



**da Vinci 2.1 Duo Plus**  
**Product name: 3D Printer**

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Advanced Maintenance Tools ——— P.5

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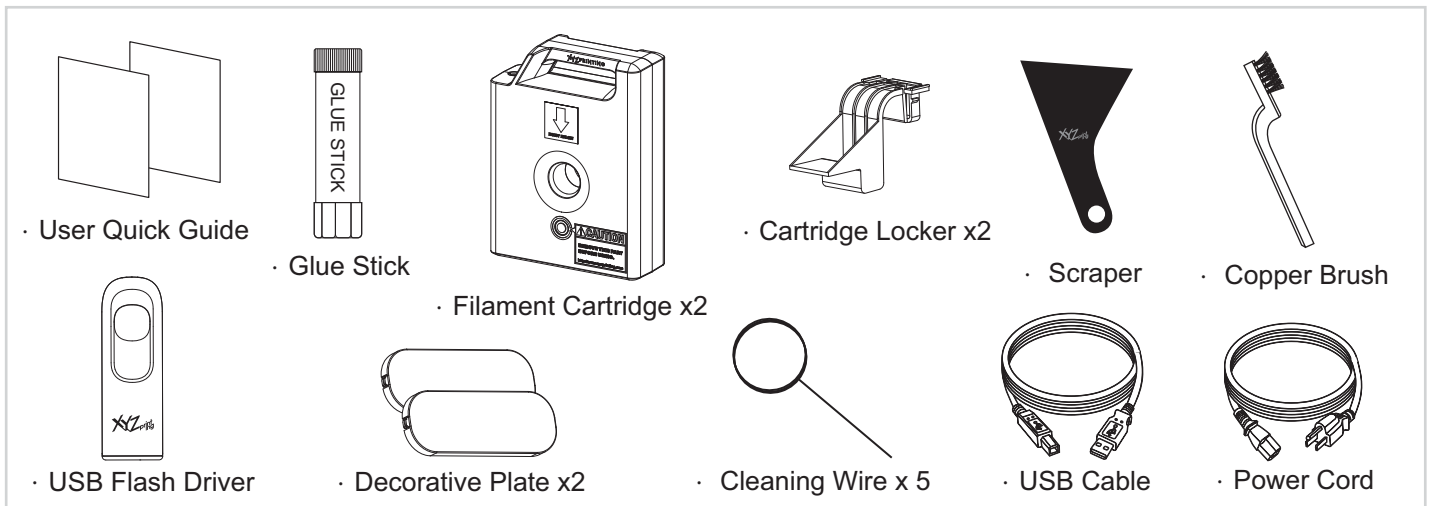
HD23F21X006



## Overview

This guide provides details on how to start off your da Vinci 2.1 Duo Plus 3D printer correctly. Please read the instructions before starting to print.

- How to open the box safely
- How to load filament
- Getting to know XYZWare software

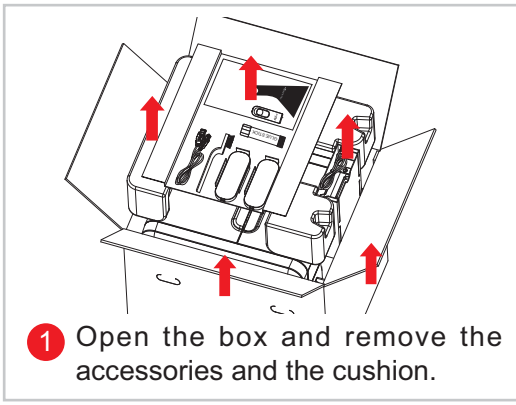


## Important safety Instruction

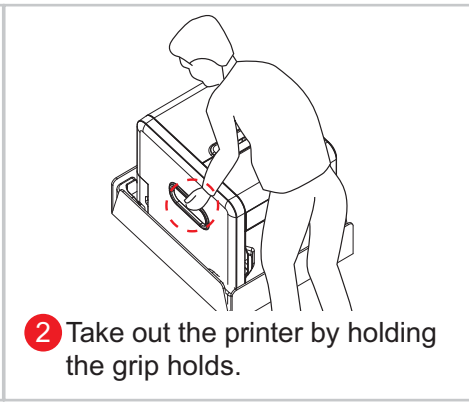


- Do not place the printer in humid or dusty environment such as bathrooms and high traffic areas.
- Do not place the printer on a rickety surface and/or inclined position. Printer may fall down/or tumble and it may cause serious injury.
- Do not touch the interior of the printer while printing. As it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


## Open the box



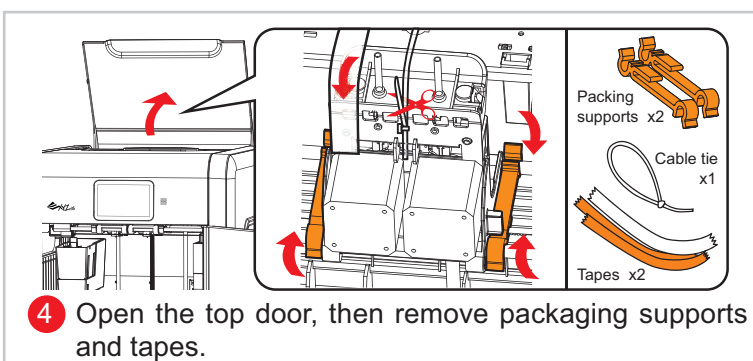
**1** Open the box and remove the accessories and the cushion.



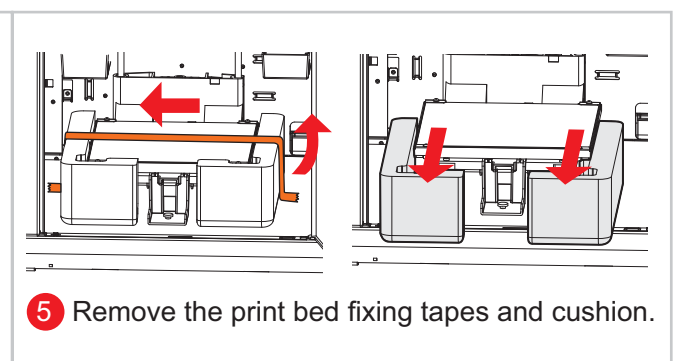
**2** Take out the printer by holding the grip holds.



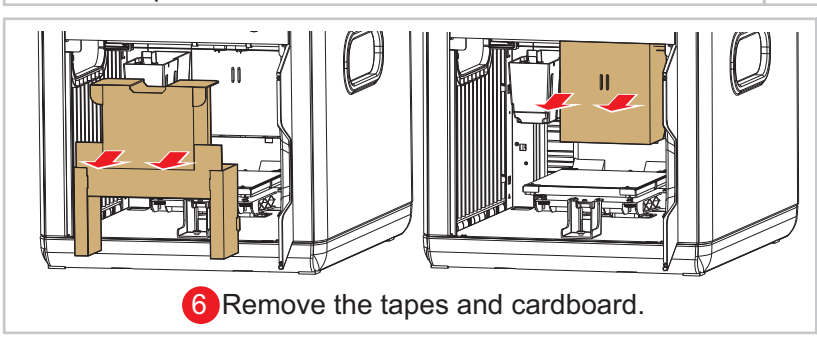
**3** Remove plastic bag and tapes.



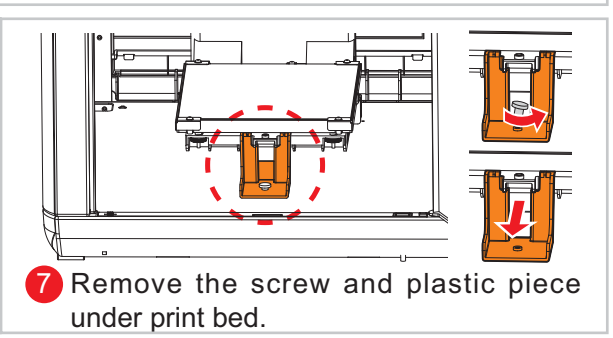
**4** Open the top door, then remove packaging supports and tapes.



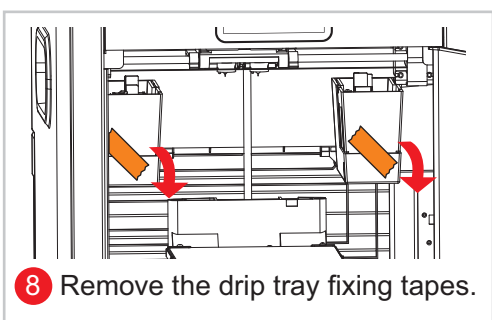
**5** Remove the print bed fixing tapes and cushion.



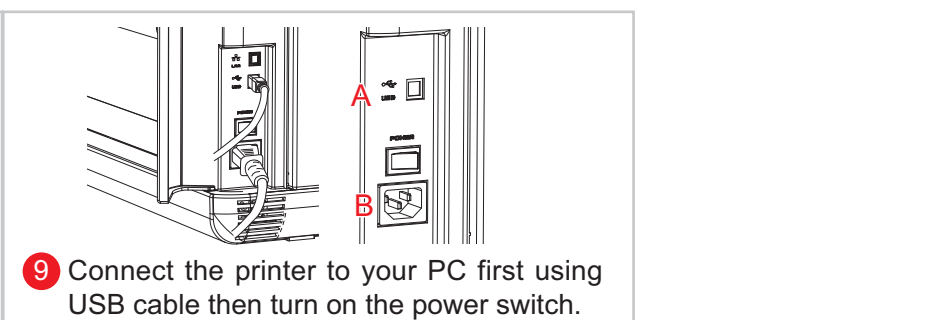
**6** Remove the tapes and cardboard.



**7** Remove the screw and plastic piece under print bed.



**8** Remove the drip tray fixing tapes.



**9** Connect the printer to your PC first using USB cable then turn on the power switch.

**Materials:** Packing supports x2, Cable tie x1, Tapes x2

## Initial Settings



da Vinci 2.1 Duo Plus

Next



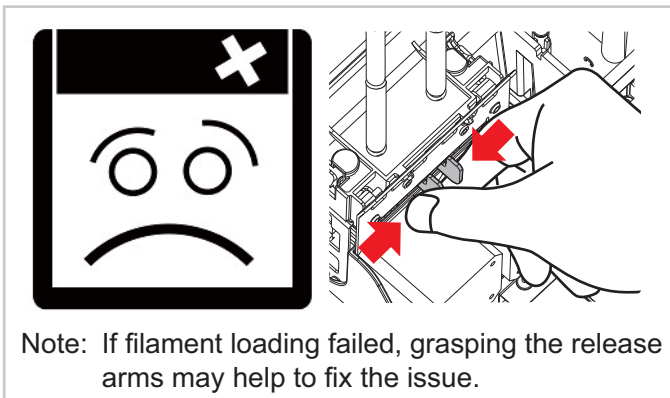
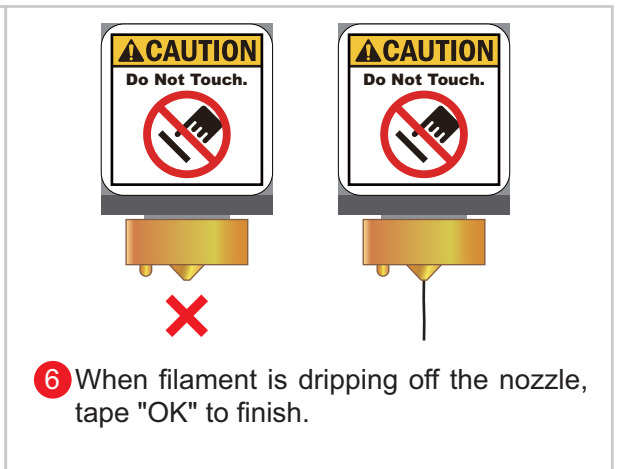
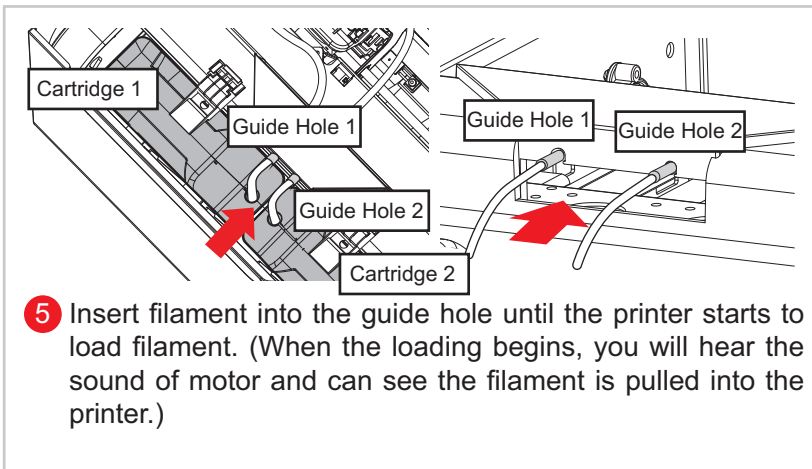
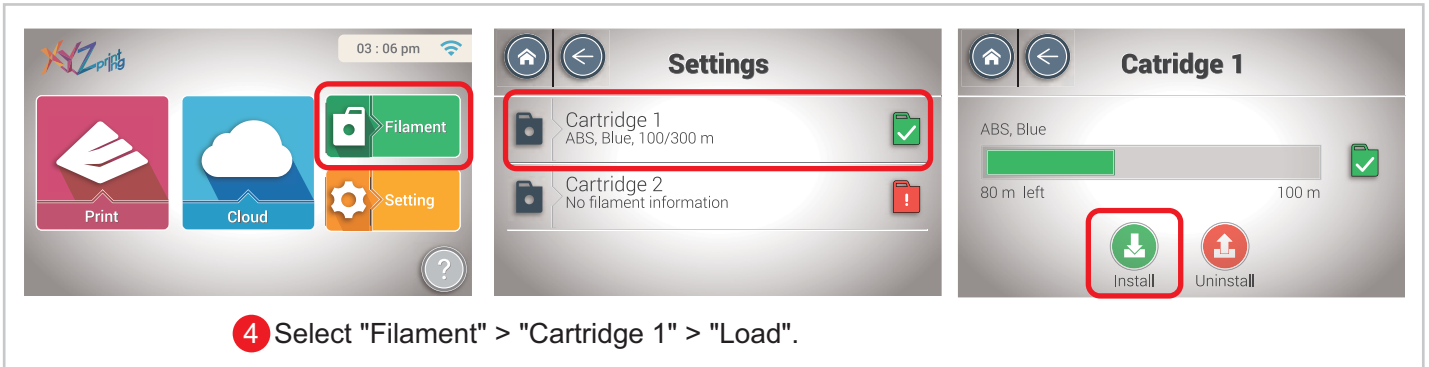
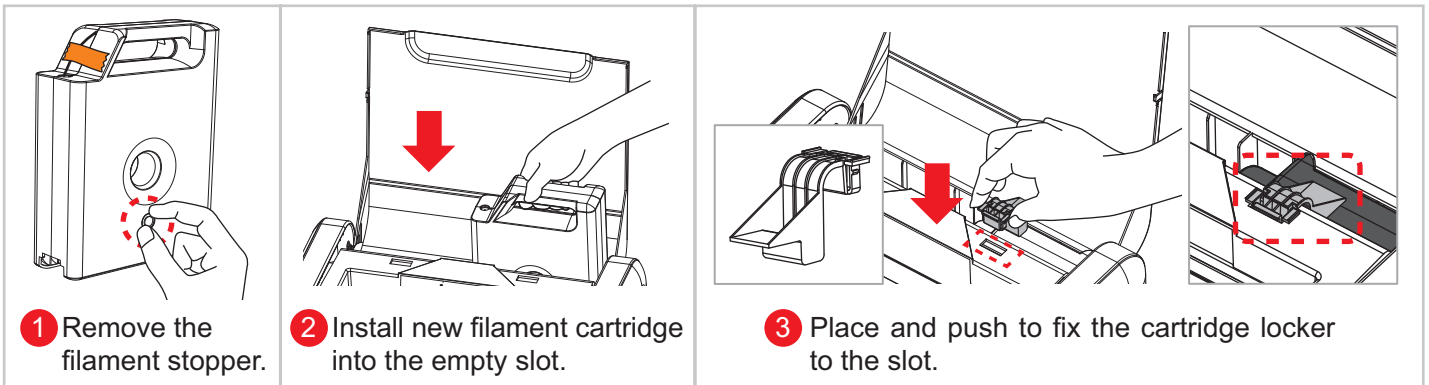
Please choose your language

- English
- Chinese
- Japanese

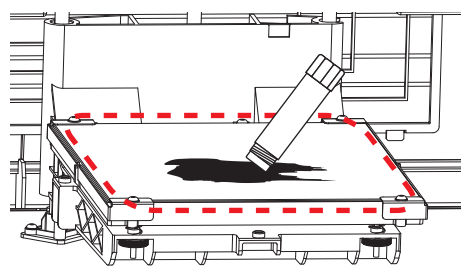
Next

- After powering on the printer for the first time, complete the simple setup as instructed on the screen. Then select language and press "Next" to proceed.

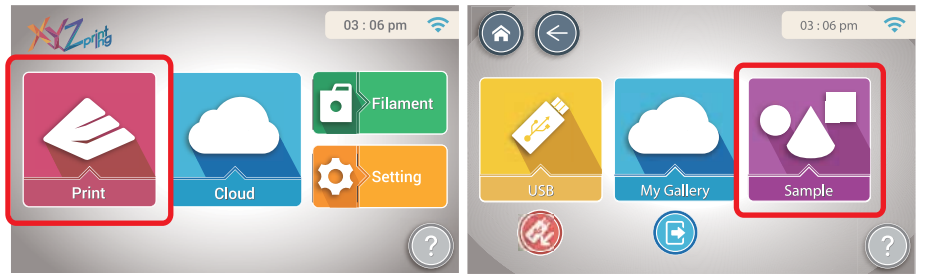
## Install Cartridge



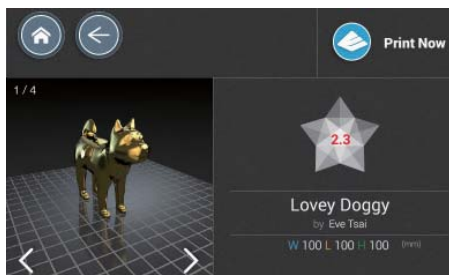
## Sample Print



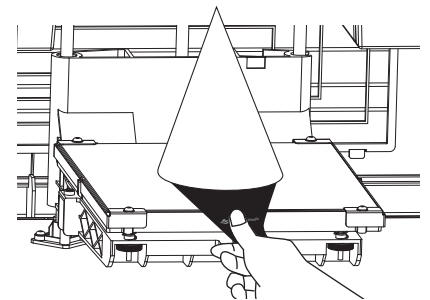
Apply glue to print bed before printing. Glued area depends on the flat measurement or object to be printed.



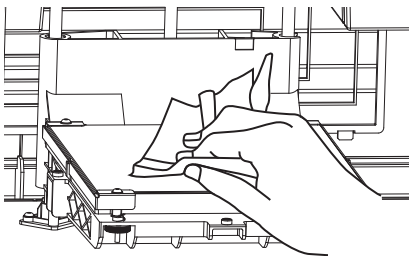
1 Select "Print" > "Sample" on the screen.



2 Select a sample to print, and tap "Print".



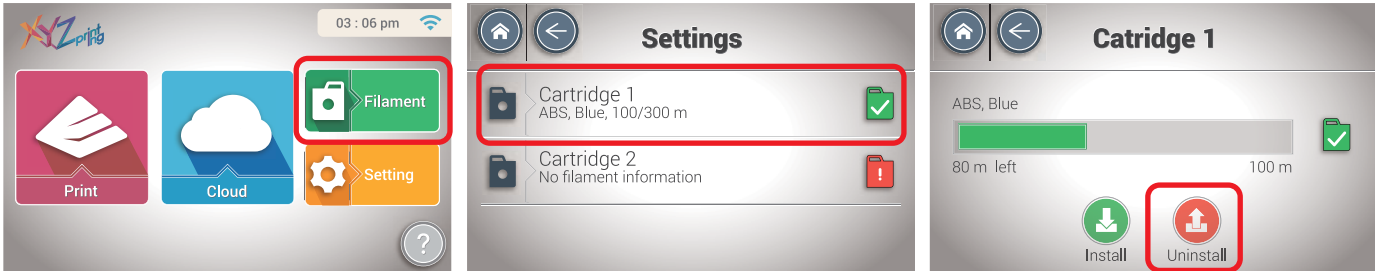
3 After the printing is completed and the print bed became cool, use a scraper to take out the object.



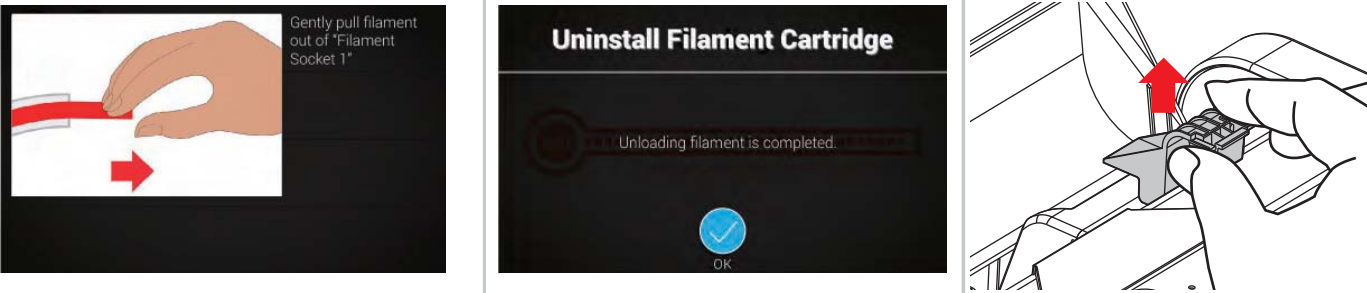
4 Finally use a damp cloth to clean the print bed.

## Unload filament

Note: Please always complete the procedure for "FILAMENT UNLOADING" before changing a new cartridge. Never cut off the filament from the extruder to prevent extruders from clogged.



1 Select "Filament" > "Cartridge1" (or "Cartridge 2") > "Uninstall" on the screen.



2 Gently pull filament out of "Filament Socket 1".

2 Filament is unloaded from extruder automatically. Pull filament out from the guide hole when prompted.

3 Uninstall Filament Cartridge

Unloading filament is completed.

OK

4 Remove cartridge locker and the cartridge.

## important safety Instruction



The maintenance tools provided should be only handled by an adult. Please keep tools away from children. Incorrect handling or maintenance of the printer may cause damage to the product or personal injury.

## Information and usage of the advanced maintenance tools



### ■ Scraper

Scraper is used to remove printed object from print bed when printing finished.  
(Caution: Do not remove the printed object while the print bed is hot.)



### ■ Cleaning Wire

Cleaning wire is used to remove the filament left in the path inside the clogged nozzle when the moiten filament has affect printing quality.  
(Caution: Print bed may be hot during cleaning, please keep away from the platform to avoid personal injury.)  
When cleaning the print nozzle, gear or filament path please ensure to keep hands clear of the print bed which may be hot.



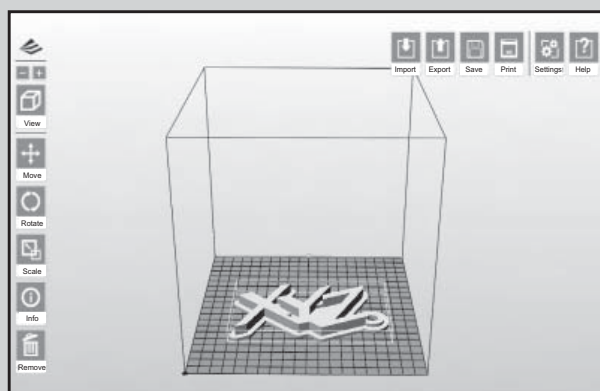
### ■ Copper Brush

Cooper brush is used to clean and remove moiten filament left on the tip or surface of the extruder(s) and inside the drive gear. When the printer falls to "Calibrate" consistently, please use the cooper brush to clean and remove the filament pieces from the extruder(s).

## Specifications

| Feature                  | da Vinci 2.1 Duo Plus 3D Printer  |
|--------------------------|---|
| Print Technology         | Fused Filament Fabrication(FFF)   |
| Print Head               | Dual Head   |
| Build Volume (W x D x H) | 15 x 20 x 20 cm   |
| Layer Resolution Setting | Standard 200 microns<br>Speed 300 microns<br>Ultra fast 400 microns<br>Custom 100-400 microns |
| Filament Diameter        | 1.75 mm   |
| Nozzle Diameter          | 0.4 mm  |
| AC Input                 | 100-240V, 50~60Hz   |
| Connectivity             | USB 2.0 x1<br>WiFi<br>LAN<br>USB Flash Driver   |
| Display                  | Touch Panel   |
| Indicator                | Speaker   |
| Indicator                | Buzzer  |
| Lighting                 | LED   |
| Weight                   | 28.5 Kg   |

## Know about XYZware



For Mac OS and Win8 / 8.1 user or software related topics, please visit following webpage for further information and download the proper XYZware version:  
<http://support.xyzprinting.com/downloads>

「XYZware」 is developed by XYZPrinting Inc. It is designed for everyone with or without modeling skill. You can view the model in various perspectives by importing (\*.stl) file to it. It is also used to print objects from da Vinci 3D printer. XYZWare can be found in the bundle installation disc. To check our latest software updates and further information. Please go to:  
<http://support.xyzprinting.com/manuals>



※**Notice:**

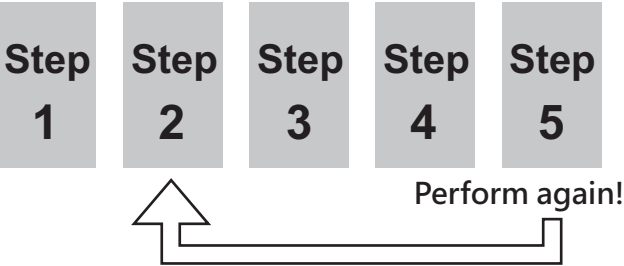
Some instruction and video tutorials might require online registration to obtain authorization.

# Print Bed Adjustment Instructions

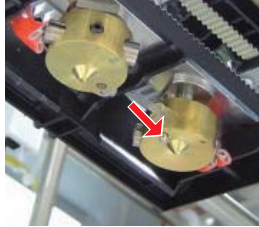


This print bed has been calibrated by our professional technician before shipment. Do not adjust the platform yourself unless necessary, or contact our Technical Consulting : 0809-016-225

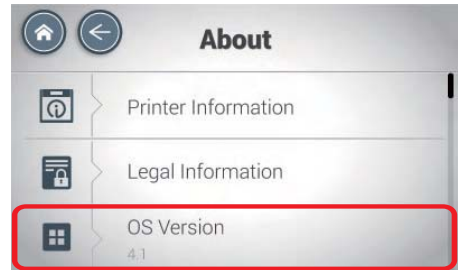
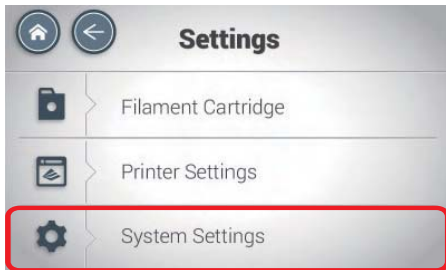
## Print bed adjustment flow chart



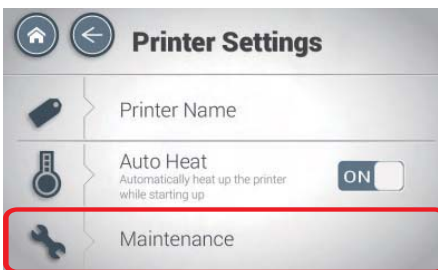
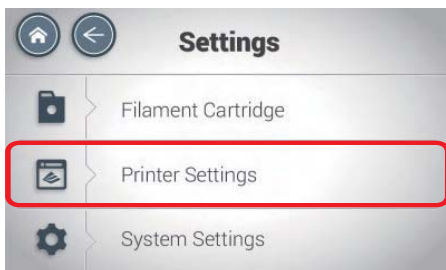
To clean the molted filament from nozzle thoroughly, it is recommended to activate "UNLOAD FILAMENT" function to keep heating the extruder for better cleaning.



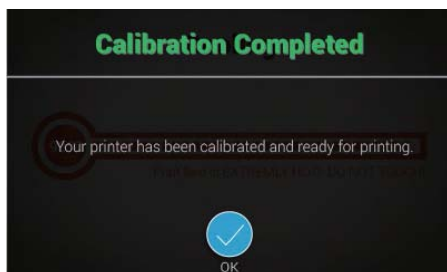
## Instructions on print bed adjustment



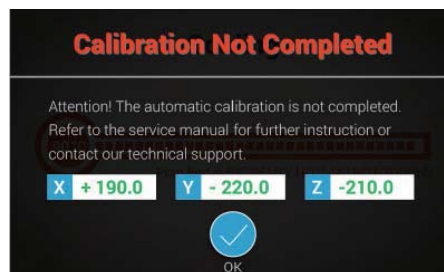
- 1 Check if printer firmware is updated to the latest version:  
Tap "Settings" > "System Settings" > "About" > "Firmware Version" > "OK".



- 2 Perform calibration:  
Select "Settings" > "Printer Settings" > "Maintenance" > "Calibrate Print Bed" > "OK".



(Calibration Completed)



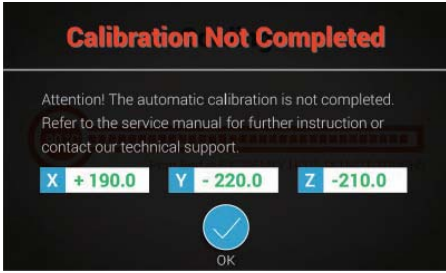
(Calibration Not Completed)

- 3 I. If **ADJUST SUCCESS** is shown.  
→The printer does not need adjustment and press OK to exit.  
II. If **ADJUST FAIL** is shown.  
→The printer needs adjustment, refer to the values shown.

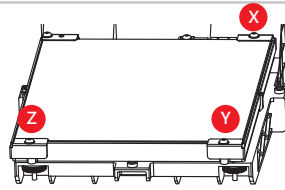


**Note:** During the measurement process, the print bed and print module will be heated. Care should be taken during operation!

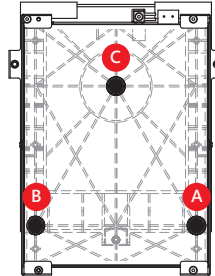




4 Refer to the values for adjustment



Location of the measurement points

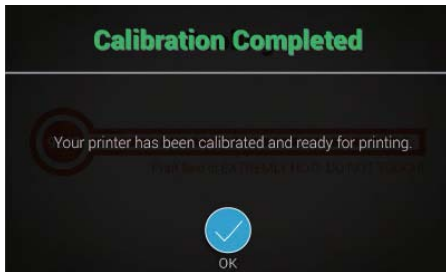
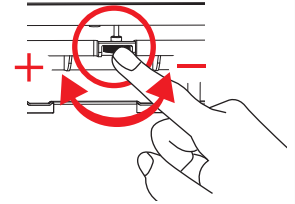


Adjust the location of the screws

- I. Adjust the screw at Point A to reduce the difference between the 1st and the 2nd measurements.
- II. Adjust the screw at Point B based on your evaluation of the results obtained from the previous steps.

View the printer from the front when making adjustment

Rotate the screw to the left to raise the bed (value increases)  
Rotate the screw to the right to lower the bed (value decreases)  
Each turn leads to a change of 50 to the value shown



5 After the adjustment is finished, perform step 2. Wait until **ADJUST SUCCESS** is shown and press OK to complete calibration.

### ✘ Reminder

If the value shown is always **999,999,999**, follow the steps below to clean.

- A. Clean the surface of the print head using the copper brush.  
(Clean the contact point between the print head and print bed)
- B. Wipe and clean the measurement points in reference with Figure 4.
- C. Perform the calibration process again.

# Print Bed Adjustment Instructions

For further information and instruction of the service code, please refer to XYZprinting website (<http://support.xyzprinting.com/>) or contact service center for help.

| Service Code | Display Panel Description   |
|--------------|---|
| 0 0 1 0      | Extruder or heated bed higher/lower than maximum/minimum temperature during printing              |
| 0 0 1 1      | Extruder cannot heat to the specified temperature   |
| 0 0 1 3      | Print bed heating error; critical temperature detected  |
| 0 0 1 4      | Extruder(s) heating error; critical temperature detected  |
| 0 0 3 0      | X axis motor failed results moving failed or X axis home sensor failed results home detect failed |
| 0 0 3 1      | Y axis motor failed results moving failed or Y axis home sensor failed results home detect failed |
| 0 0 3 2      | Z axis motor failed results moving failed or Z axis home sensor failed results home detect failed |
| 0 0 4 0      | Memory storage cannot read/write  |
| 0 0 5 0      | Flashrom cannot read/write  |

## FCC Statement

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.

## FCC Radiation Exposure Statement

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 provide with antenna installation instructions and consider removing the no-collocation statement.

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.

## Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.