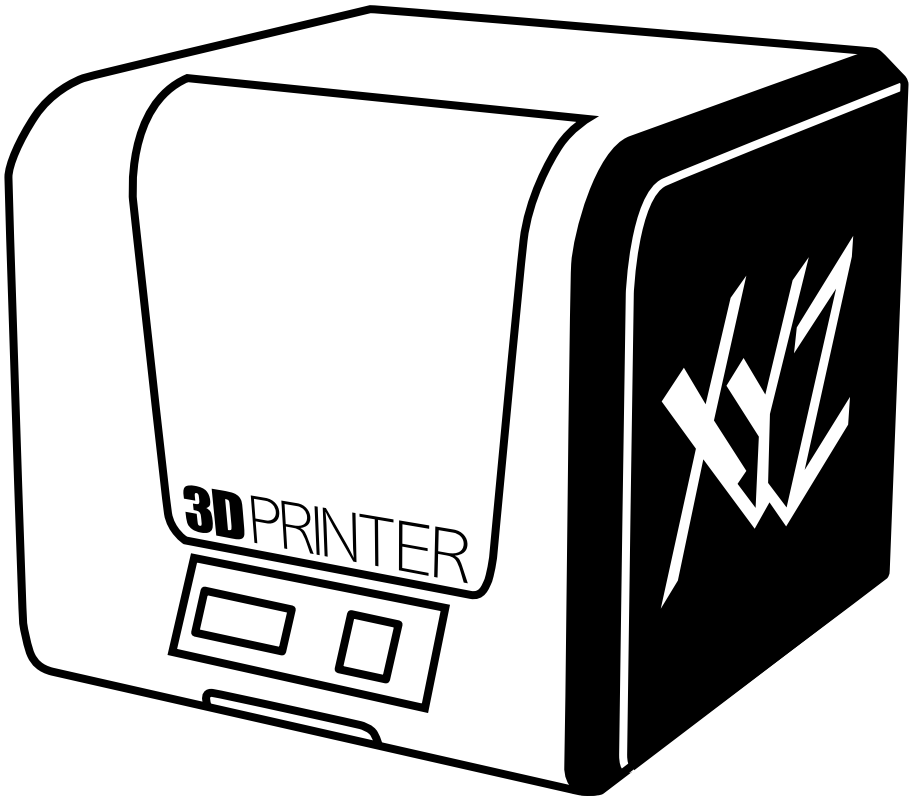


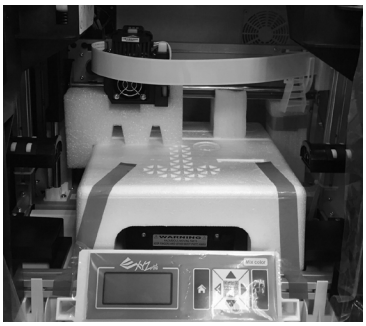
da Vinci Jr.1.0 Pro
Quick Guide

The purpose of this user manual is to help users understand and use the da Vinci Jr. 1.0 Pro 3D printer correctly. It contains the operating instructions, maintenance information and application skills of the da Vinci Jr. 1.0 Pro 3D printer. To learn more about the latest news of the da Vinci Jr. 1.0 Pro 3D printer, please contact local dealers or visit the official website of XYZprinting: http://www.xyzprinting.com

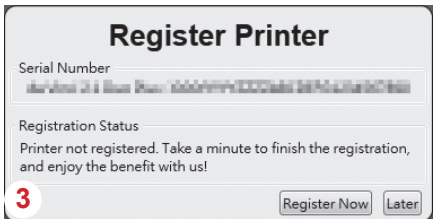
Trademarks

Print History

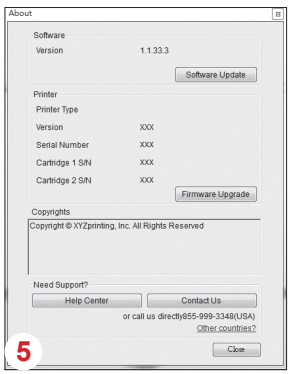
New editions of this manual incorporate new and changed material different from previous editions. Minor corrections and updates may be incorporated into reprints of the current edition without releasing additional announcements or documentation regarding the updated version. The User Manual is for user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

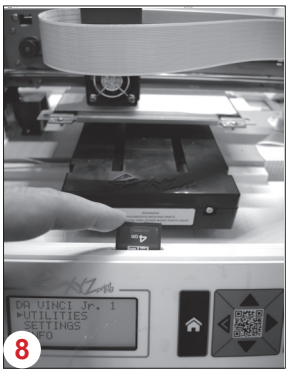


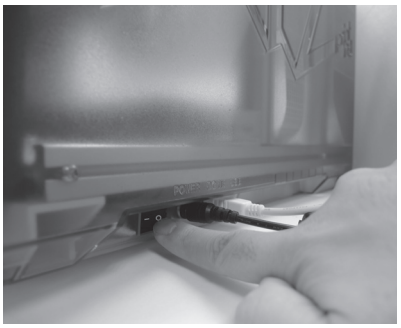
1 Before using this printer, please first remove the fixed materials from the printing module and printing bed. Switching on the printer's power without removing these fixed materials may damage the machine.

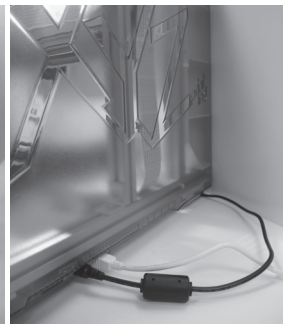


3 Registration via XYZware Pro before your first print is strongly recommended. When registered with XYZprinting, you will receive latest technical supports and updates. To register, simply click "Register Now" to begin.

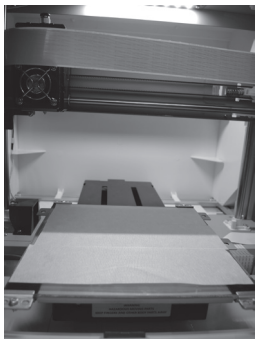


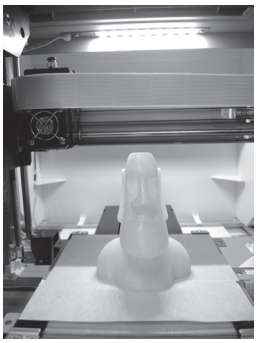






2 Before launching XYZware Pro, connect the PC to with printer using the USB cable. For a better user experience, it is strongly advised to follow the proper procedure for using the product.





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 XYZware Pro 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.

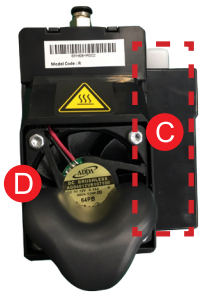
6 The optimal room temperature for printing is 15-32 ˚C (60-90 ˚F). Printing quality may be affected if room temperature is higher or lower.

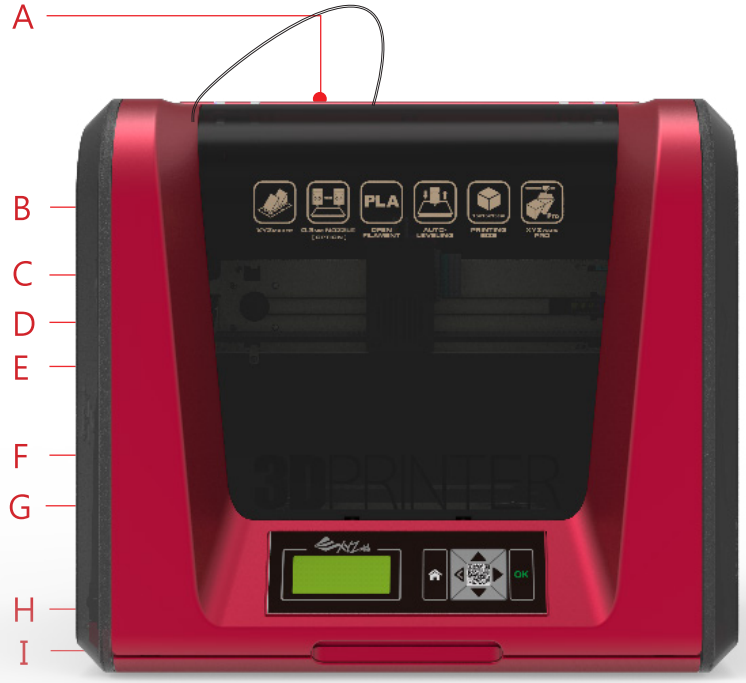
7 If you need more detailed technical support and program resources, visit the website: http://support.xyzprinting.com/global_en/Support

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.

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

Product Overview

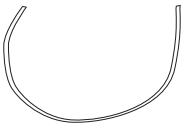




A: Filament movement area
B: Feed module
C: Detector
D: Extruder
E: Filament
F: Print bed
G: SD card port
(Storage format: FAT32)
H: Control and display panel
I: Front cover

USB Port
Power Connector
Power Switch

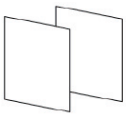
Accessory Checklist

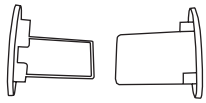

· Guide tube


· Feeding Path Cleaning Pin


· Cleaner Wire x 5


· USB Wire


· Bed Tape X 3pcs


· Filament spool axle ring

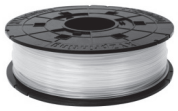

· Cleaning Brush


· Scraper


· SD Card


· Power Adapter


· Power Cord


· Bundled filament

Important Safety Instruction for Use of Maintenance Tools

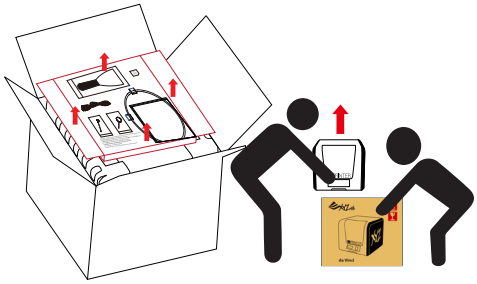
- The maintenance tools provided should be only handled by an adult. Please keep the tools away from children.

- 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

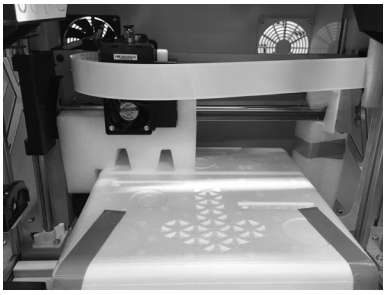
- Do not place the printer in humid or dusty environment such as bathrooms and high traffic areas.
- Do not place the printer on a rickety surface and/or inclined position. Printer may fall down/or tumble and it may cause serious injury.
- Please keep the front door closed during printing to avoid injury.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

Product Overview



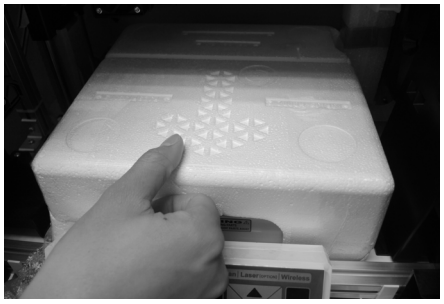
1 Open the box and remove the accessories and cushions.

2 Remove the plastic bag and the tapes.

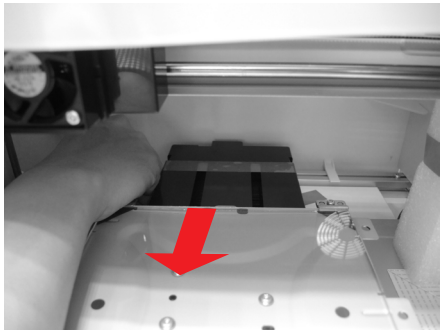


3 Remove all fixing tapes and the cushion between print bed and extruder module.

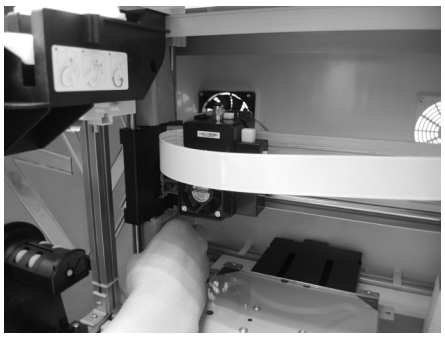
4 Be sure to remove the fixing cushion from the axis.



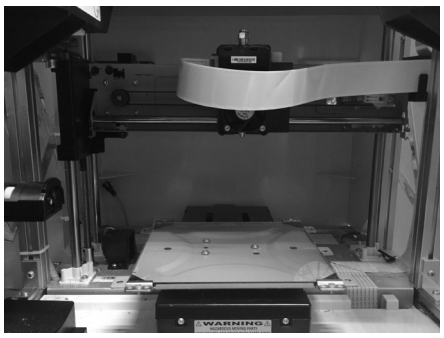
5 Remove the securing styrofoam and fixing tapes on the print bed.



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 XYZware Pro 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.

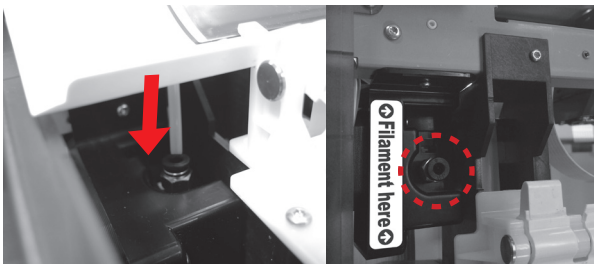
Note: please use the original power adapter and power cord along with the printer in order to prevent product damage or safety hazards caused by differences in voltage specifications.

Unpacking the Product

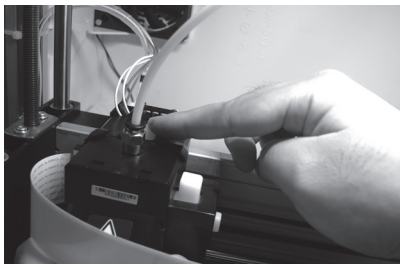
⚠Note: Please follow these steps and ensure that the guide tube is properly installed before starting the "LOAD FILAMENT" function. Failure to install the guide tube may disrupt filament feed.

Install the filament guide tube

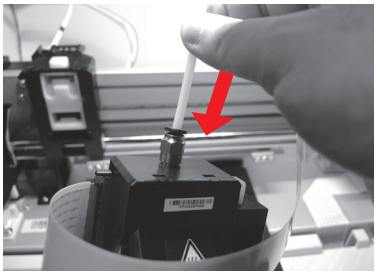
1 Direct the guide tube from the tube movement area out of the machine and then insert the other end of the filament tube into the feed module tube port.



2 Ensure that the guide tube has been tightly inserted into the feeding hole.



3 Remove the extruder
Press the white button at the back of the extruder to release it.



4 Install the filament guide tube to the extruder
Insert the guide tube into the feed hole all the way down and install the extruder back to the printer.

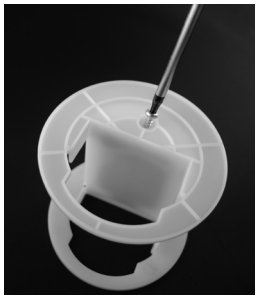
5 Install the extruder
Align the extruder with the bracket and press the extruder to attach it to the socket.

Filament here

Reminder: 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.

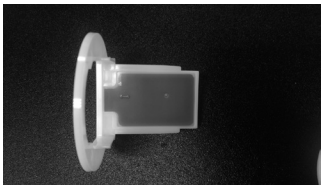
Installing the Accessories

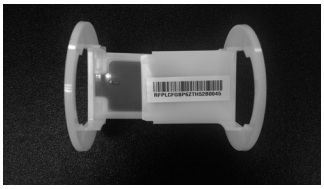
CHANGE SPOOL

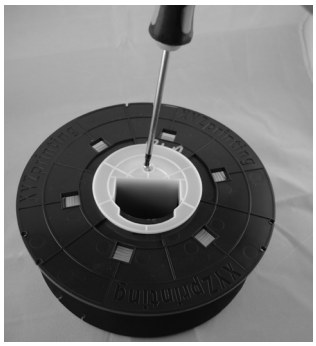


1 First retrieve filament spool to install the filament spool axle ring.

2 Take out and separate the filament spool axle ring into its two components.

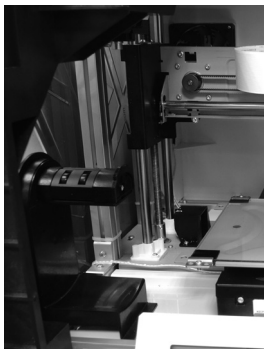


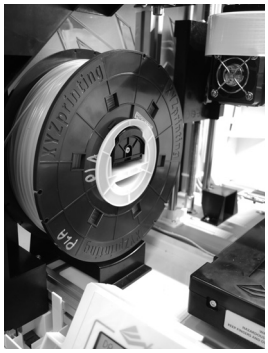


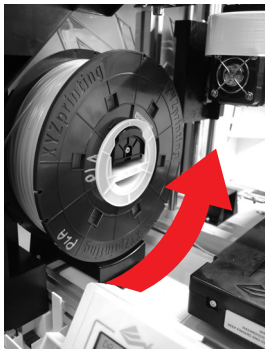


3 Install the sensor chip. Please pay special attention to the position of the installation holes on the chip.

4 Insert the filament spool axle ring components to either side of the filament spool, and use a cruciform screwdriver to tighten and secure the rings to the axle to complete the installation of the filament spool axle rings.





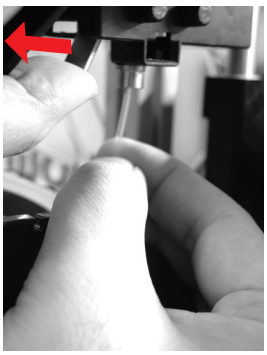


5 Place the assembled filament spool (with the spool axle rings) on the filament holder on the left side of the printer.

6 Pull out a section of the filament and insert it into the feed port.

⚠**Caution: Pay attention to the direction the filament is being pulled out and ensure that the filament spool axle is being rotated in the correct manner.**

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

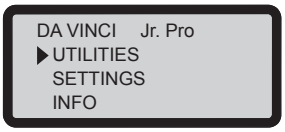


7 Open the release arm and push the filament all the way to the bottom so that the front end of the filament is completely inserted into the feed module.

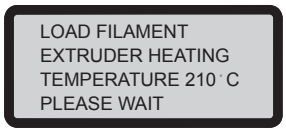
Load Filament

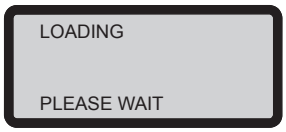
LOAD FILAMENT

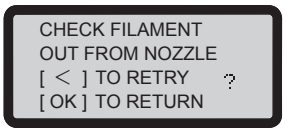
Then load filament using the control panel on the printer…



1 Select "UTILITIES" > "CHANGE SPOOL" > "LOAD FILAMENT" > "YES".





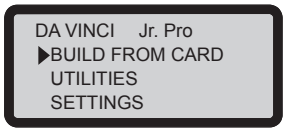


2 Wait for the extruder to heat up and load filament.

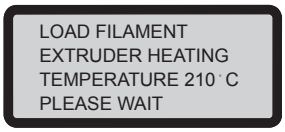
3 Check if the nozzle outputs filament and press "OK" to go back to main menu.

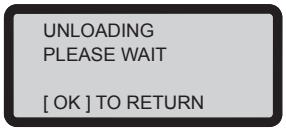
UNLOAD FILAMENT

First unload filament using the control panel on the printer…



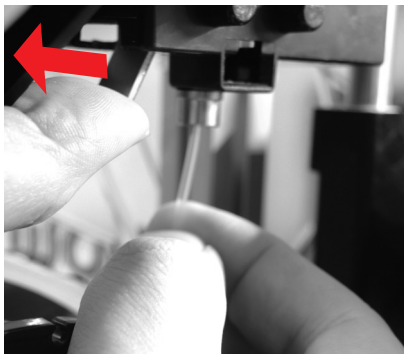
1 Select "UTILITIES" > "CHANGE SPOOL" > "UNLOAD FILAMENT".

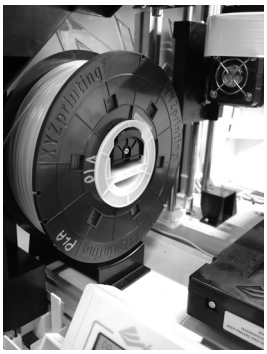




2 Wait for the extruder to heat up and unload filament. Press "OK" to pull out filament.

When finishing "UNLOAD FILAMENT"





First open the release arm and then pull out the filament with spool axle rings. Arrange it properly for later use.

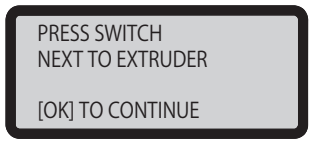
Note: Always implement the "UNLOAD FILAMENT" function when replacing the cartridge in order to ensure proper removal of the filament. Cutting filament too closely to the print head may result in residual filament blocking and causing damage to your print head.

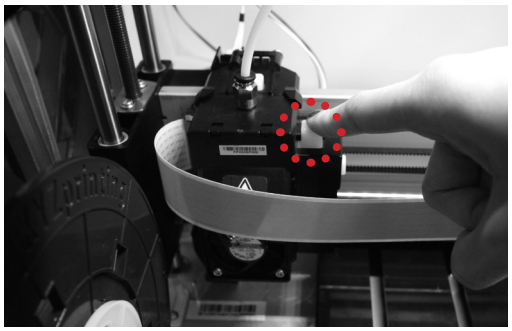
Unload Filament

CALIBRATE

Calibration is enabled for this new extruder module. Please update printer firmware via XYZware before using the new extruder.

1. Active print bed calibration by selecting “UTILITIES”>”CALIBRATE”>”YES” on the screen.
2. Press the detection head on the right side of the print head according to the instruction of screen message, followed by pressing OK.





3. Wait for detecting.

4-1A. If "CALIB COMPLETED" is shown for the detection result, and "AUTO-LEVELING IS DISABLED NOW" is shown on the screen, it indicates good platform levelness. Press "OK" to exit and print.

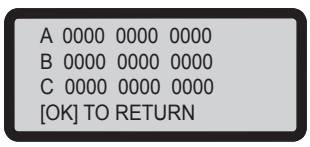
4-1B. If you see "AUTO-LEVELING IS ENABLED NOW", this indicates that the print bed is slightly unleveled. The printer will adjust the configuration based on the detecting result automatically while "AUTO LEVEL" is enabled. The printing mode helps to improve printing quality with slower printing speed. You may switch off the function under "Settings".

4-2A. If the detecting result is shown as “FAIL”, press "OK" to go to next page, and press "OK" again to exit.

4-2B. And check the detecting result by going to “INFO”> ”LEVELING INFO”. Contact customer service for the issue and provide the details of leveling information.

⚠ Note:

1. The dirt on the detection pin and the top of Extruder module will influence detection result. Make sure that the dirt is cleaned before calibration.
2. If the residues is on the top of the Extruder module, the detection result will be shown as follows. Clean the dirt before recalibration.



3. The printer may enable or disable auto-level based on the result of calibration. You may switch off the function manually under "Settings".

HOME AXES

“HOME AXES” moves the extruder to the lower left corner.

To home axes:

Select “YES” to proceed.

JOG MODE

“JOG MODE” is used to manually move the extruder and the print bed.

To move the extruder:

1.Select “X-AXIS” (to move right and left) and "Z-AXIS" (to move up and down). Execute "Home Axes" function first to move "Z-AXIS". “Y-AXIS” (to move print bed backwards and forwards).

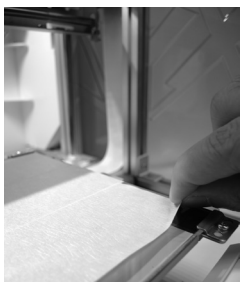
2.Select desired increment of travel with and buttons, and press (or hold) or button for desired direction to move the extruder.

BUILD FROM CARD

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

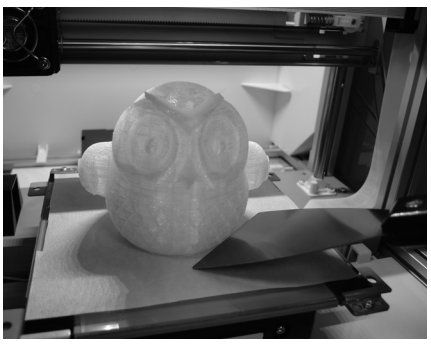
To print a sample:

1.Select a sample to print



2.Put the bed tape on the print bed.

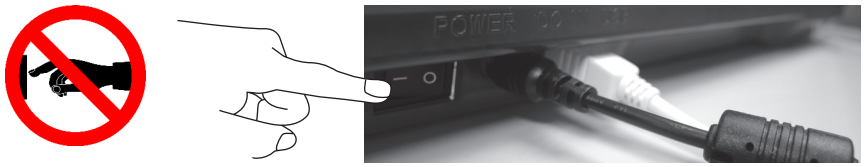
3.Select "YES" to start printing



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

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
UTILITIES>CLEAN NOZZLE
to remove the blocks out of the print head.

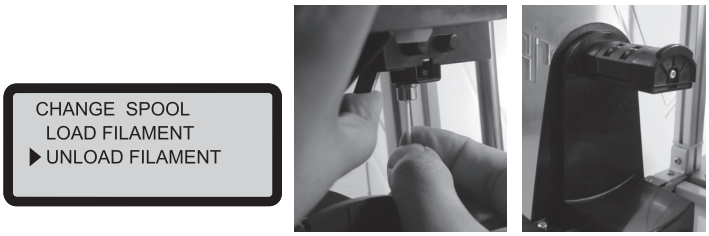
This section describes how to clean the feed module. After heavy use of printer, if feeding of material becomes difficult or impossible, please follow these steps.

Preparation of Tools

A. Cleaning brush that comes with the printer

B. Screwdriver (T10) for standard cleaning procedure

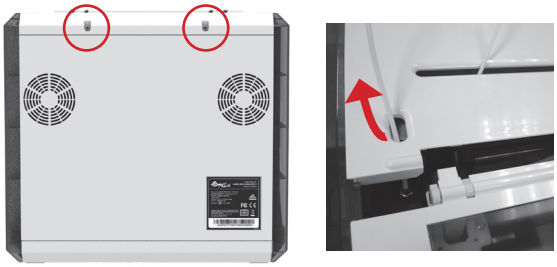
A. Quick Cleaning



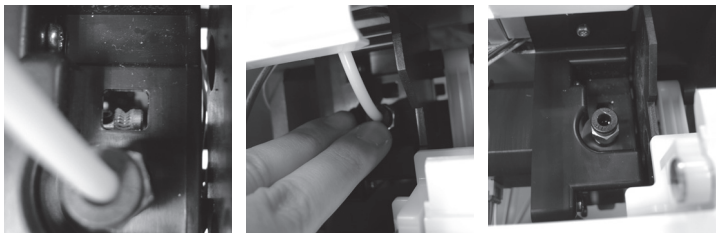
1. Use the “UNLOAD FILAMENT” function to loosen and remove the filament.

2. Use the cleaning brush to scrub the feed gear back and forth to remove the chips of filament out of the gear. Replace the wire after the cleaning is completed.

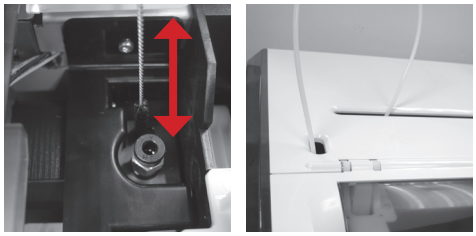
B. Standard Cleaning



1. Use the screwdriver to remove the screw and open the top cover.



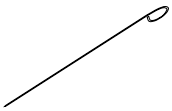
2. Press the black rubber fixer on top of hole and pull the guide tube out.



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

CLEAN NOZZLE

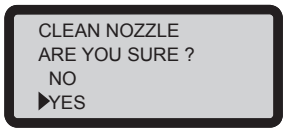


A.Feeding Path Cleaning Pin

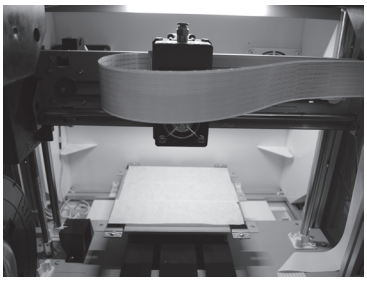
B.Cleaner Wire

Over time, carbon deposits or filament dust buildup in the nozzle may decrease its performance. It is advised to clean the nozzle after every 25 hours of printing.
Also, if the print bed calibration shows “ERR” or if there is any residue on your prints, you may try to clean the nozzle.

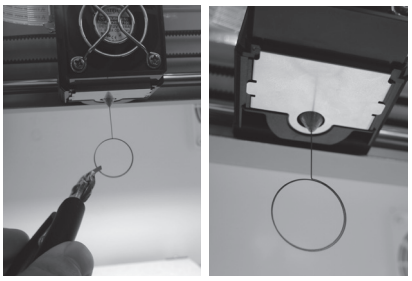
To clean the nozzle:



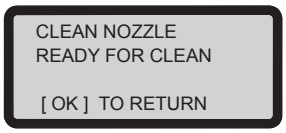
1.Select "YES" to begin.



2.Wait until the extruder heats up and moves to the front, and the screen shows “READY FOR CLEAN”

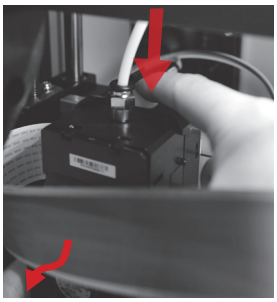


3.Hold the cleaning wire with the pliers, and carefully pass the wire through the nozzle openning.



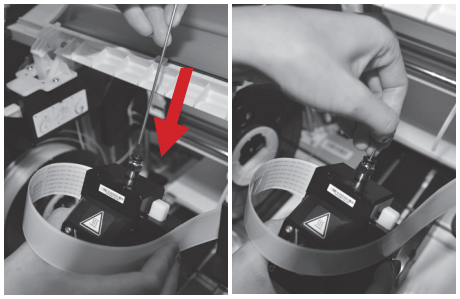
4.Select "OK" to return.

If the cleaning cycle does not unclog the extruder, try cleaning the feeding path by following the steps below.
1.Unload filament correctly (refer to “UNLOAD FILAMENT”).
2.Move the extruder and the print bed to the home position by using the HOME AXES function.
3.Activate “UNLOAD FILAMENT” again and wait until the extruder is heat up to 150℃ . (Care should be taken during the operation to avoid potential burn injuries.)



4.Press the white button at the back of the extruder to release it.

5.Lightly press the spring around the feed hole and remove the filament guide tube (do not disconnect the white flat cable)



6.Insert the thick cleaning wire into the feeding path all the way down and “floss” the inside of the nozzle to pull the residue out.

7.After cleaning the feeding path, reinstall the guide tube to the top of the extruder and install the extruder to the bracket.

Z OFFSET (adjust the printer module)

The user may use the Z OFFSET function to adjust the gap between the printing nozzle and the printing bed.
Caution: This printer has already been tested and adjusted to the optimal gap between the printing nozzle and printing bed before shipping. We recommend recording the original settings before carrying out any adjustments.

Z OFFSET settings adjustment

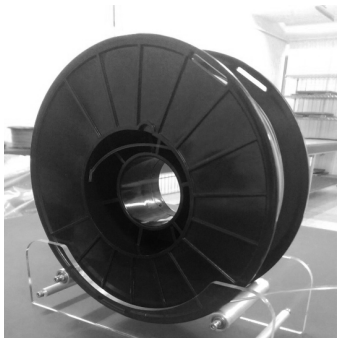
1.The recommended distance between the nozzle and print bed (with bed tape securely fastened) is 0.3mm.
This should allow two sheets of copy paper to be drawn out smoothly but six sheets of copy paper cannot be passed.

2.Increase/decrease the value based on a scale of 0.05mm.
Increasing the value will increase the gap between the print module and print bed by 0.05mm
Decreasing the value will also decrease the gap between the print module and print bed by 0.05mm

UTILITIES

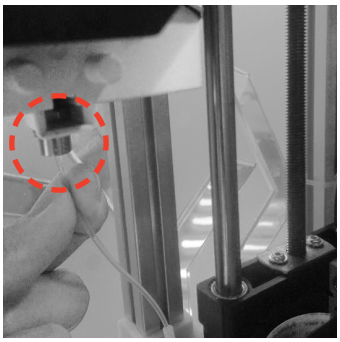
Install Compatible filament

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

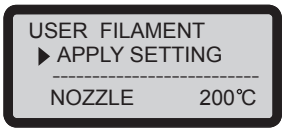


2 Load the filament from the back of the printer.

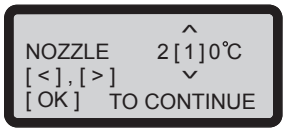
3 In the printer, insert the filament into the feed port. Open the release arm so that the front tip of the filament can be properly inserted into the feed module.



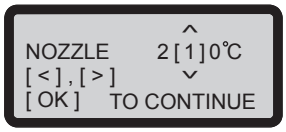
4 Load the filament function of the printer function. When the panel displays: "USE XYZPRINTING SPOOL? ", select "NO "> "APPLY SETTING " (and enter temperature settings).



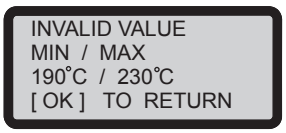
5 Adjust the nozzle temperature according to the supplier's recommendations.
Use the left 【 < 】 and right 【 > 】 buttons to select the digits. Use the up 【 ∧ 】 and down 【 ∨ 】 buttons to increase or lower the number.



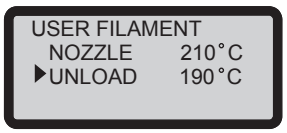
6 Once temperature settings have been completed, press "OK" to complete the settings.

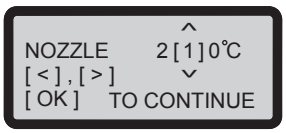


7 The recommended printing temperature range is 190 to 230˚C. The screen would display a temperature range reminder if the temperature settings exceed this recommended range.



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 1.0P 3D Printer

Model Name	da Vinci Junior 1.0P 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
Print Technology	FFF (Fused Filament Fabrication)
Build Volume	5.9 x 5.9 x 5.9 inches （15 x15x15cm）
Print resolution	100 - 400 microns
Print module	Single Nozzle
Nozzle diameter	0.4 mm , 0.3mm (Optional)
Filament diameter	1.75 mm
Printed temperature	190℃ ~230℃ / 374 °F ~446 °F
Files supported	.stl , XYZ Format(.3w) , g-code*
Operating system	Windows 7 - 8 above (for PC) Mac OSX 10.9 64-bit above (for Mac)
Hardware requirement	X86 32/64-bit compatible PCs with 4GB+ DRAM (for PC) X86 64-bit compatible Macs with 4GB+ DRAM (for Mac)

*For 3rd G-Code slicing, please refer to generic printer SPEC (especially printing temp, printing size..etc)
*Only support Cura and Slic3r software (Flavor Selected: RepRap (Marlin/Sprinter))

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