platform to the specified temperature when you turn on the 3D printer.



Select "OFF" and press "OK" to change the settings.

## BUZZER

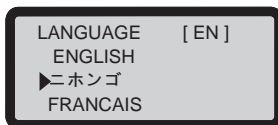
When the buzzer is turned on, the printer will output an audible signal when a button is pressed, print job is finished, or issue is detected. Buzzer is turned on by default. To switch off the buzzer:



Select "OFF" and press "OK" to change the setting.

## LANGUAGE

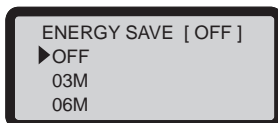
You may switch the display language on the printer between English and Japanese. The default language is English. To switch to Japanese:



Select "ニホンゴ" and press "OK" to change the setting.

## ENERGY SAVE

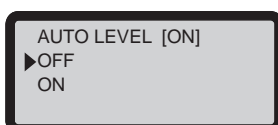
LED luminaires are installed in the printing chamber. To save energy consumed, the lighting will go off after idling for 3 minutes (shown as 03M on the display) by default. To select a longer time interval:



Select "06M" (for auto off after 6 minutes) or "OFF" (for never turn off the LED) and press "OK" to change the setting.

## AUTO LEVEL

The printer will adjust the configuration based on the detecting result automatically while "AUTO LEVEL" is enabled. The printing mode helps to improve printing quality with slower printing speed. You may switch off the function if necessary. To change the setting of auto-level:

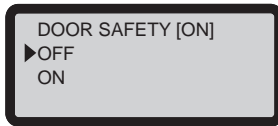


Simply select "OFF" and press "OK" to change the setting.

# SETTINGS

## DOOR SAFETY

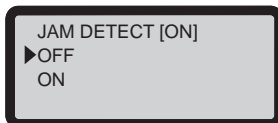
When the security door function is turned on, open the front door of the printer and the printing will stop. The function of safety door turned on as default, or you can turn off this function.



Select "OFF" and press "OK" to reset.

## JAM DETECT

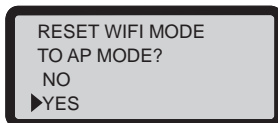
JAM DETECT function assists to remind the nozzle blocking of the material and you can operate the cleaning nozzle step. The jam detection turned on as default, or you can turn off this function:



Select "OFF" and press "OK" to reset.

## RESET WLAN MODE

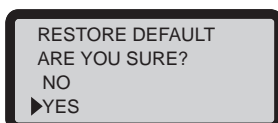
Resets the wireless network back to AP mode.



Select "YES" and press "OK" to reset the wireless network back to AP mode.

## RESTORE DEFAULT

All settings can be reset to factory default with a few clicks.  
To reset all settings at once:



Simply select "YES" and press "OK" to reset.

## STATISTICS

In "STATISTICS", you can check the accumulated print time and last print time.

```

STATISTICS
LIFETIME      00007h
LAST TIME     07h45m
[ OK ] TO RETURN
    
```

## SYSTEM VERSION

Firmware version is shown here. For stable printing performance, it is advised to keep the firmware up to date. To check for firmware updates, please go to XYZmaker Suite.

```

SYSTEM VERSION
0.1.3
[ OK ] TO RETURN
    
```

## SPOOL INFO

"SPOOL INFO" provides the information on cartridge level (see REMAINING), and the capacity, color and material of the filament. Press to "OK" to the second page.

```

SPOOL INFO
REMAINING     000m
CAPACITY      100m
[ DOWN ] NEXT PAGE
    
```

```

COLOR
BLUE
[ DOWN ] NEXT PAGE
    
```

```

MATERIAL
PLA
[ OK ] TO RETURN
    
```

## LEVELING INFO

"LEVELING INFO" function shows print bed leveling data and press "OK" to change the setting.

If the detection result is "FAIL" when you use CALIBRATE function and contact our customer service to inform the measurement data.

```

A 0246 0256 0260
B 0232 0243 0250
C 0219 0227 0235
[ OK ] TO RETURN
    
```

## NOZZLE INFO

"NOZZLE INFO" shows nozzle information and lifetime. If you want to change setting, please press "OK".

```

TYPE : EXTRUDER
DIAMETER : 0.4mm
LIFETIME  00007h
[ OK ] TO RETURN
    
```



## WLAN INFO

The "WLAN INFO" function displays the WIFI information of the printer; click "OK" if you want to exit.

IP ADDRESS  
XXX.XXX.X.XXX  
[DOWN] > NEXT PAGE

## MORE INFO

The URL to XYZprinting website can be found here. You may go to the website for the latest information, product documents, tutorial video and more.

MORE INFO  
www.xyzprinting  
.com  
[OK] TO RETURN

## MONITOR MODE

"MONITOR MODE" shows the temperature of the extruder. See below for the working temperature for the parts in different modes.

MONITOR MODE  
EXTRUDER 024 °C  
[OK] TO RETURN

The flatness of the print bed will affect the 3D print quality. There are highly recommended you do print bed calibration regularly (CALIBRATE), then the implementation of "Print Bed Leveling" to get a more flatness print bed.

## Preparation of Tools



A. Leveling tool

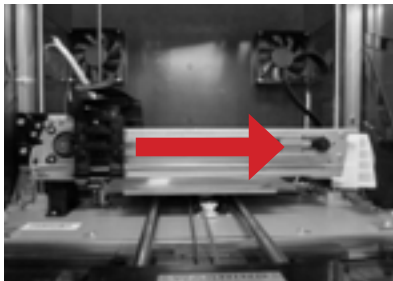


B. Screwdriver (T10) for print bed leveling procedure

## Standard Print Bed Leveling

HOME AXES  
ARE YOU SURE?  
NO  
▶YES

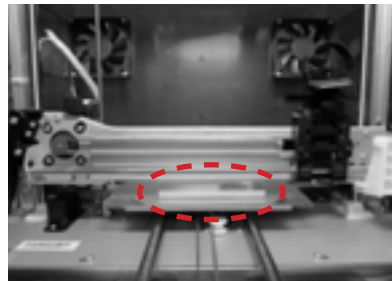
- 1 Move the Z axis back to the origin with the HOME AXES function.



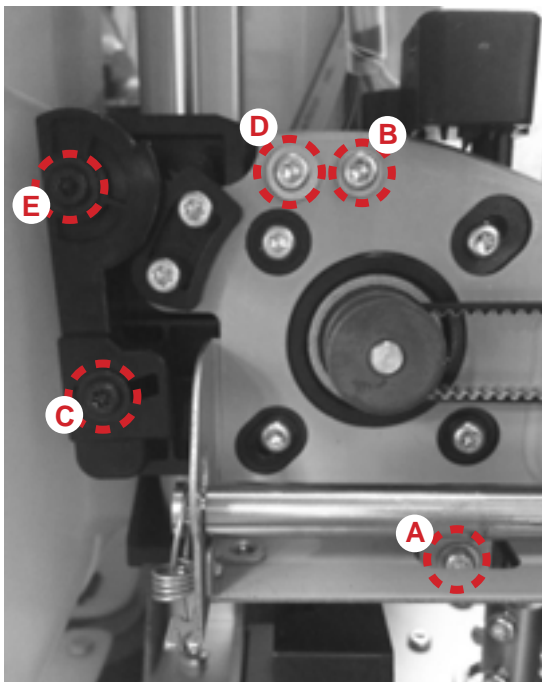
JOG MODE  
X-AXIS  
Y-AXIS  
▶Z-AXIS

Z-AXIS [ OK ] >> EXIT  
[ 0.1mm ]  
001mm  
[ - ] ◀ 010mm ▶ [ + ]

- 2 Use Jog Mode and move the Z-AXIS upwards by 10 mm.



- 3 Manually move the printing module to the right side to prevent affecting its calibrated position. At the same time, place the leveling tool onto the bed right under the Z axis.

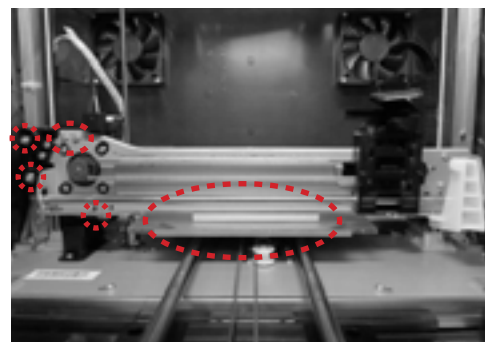


- 4 Loosen the 5 marked screws in order as shown in the figure. Do not loosen the screws other than the marked ones. (Do not remove the screws. Just loosen the screws slowly. )

JOG MODE  
X-AXIS  
Y-AXIS  
▶Z-AXIS

Z-AXIS [ OK ] >> EXIT  
[ - ] ◀ [ 0.1mm ] ▶ [ + ]  
001mm  
010mm

- 5 Move the Z axis downward (in 1mm interval) with the JOG MODE function until the X-axis bracket aligns with the leveling tool.



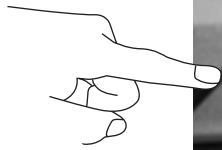
- 6 Visually check if the leveling tool is aligned with the X-axis bracket, and then tighten the 5 loosened screws again.

- 7 Ensure screw was tightened and calibrate print bed again. Select "UTILITIES" > "CALIBRATE" > "YES", bed leveling was finished.

# Print Bed Leveling



**Note:** The machine can be turned off only when the cooling fan of the print head stops running after the print is completed. Turning off the power directly may clog the print head.



References:  
Please refer to CLEAN NOZZLE to remove the blocks out of the print head.

This section describes how to clean the feed module. After heavy use of printer, if feeding of material becomes difficult or impossible, please follow these steps.

## Preparation of Tools

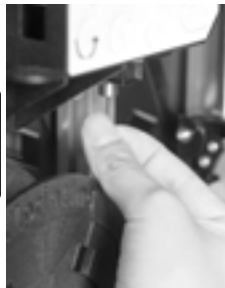
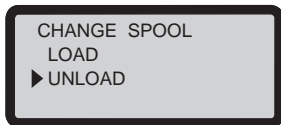


A. Cleaning brush that comes with the printer

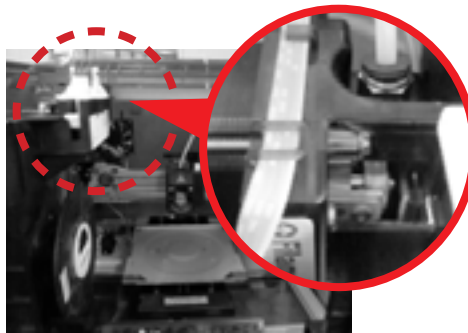


B. Screwdriver (T10) for standard cleaning procedure

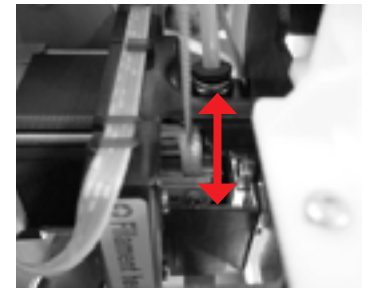
## A. Quick Cleaning



**1** Use the "UNLOAD" function to loosen and remove the filament.



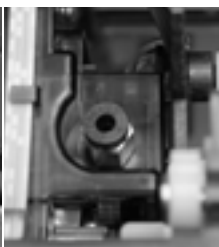
**2** Open the front cover to clean the feeding module on the left side of the printer.



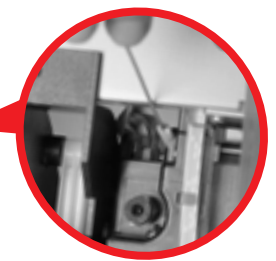
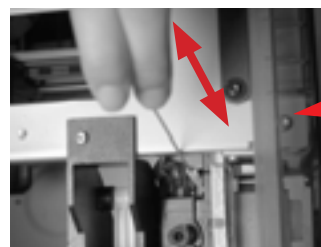
**3** Use the cleaning brush to scrub the gear. After removing the filament residues on the gear, you can insert the filament back and enjoy printing.

## B. Standard Cleaning

**1** Please remove filament, extruder model and guide tube. (Please refer to "Guide Tube and Extruder Module Removal" section of the "Accessories Installation" chapter and the "UNLOAD" section of the "UTILITIES" chapter.)



**2** Use the screwdriver to remove the screw (red circle) and open the top cover to see this part clearly.



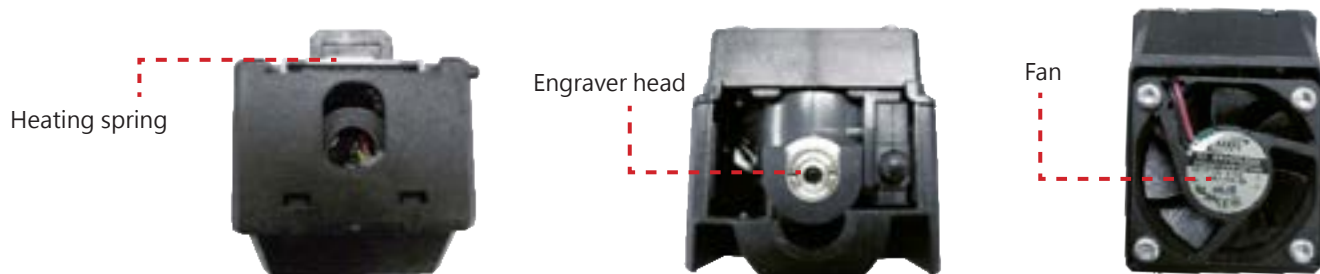
**3** Use the cleaning brush to scrub the gear; after removing residues of filament on the gear, you can insert the guide tube and put the cover back and then enjoy printing again.

# Clean Instruction

## Laser Engraving Module

Laser engraver module must be purchased separately. Please read through this manual and all safety reminders carefully before using, operating, dismantling, replacing, or removing this product. Please also comply with relevant safety reminders and instructions.

### • Product Overview



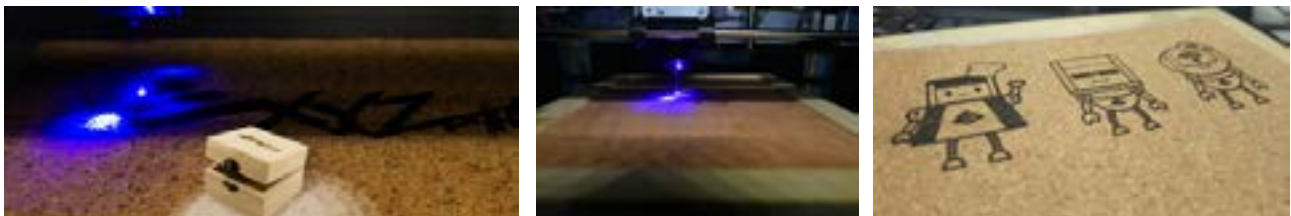
### • Recommended laser engraving material:

- ◆ Paper
- ◆ Cardboard
- ◆ Leather
- ◆ Wood
- ◆ Plastic

**Note:** Avoid using materials that are light colored, white, or have glossy surfaces for laser engraving. Achieve the best engraving results with gray colored or dark colored materials.

Plastic materials (such as PP / ABS / PE) may be engraved. However, please avoid using materials that are transparent, white, or lightly colored.

The engraving module is only capable of engraving planar objects. The target should thus be placed flatly on the panel. Avoid engraving warped or curved objects that are not completely flat.



### • Replace and Installing the laser engraving module:

Before replacing the extruder module with the laser engraving module, check if there are remaining filaments in the nozzle and remove them accordingly. After removing the filament, please select [CHANGE NOZZLE].

- ◆ Wait for the panel to display the message that allows you to switch off the power to replace the printing module.

#### To release the extruder:

1. Press the white button at the back of the extruder to release it.
2. Lightly press the spring around the feed hole and remove the filament guide tube. Press on the harness chips and disconnect the cable.

#### Installing the laser engraving module:

1. Connect the flat cable to the laser engraving module. (Remind the flat cable direction.)
2. Align the laser engraving module with the bracket and press it to fix the holder.

#### Dismantling the laser engraving module:

1. Press the white button at the back of the laser engraving module to release it.
2. Detach the connected cables.
3. Complete dismantling and provide proper safekeeping of the laser engraving module.

## CHANGE NOZZLE

- 1 Please operate the "UNLOAD" function and remove filament spool in the printer.
- 2 Please select "CHANGE NOZZLE" and smart extruder will reposition to working position.  
Then, screen on the printer will show "TURN OFF POWER AND THEN CHANGE NOZZLE MODULE" and you can turn off power.

UTILITIES  
CALIBRATE  
BUILD SAMPLE  
▶ CHANGE NOZZLE

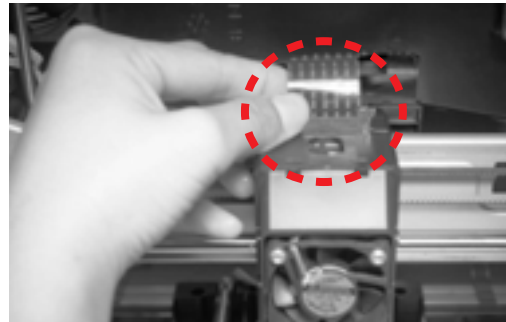
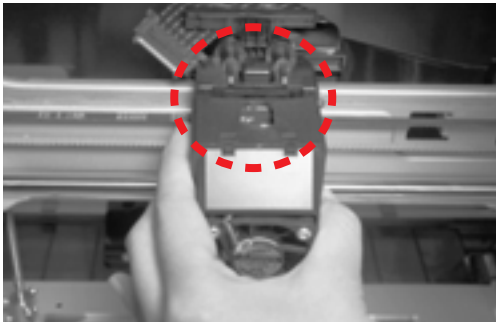
TURN OFF POWER  
AND THEN CHANGE  
NOZZLE MODULE

- 3 Please remove extruder model and guide tube.  
(Please refer to "Guide Tube and Extruder Module Removal" section in the "Accessories Installation" chapter.)



## Install Laser Engraving Module

- 1 Please install laser engraving module in bracket and press module to holder.
- 2 Install spring on the top of laser engraving module.



**NOTE :** To disassemble the extruder module, gently press the sides of the flat cable, remove the white flat cable, and then press the white quick release button.

## Software Functions

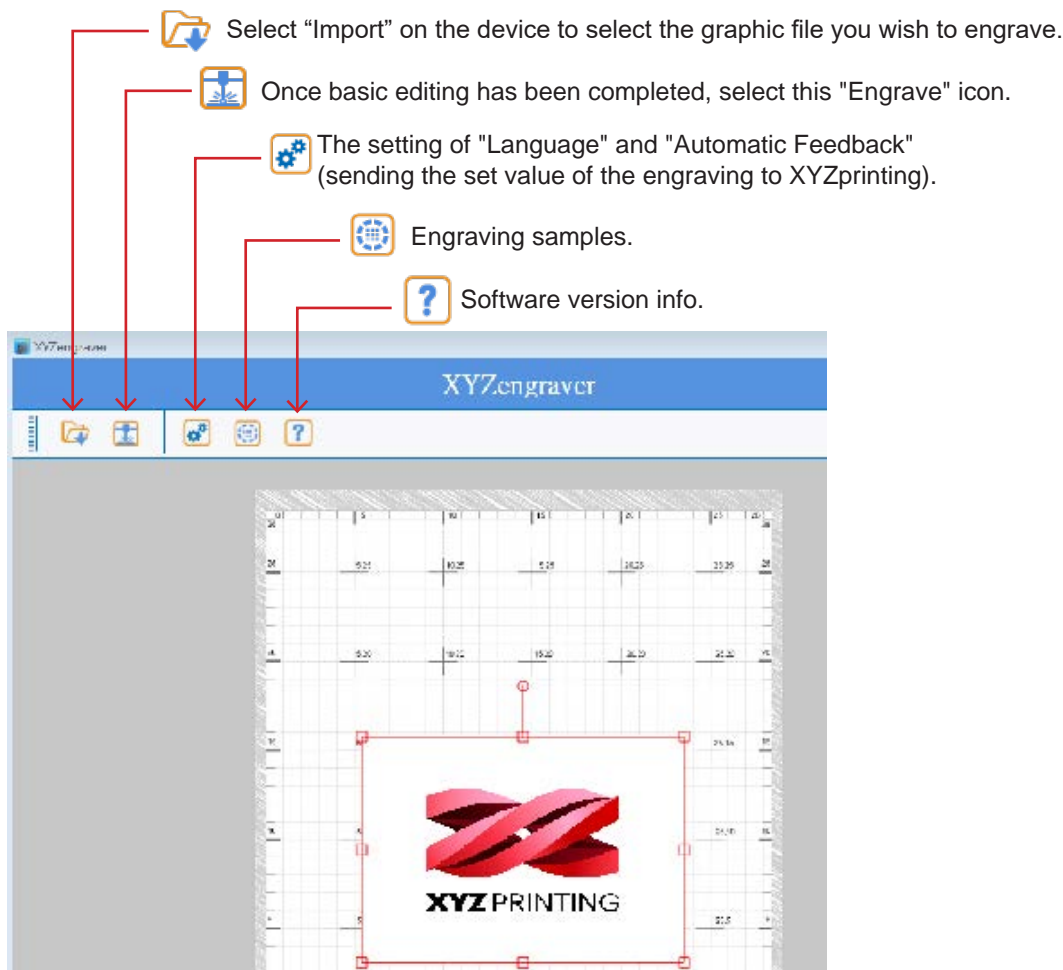
Please select "XYZengraver" software and select the laser engraving function in the toolbar. At the same time, import the file you want to edit, edit and set the laser engraving effect then operate the laser engraving.

**For more detailed laser engraving instructions, please refer to the laser engraving manual.**

**(Official website: [www.xyzprinting.com](http://www.xyzprinting.com))**



## • Function Description:



## • Select "Edit". The software screen shall display the laser engraver settings.

The user may choose between Vector / Pixel engraving modes (default software setting is Vector mode). Set engraving speed, number of engraving layers, contour detection sensitivity, or color depth detection sensitivity.

## • Pause and cancel the laser sculpting

**PAUSE:** Select "PAUSE" to pause the laser engraving process.

**RESUME:** To cancel the pause and resume the printing, select "RESUME". A screen will appear to confirm whether to resume the engraving process. Select "YES" to continue the laser engraving process.

**CANCEL:** To cancel the laser engraving job, select "CANCEL". A screen will appear to confirm whether to cancel the engraving process. Select "YES" to cancel the laser engraving process.

## • Laser Specification

Laser Wavelength	406nm+8nm/-6nm InGaN	Laser Power	300mW $\pm$ 10%
Laser Power for Classification	Class 3B	Beam Diameter	$\leq$ 1mm
Engraving area	17 x 16 cm / 6.7" x 6.3"	File Types	JPG / PNG / GIF / BMP
Mode of Operation	CW (Continuous Wave)		

**For more details on laser engraving settings and methods, please refer to the "Laser Engraving Module User Manual".**

## Wireless printing

This chapter introduces how to carry out the setting correctly and to operate the wireless printing function. To understand if your product is designed with wireless printing function, please refer to the table below.

●da Vinci 1.1 Plus ●da Vinci Jr 1.0w ●da Vinci Jr. WiFi Pro ●da Vinci Jr. Pro X+

### Before setting up

The network printing function is only available when the printer and the computer are both connected to the same wireless network.

Before connecting the printer, your wireless network settings need to be adjusted. For more information, refer to the instruction manual of your wireless router.

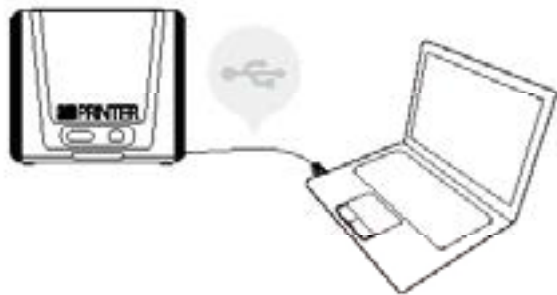
The wireless network's channel width needs to be set to 20 MHz for the printer to connect to it wirelessly. Refer to the vendor instruction manual for more information.

The printer supports WEP, WPA, and WPA2 security encryption standards. Wireless pass word information will be requested when setting up the printer connection.

## Setting up WiFi

### 3D Printer WiFi Setting

Connect the printer to your computer with the USB cable, open "XYZprint" and turn on the printer.

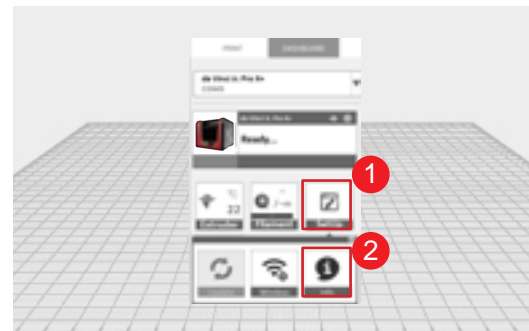


Click the **[XYZprint]** to open printer operating dashboard.

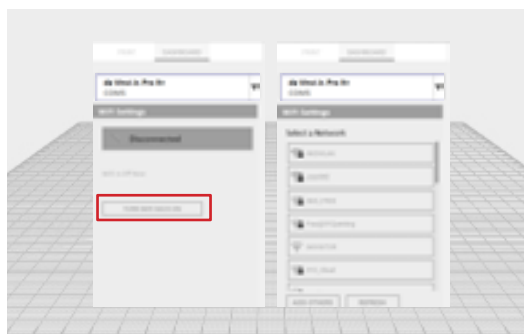


Select the connected 3D Printer on Dashboard page.

Select the **[SetUp] > [Wireless]** to open the WiFi connection settings.



In the **[WiFi setting]** window, please follow the onscreen instruction to key in the related information to complete wireless connecting setup.



# Wireless Setting



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



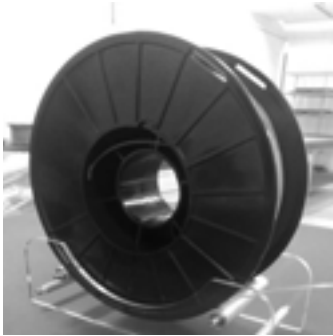
If you need to stop or change the wireless setting, please click [**Connect to new network / Disconnect**].

**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.

## Open Filament

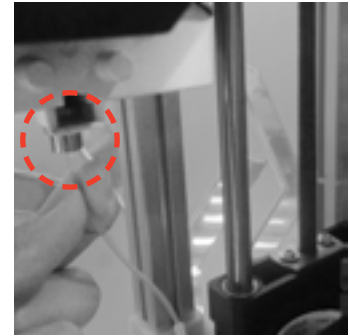
- 1 If you're using third party filaments, please secure the filament using the holder.



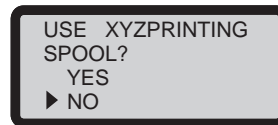
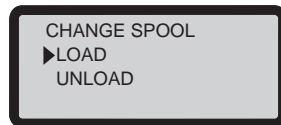
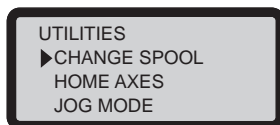
- 2 Load the filament from the back of the printer.



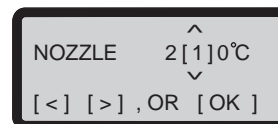
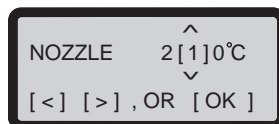
- 3 In the printer, insert the filament into the feed port. Open the release arm so that the front tip of the filament can be properly inserted into the feed module.



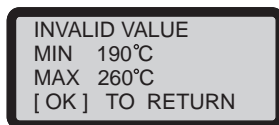
- 4 Load the filament function of the printer function. When the panel displays: "USE XYZPRINTING SPOOL?", select "NO" > "APPLY SETTING" (and enter temperature settings).



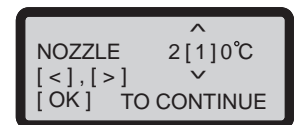
- 5 Adjust the nozzle temperature according to the supplier's recommendations. Use the left [ < ] and right [ > ] buttons to select the digits. Use the up [ ^ ] and down [ v ] buttons to increase or lower the number.



- 7 The recommended printing temperature range is 190 to 260°C. The screen would display a temperature range reminder if the temperature settings exceed this recommended range.



- 8 The user may go to SETTING > USER FILAMENT > NOZZLE to set the nozzle temperature.



## REMARK

- \* Hang the spool on the filament spool holder prepared by yourself, we recommend use the support bracket to avoid collapsing when printing.
- \* Print quality cannot be guaranteed if filaments from other brands are used instead.
- \* The warranty does not cover stuck filaments, product failure, damage or defects resulting from the use of other brand's filament or 3rd party slicing software.

# OPEN FILAMENT

## OPEN MODE

XYZprinting's Pro series 3D printers support different filament chips. If you have multiple 3D printers at the same time, but only have one type of filament chip in your hand, you can refer to the instruction of the Open Filament section in User Manual and load the filament directly.

Before printing, you can select the filament material in the XYZprinting slicing software, in this way, you can apply the default setting of the material and start printing.

### For da Vinci Jr. Pro series / da Vinci Super ( Remove EEPROM Chip )

Open the filament box and pick out the filament spool.

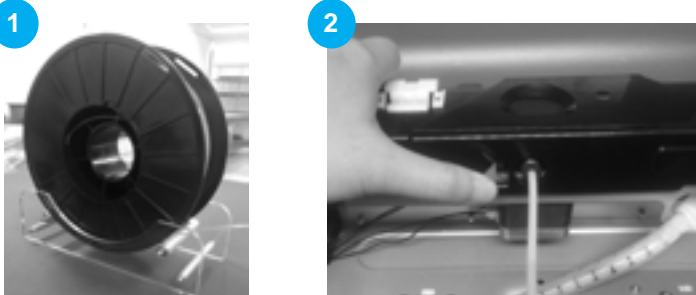


Instructions :

- Please refer to the Open Filament section in the User manual.

### For da Vinci 1.0 Pro/da Vinci 1.0 Pro 3-in-1

- ① Please secure the filament by using the holder first.
- ② Insert the filament into the feed port. Open the release arm so that the front tip of the filament can be properly inserted into the feed module.



Instructions :

- Please refer to the Open Filament section in the User manual.



## da Vinci Jr. Pro X+ 3D Printer

Model Name	da Vinci Jr. 1.0 Pro X+
Dimensions	16.54 x 16.93 x 14.96 inches ( 420 x 430 x 380 mm )
Weight	26.46 lbs (12kg)
Display	3.4" FSTN LCM
Language	Multi language
Connection method	USB Wire / SD Card / Wi-Fi 802.11 b/g/n
Print Technology	FFF (Fused Filament Fabrication)
Build Volume	175 x175 x175 mm
Print resolution (Layer Height)	20 - 400 microns
Print module	Single Nozzle
Nozzle diameter	0.4mm / 0.4mm (HS Nozzle) (Optional)
Filament diameter	1.75 mm
Files supported	.stl , XYZ Format (.3w), windows(.3mf), G-code
Operating system	Windows 7 - 8 above (for PC) Mac OSX 10.12 64-bit above (for Mac)
Hardware requirement	X86 64-bit compatible PCs with 4GB+ DRAM (for PC) X86 64-bit compatible Macs with 4GB+ DRAM (for Mac)

## Application



XYZmaker 3DKit comes with an intuitive user interface and a wide variety of professional 3D modeling tools. Even beginners will find it easy to use. New 3D tools let you explore more possibilities in 3D modeling – whether you're working on 3D pixel art, making edits, or building a model from scratch.

XYZmaker 3DKit supports XYZprinting 3D printers to print and monitor printer status to let you create and print in one app.



XYZprint Hub is a one-stop printing service. It allows you to easily access and print your own 3D files.

Access your models using third-party cloud storage in XYZprint Hub such as Google Drive or Dropbox then use the app to preview your model and set up your print settings.

After sending your model to the printer, you can use XYZprint Hub to keep track of multiple prints at the same time and see accurately when the print job will finish.

# Specifications

The troubleshooting instruction may guide you to fix the problem. If any error persists, please contact customer service. When an error occurs, please refer to the service code shown on the printer and/or in the software, and check the suggestions below for troubleshooting.

Technical Support

Website: <http://support.xyzprinting.com>

Email: US - [supportus@xyzprinting.com](mailto:supportus@xyzprinting.com)

EU - [supporteu@xyzprinting.com](mailto:supporteu@xyzprinting.com)

Other regions - [support@xyzprinting.com](mailto:support@xyzprinting.com)



**Please retain all original packaging material when shipping your product for warranty purposes. Shipping without original packaging materials may cause product damaged during the shipment and may cause chargeable service fees.**

Service Code	Symptom	Action
0 0 0 7	Cartridge chip error	Reinstall the cartridge or change a new cartridge.
0 0 0 8	Cartridge chip error	Reinstall the cartridge or change a new cartridge.
0 0 1 1	Extruder heating problem	Check connections, reboot the printer.
0 0 1 4	Extruder heating problem	Check connections, reboot the printer.
0 0 1 6	Cartridge installed incorrect	Install/reinstall cartridge.
0 0 2 8	Cartridge not installed	Install/reinstall cartridge.
0 0 2 9	Cartridge chip error	Replace cartridge 1 before printing.
0 0 3 0	X-axis movement abnormalities	Check motor/sensor connections.Check sensor position.
0 0 3 1	Y-axis movement abnormalities	Check motor/sensor connections.Check sensor position.
0 0 3 2	Z-axis movement abnormalities	Check motor/sensor connections.Check sensor position.
0 0 4 0	SD card error	Check SD card installation
0 0 5 0	Internal communication error	Reboot the printer.
0 0 5 1	Internal communication error	Reboot the printer.
0 0 5 2	Extruder storage error	Replace the extruder.
0 0 5 7	Unable to detect extruder	Please reinstall the extruder and reconnect the flat cable, then restart the printer.
0 2 0 1	Computer and printer connection error	Please reinstall the extruder and reconnect the flat cable, then restart the printer.
0 2 0 B	SD card error	Check SD card installation.
0 2 0 C	SD card error	Check SD card installation.
0 2 0 D	File format is not support	Please use correct print model.

## Other Information

Error message	Action
The printer is handling other task	Try again after all tasks are completed. Also check the information shown on printer display.
Unable to update printer firmware	Check Internet connectivity / Update firmware again later.
Filament 1 jammed	Unload and reload cartridge 1 and clean the nozzle.
Filament 1 loading problem	Unload and reload cartridge 1.
Filament 1 installation problem	Reinstall the cartridge 1 or change a new cartridge.
Top cover open	Close the top cover.
Filament 1 level low: 30m left	Replace cartridge 1 when necessary.
Filament 1 level low: 5m left	Replace cartridge 1 immediately.

1. This product is guaranteed for specific period from the purchase date against any breakdown within the scope of proper and reasonable usage of their product as defined by XYZ printing.  
Presentation of warranty card with the product will ensure free service and repair of inherent faults in the product within the warranty period. However, the following items are separate and dealt with under conditions of other related warranty services:
  - Printing modules / printing platforms / motor modules
  - Attached consumables (including housing, packing materials, power cords, USB cables, coil consumables, user manuals and software CD's): no warranty is given.
2. To protect your right and interests, please request that the dealer fill in the product information and purchase date on the product warranty card, and also make sure that they affix their official seal.
3. Please keep this warranty card in a safe place because if it is lost or destroyed a new one will not be issued.  
Make sure to present the card if you require any repairs, service or maintenance to the product during the warranty period.
4. XYZprinting may levy charges under any of the following circumstances:
  - Man-made damages: In the case of damage to the product caused by incorrect use, wrong installation, abnormal wear, physical damage or deformation caused by falls or blows, burnt circuits resulting from actions from the user, broken or bent interface or pins or any other physical damage to the product caused by misuse.
  - Incompatibility issues: anything unconnected with product malfunctions such as conflict with electronic equipment, expectation of use, noise of operation, speed, discomfort or heat.
  - Damage caused by force Majeure (such as lightning strike, fire, earthquake, floods, civil disturbance or war or any other event beyond human control).
  - Any request of warranty service after expiration of the warranty period.

If you need warranty service, please contact the original dealer or send a ticket via XYZprinting website. If you need more information about our warranty services, please log in to [www.xyzprinting.com](http://www.xyzprinting.com), select "support (product support)" where you will find complete details of all the warranty conditions.

## Other Information

### Federal Communications Commission (FCC) Statement

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

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.

XYZprinting is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

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

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.



# Warning

- Do not let children operate this device without adult supervision. Electric shock hazard. Moving parts can cause serious injury.
- Do not place the printer on an unbalanced or unstable surface. Printer may fall or tumble causing harm and/or injury. Printer may fall or tumble causing harm and/or injury.
- Do not place any objects on top of the printer. Liquids and objects that fall into the printer can lead to printer damage or safety risks.
- Do not use flammable chemicals or alcohol wipes to clean this device.
- Do not disassemble or replace the printer cover with non-XYZprinter covers.
- Do not touch heated surfaces during or after operation. Heated surfaces can cause severe burns.
- Insert and secure the power cord firmly for proper usage and to avoid potential electricity and fire dangers.
- Do not attempt to service the printer beyond the instructions specified in this document. In the case of irrecoverable problem, contact XYZprinting service center or your sales representative.

# Warning!