



da Vinci Jr. WiFi Pro Quick Guide

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

Trademarks

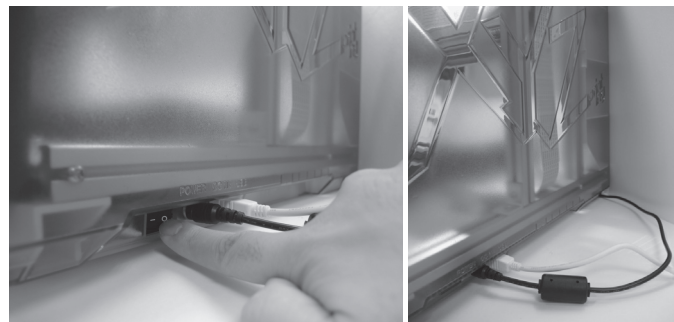
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Editions

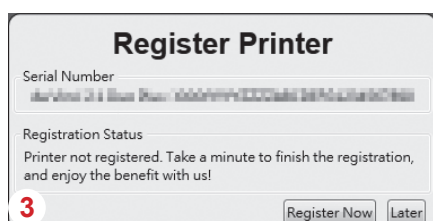
New editions of this manual incorporate new and changed material different from previous editions. Minor corrections and updates may be incorporated into reprints of the current edition without releasing additional announcements or documentation regarding the updated version. The User Manual is for user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



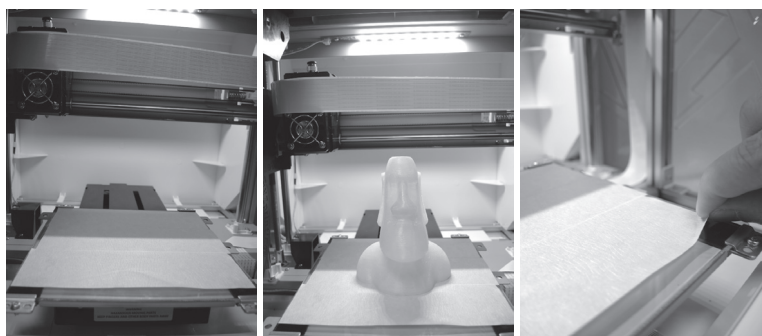
- 1 Before using this printer, please first remove the fixed materials from the extruder module and print bed. Switching on the printer's power without removing these fixed materials may damage the machine.



- 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 Before you start printing, please affix the bed tape on the print bed. The bed tape may be removed after printing is complete. (Bed tape can be reused.)

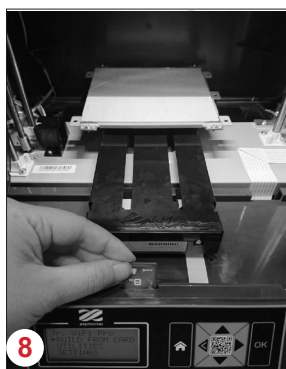
- 5 You may use XYZmaker Suite to initiate manual updates to the printer firmware and software. When using the printer for the first time, we recommend connecting to the Internet and performing manual update once to obtain the latest resources.

- 6 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.

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

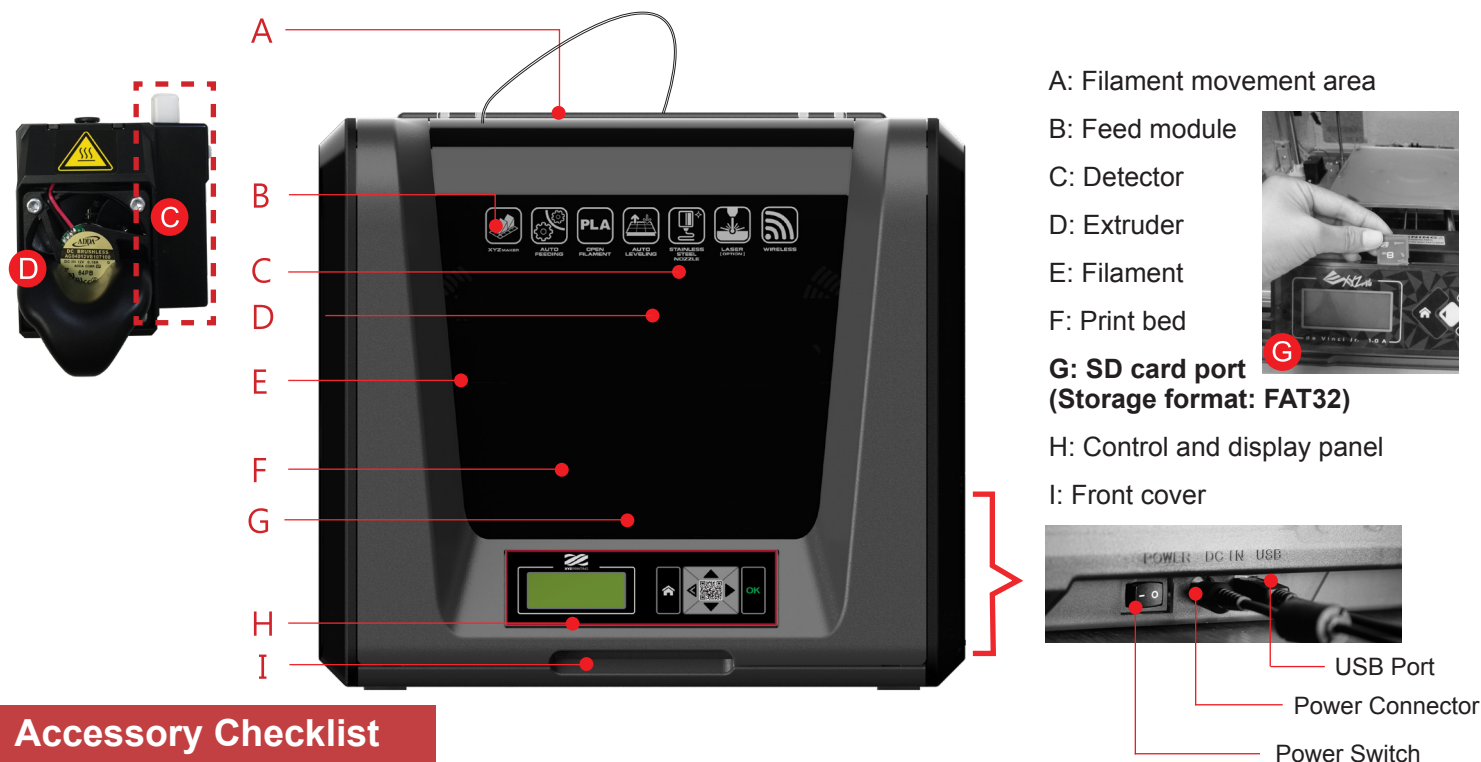
- 8 Before operating the printer, insert the SD card in the SD card port to make sure that the printing program is able to run properly.

- 9 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.

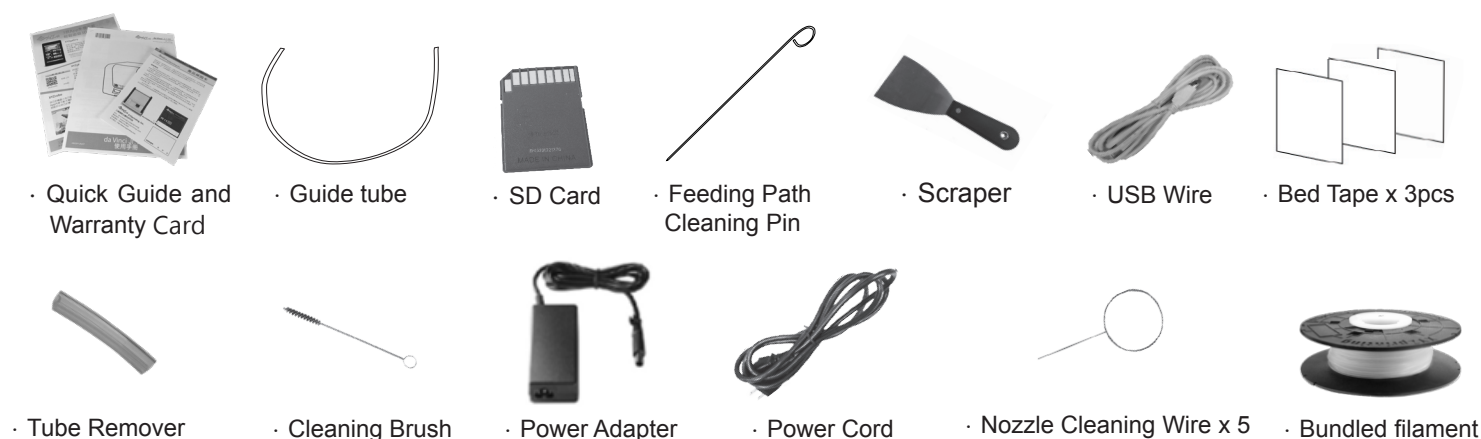


Please carefully read the contents of the product instruction manual before using this product.




Product Overview







Accessory Checklist



Important Safety Instruction for Use of Maintenance Tools

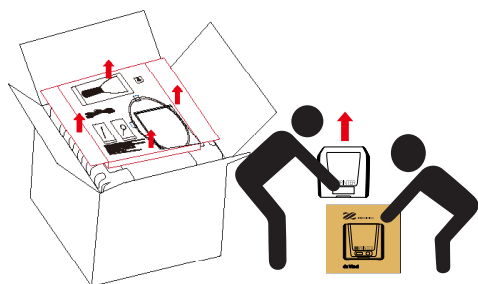
-  The maintenance tools provided should be only handled by an adult. Please keep the tools away from children.
-  Store the gear cleaning brush properly. This tool shall only be used to clean the specified parts of the machine and should not be used for the cleaning of other parts to prevent damaging 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

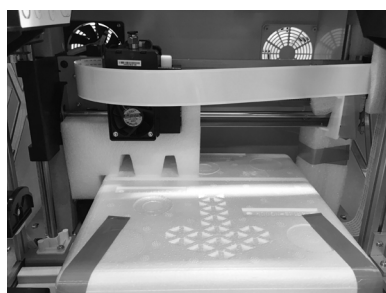
Unpacking the Product



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



- 2 Remove the plastic bag and the tape.



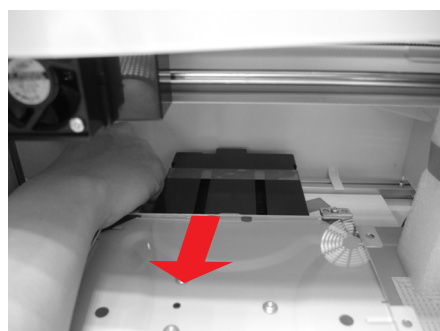
- 3 Remove all fixing tapes and the cushion between print bed and extruder module.



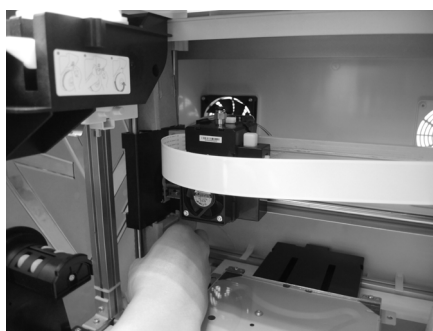
- 4 Be sure to remove the fixing cushion from the axis.



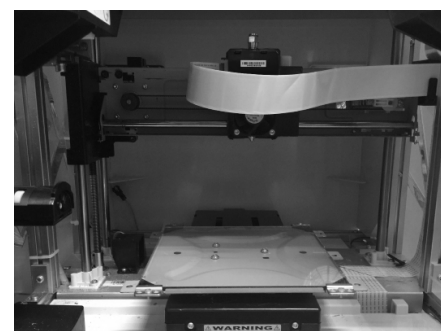
- 5 Remove the securing styrofoam and fixing tapes on the print bed.



- 6 Be sure to remove the fixing tapes at the back of the print bed.



- 7 Be sure to remove the paper cardboard near the Y-axis.



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



- 9 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.

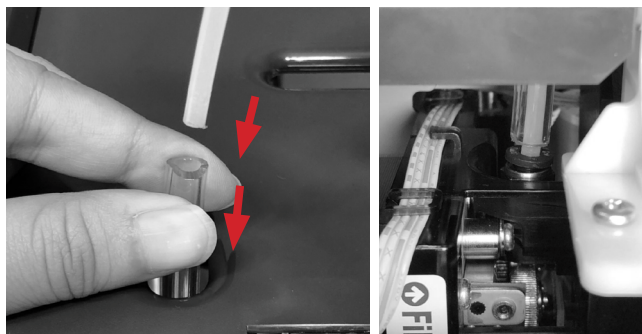


- 10 Use the USB cable to connect the printer to PC. Connect the power cord to the printer then turn on the power switch.

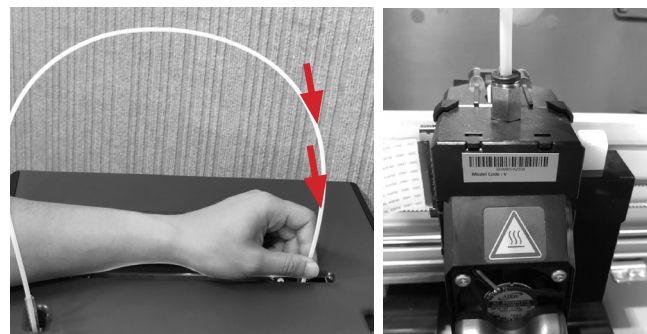
⚠ Please use the original power adapter and power cord along with the printer in order to prevent product damage or safety hazards caused by differences in voltage specifications.

Unpacking the Product

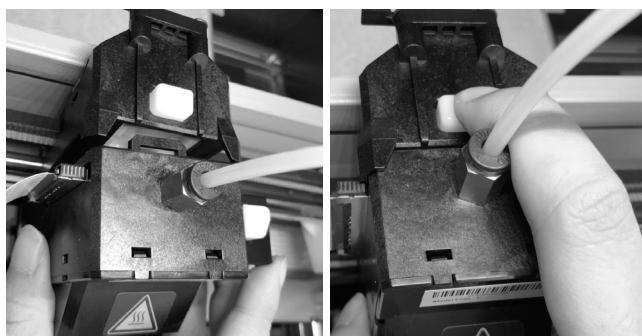
Guide Tube Installation



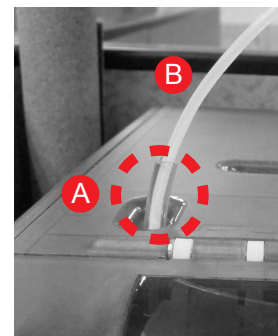
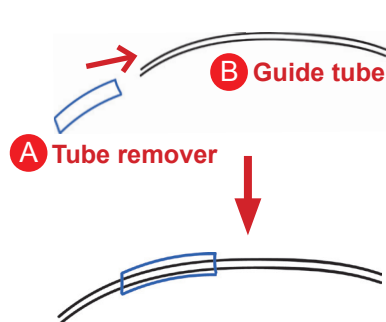
- 1 Please push the tube remover into the extruder module port then ensure that the guide tube has been tightly inserted into the extruder module port.



- 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.

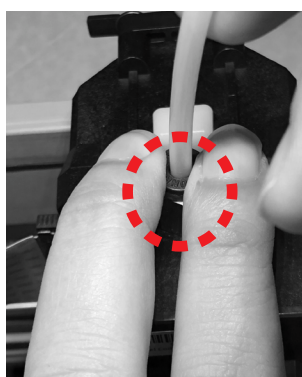


- 3 Place the extruder module that the fitting pin is secured the proper location. Then, insert the black ribbon connector to complete the installation.

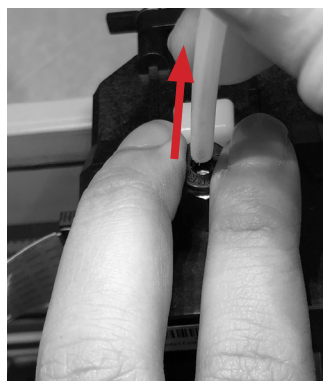


Note:
Please insert the **guide tube (B)** into the **tube remover (A)** which assist to the guide tube installation and remove. Please keep the tube remover on the guide tube after guide installation.

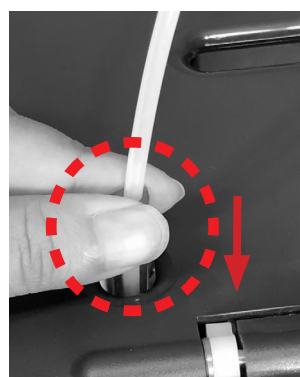
How to Remove the Guide Tube



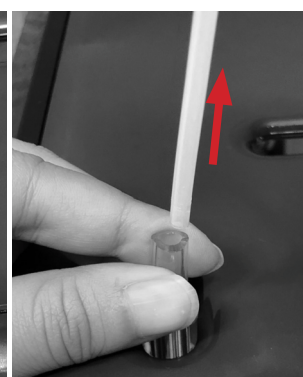
- 1 Use two fingers press the Feeder on the Feed module.



- 2 Pull out the guide tube.



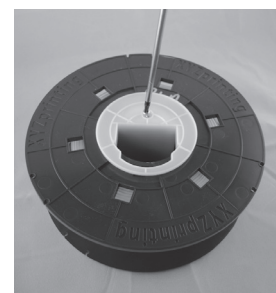
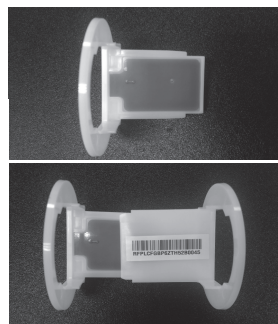
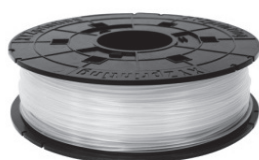
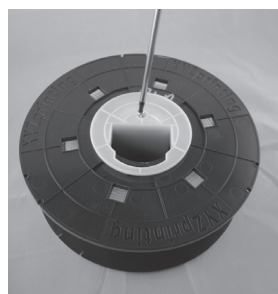
- 3 Please gently press the tube remover, pull the guide tube upwards to remove the guide tube.



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.

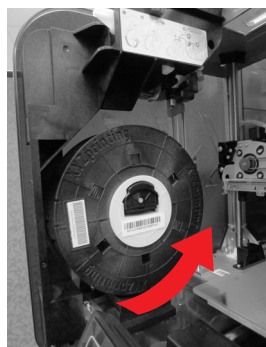
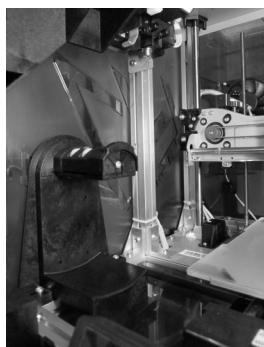
2 Remove the genuine filament and chip, and then install the sensor chip. Please note the direction of the mounting hole on the chip to attach the chip correctly.

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

 **Filament here** 

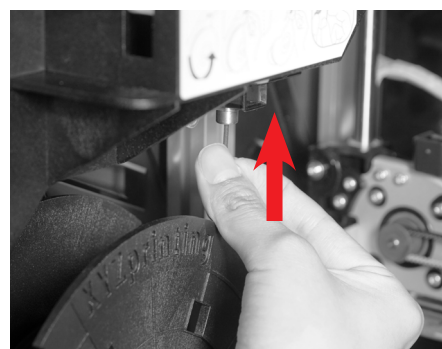
Note: If you are not too sure where the feed module tube port is, you may open the casing of the machine to see the indication label.



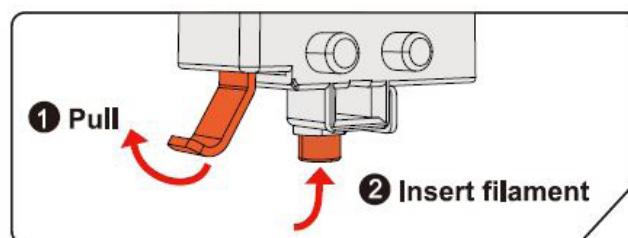
1 Place the assembled filament spool (with the spool axle rings) on the filament holder on the left side of the printer.

⚠ 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° .



2 Click "LOAD FILAMENT", 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 FILAMENT" sections in the "UTILITIES" chapter)

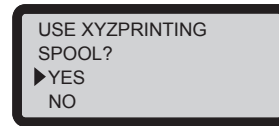
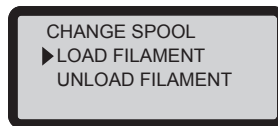
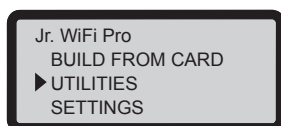


Accessories Installation

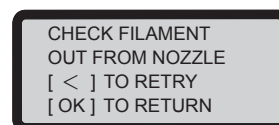
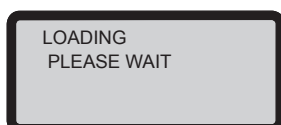
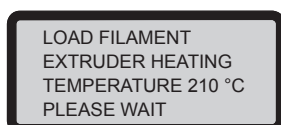
LOAD FILAMENT

*Please refer to P.12 for third party filaments.

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



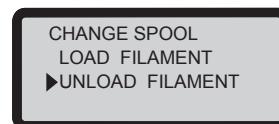
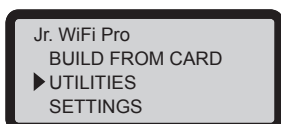
- 1 Select "UTILITIES" > "CHANGE SPOOL" > "LOAD FILAMENT" > "USE XYZPRINTING SPOOL?" > "YES".



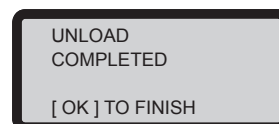
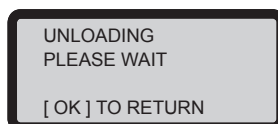
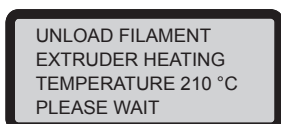
- 2 Insert the filament right into the feed hole. The printer will load the filament automatically. After loading, select "OK" to continue. The printer will warm up to the operating temperature and load the filament.
- 3 Confirm that the filament is flowing out from the extruder; If the filament flows out, press "OK" to exit.

UNLOAD FILAMENT


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



- 1 Select "UTILITIES" > "CHANGE SPOOL" > "UNLOAD FILAMENT".



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

 **Note:** Always implement the "UNLOAD FILAMENT" 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.

HOME AXES

"HOME AXES" moves the extruder to the lower left corner.

To home axes :

HOME AXES
ARE YOU SURE?
NO
YES

HOME AXES
COMPLETED
[OK] TO RETURN

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).

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 bed tape 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.



Z OFFSET 0.91 mm
[^]
[v]
[OK] WHEN FINISH

After adjusting, press "OK" to exit.

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:





JOG MODE
X-AXIS
Y-AXIS
▶ Z-AXIS

- 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.

Z-AXIS [OK] >> EXIT
[-] ◀ [0.1mm] ▶ [+]
1mm
10mm

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

BUILD FROM CARD

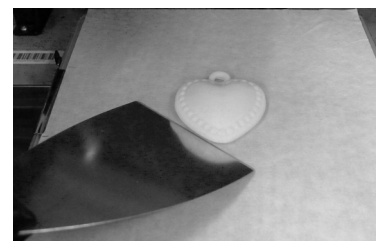
1 sample models are built into the printer. You may begin your first 3D prints with the samples.

To print a sample :

BUILD (SD CARD)
▶ SAMPLE



START BUILDING
SAMPLE
NO
▶ YES



- 1 Select a sample to print.
- 2 Put the bed tape on the print bed.
- 3 Select "YES" to start printing.
- 4 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.

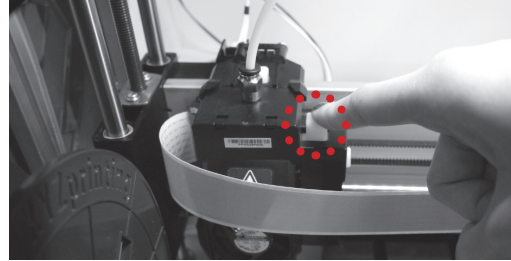
UTILITIES

CALIBRATE

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 Press the detection head on the right side of the print head according to the instruction of screen message, followed by pressing OK.

PRESS SWITCH
NEXT TO EXTRUDER
[OK] TO CONTINUE



- 3 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.

CALIBRATE
SUCCESS
AUTO LEVEL OFF
[OK] TO RETURN

CALIBRATE
SUCCESS
AUTO LEVEL ON
[OK] TO RETURN

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.

CALIB FAILED
[OK] TO CONTINUE

PLEASE CONTACT
CUSTOMER SERVICE
FOR LEVEL ISSUE
[OK] TO RETURN

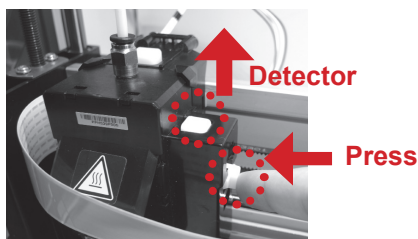
A 0317 0320 0313
B 0318 0323 0308
C 0312 0300 0440
[OK] TO RETURN

- 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.

A 0000 0000 0000
B 0000 0000 0000
C 0000 0000 0000
[OK] TO RETURN

CALIBRATE COMPLETED

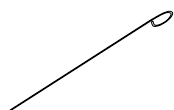
After detecting the print bed, the detector by the extruder module may be switched off automatically. Ensure the detector is switched off before printing.



UTILITIES

CLEAN NOZZLE

● Tools Preparation



A. Feeding Path Cleaning Pin

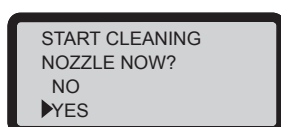


B. Cleaner Wire

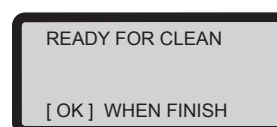
Carbon deposits and dirt accumulated in the nozzle will increase with the printing times and impact the printing quality. We suggest that you clean the nozzle after every 25 hours of printing.

● Guide to Clean Nozzle

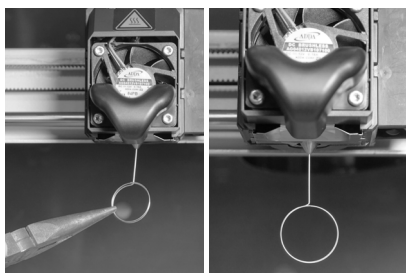
- 1 Select "UTILITIES" > "CLEAN NOZZLE" > "YES".



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

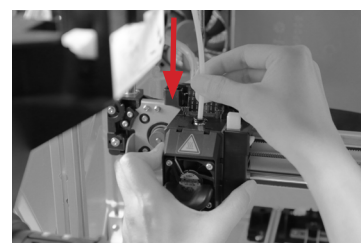
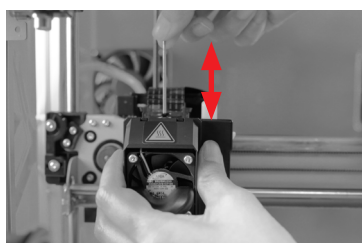
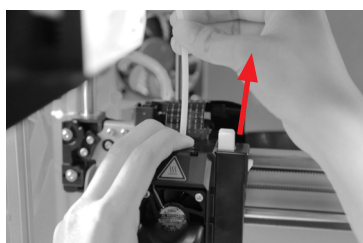


- 3 Insert the cleaner wire into the hole of the nozzle carefully with a nipper. After inserting the wire, press "OK" to exit.




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.

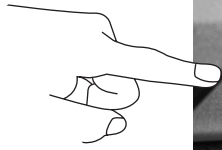
- 1 "CLEAN NOZZLE" function again and wait until the extruder is heat up to working temperature. (Care should be taken during the operation to avoid potential burn injuries.)
- 2 Press the spring around the feeding path and pull out the guide tube. (Do not detach the white flat cable above the nozzle.)
- 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 (CALIBRATE). Then, do print bed leveling after completing clean nozzle. (Please refer to the "Print Bed Leveling" section).

UTILITIES

 **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



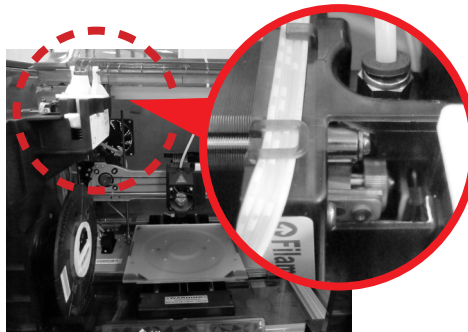
B. Screwdriver (T10) for standard cleaning procedure

A. Quick Cleaning

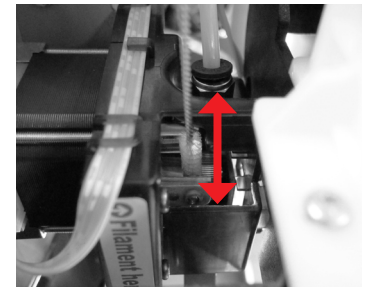
CHANGE SPOOL
LOAD FILAMENT
► UNLOAD FILAMENT



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



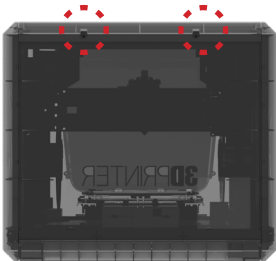
2 Open the front cover to clean the feeding module on the left side of the printer.



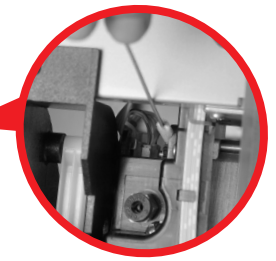
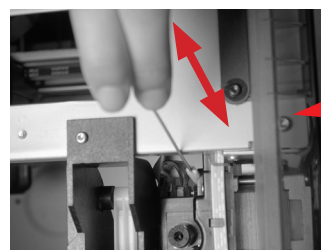
3 Use the cleaning brush to scrub the gear. After removing the filament residues on the gear, you can insert the filament back and enjoy printing.

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 FILAMENT" 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.

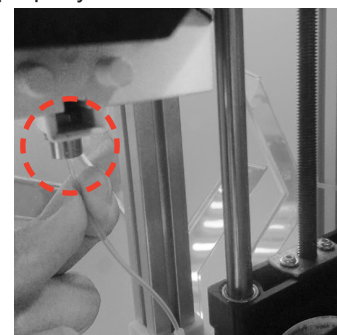


3 Use the cleaning brush to scrub the gear; after removing residues of filament on the gear, you can insert the guide tube and put the cover back and then enjoy printing again.

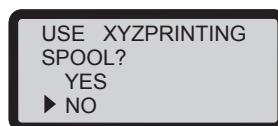
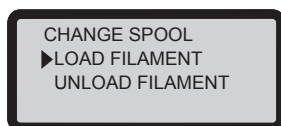
Clean Instruction

Open Filament

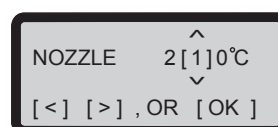
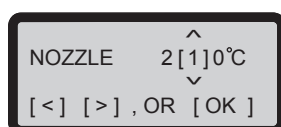
- 1 If you're using third party filaments, please secure the filament using the holder.
- 2 Load the filament from the back of the printer.
- 3 In the printer, insert the filament into the feed port. Open the release arm so that the front tip of the filament can be properly inserted into the feed module.



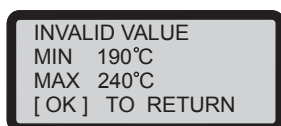
- 4 Load the filament function of the printer function. When the panel displays: "USE XYZPRINTING SPOOL?", select "NO" > "APPLY SETTING" (and enter temperature settings).



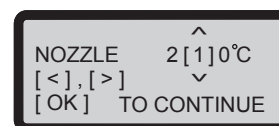
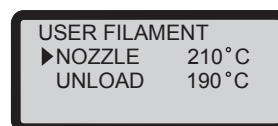
- 5 Adjust the nozzle temperature according to the supplier's recommendations. Use the left [<] and right [>] buttons to select the digits. Use the up [^] and down [v] buttons to increase or lower the number.



- 7 The recommended printing temperature range is 190 to 240°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

da Vinci Junior Wifi Pro 3D Printer

Model Name	da Vinci Jr. WiFi Pro 3D Printer
Dimensions	16.54 x 16.93 x 14.96 inches (420 x 430 x 380 mm)
Weight	26.46 lbs (12kg)
Display	2.6" 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	150 x150 x150 mm
Print resolution (Layer Hight)	20 - 400 microns
Print module	Single Nozzle
Nozzle diameter	0.4mm(Stainless Steel) / 0.4mm (High Carbon Steel) (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 10.10 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)

Environmentally friendly materials-PLA

PLA filaments are made using polymerized lactic acid, which is extracted from corn, sugarcane or other sugar-containing crops, and is regarded as the most environmentally friendly 3D printing material. Unwanted PLA printed objects can be simply discarded in the soil where it will naturally decompose.

PLA materials printed at low temperatures are not only suitable for family settings, its bright texture also makes it a favorite amongst our clients. You may observe the characteristics of PLA during printing.

- Despite their harmlessness, PLA placed in an environment or water bath exceeding 50 °C (122 °F) will soften and deform.
- Hence, overly humid areas are not suitable storage environments for PLA. We recommend properly sealing and stashing away unused PLA filaments.
- A sugary smell is often generated when printing with PLA filaments, giving yet another attractive feature.

Specifications