



XYZprinting 3D Printer

da Vinci Color Quick Guide ENG



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The manual is mainly intended for users to understand how to use the da Vinci Color 3D printer (“da Vinci Color”) correctly. In this manual, users can learn more about the operating tips, application skills and maintenance of the da Vinci Color 3D printer.

For more information on the da Vinci Color 3D printer and the complete XYZprinting product line, please contact your local dealer or visit the official website of XYZprinting: <http://www.xyzprinting.com>.

ENG : Read this user manual in the SD or USB Card before using your printer.

DEU : Lesen Sie vor der Benutzung Ihres Druckers diese Bedienungsanleitung auf der SD- oder USB-Karte.

ESP : Lea primero- La información regulatoria Lea el documento en se encuentra en la tarjeta SD o USB antes de utilizar la impresora.

FRA : Veuillez lire ce manuel d'utilisation dans la carte SD ou USB avant d'utiliser votre imprimante.

ITA : Prima di utilizzare la stampante leggere il Manuale d'uso della scheda SD o del dispositivo USB.



HD23FC1X071



CHI 您可以透過XYZmaker對列印機韌體及軟體進行手動更新，建議您初次使用列印機時，先利用網路連線執行乙次手動更新以獲得最新資源。

ZH 您可以透過XYZmaker對打印機韌體及軟體進行手動更新，建議您初次使用打印機時，先利用網路連線執行几次手動更新以獲得最新資源。

ENG You may use XYZmaker 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.

DEU Sie können mit XYZmaker manuelle Aktualisierungen der Drucker-Firmware und -Software starten. Wenn Sie den Drucker das erste Mal benutzen, sollten Sie eine Internetverbindung herstellen und die manuelle Aktualisierung zum Erhalt der aktuellsten Ressourcen einmal ausführen.

FRA Vous pouvez utiliser XYZmaker pour lancer des mises à jour manuelles du logiciel et du firmware de l'imprimante. En cas d'utilisation de l'imprimante pour la première fois, nous vous conseillons de vous connecter à Internet et d'effectuer une mise à jour manuelle une fois pour obtenir les dernières ressources.

ITA È possibile utilizzare XYZmaker per avviare l'aggiornamento manuale di firmware e software della stampante. Quando si utilizza la stampante per la prima volta, si raccomanda di eseguire il collegamento ad Internet e di eseguire una volta l'aggiornamento manuale per ottenere le risorse più aggiornate.

ESP Puede utilizar XYZmaker para iniciar actualizaciones manuales en el firmware y software de la impresora. Cuando utilice la impresora por primera vez, le recomendamos conectarse a Internet y realizar la actualización manual una vez para obtener los recursos más recientes.

POR Você pode usar o XYZmaker para iniciar atualizações manuais para o firmware da impressora e software. Ao utilizar a impressora pela primeira vez, recomendamos conectar à Internet e realizar atualização manual uma vez para obter os recursos mais recentes.

JPN 本機での印刷の前に、お使いのPCと本機をUSB接続し、XYZmakerをインストールし、「情報」ボタンをクリック、「ファームウェアアップグレード」をクリックして最新版のファームウェアに本機をアップグレードしてください。

KOR XYZmaker를 사용하여 프린터 펌웨어 및 소프트웨어의 수동 업데이트를 시작할 수 있습니다. 처음으로 프린터를 사용할 경우, 인터넷에 연결한 후 수동으로 업데이트하여 최신 리소스를 획득할 것을 권장합니다.

THA คุณสามารถใช้ XYZ maker เพื่อการปรับปรุงเฟิร์มแวร์และซอฟต์แวร์ของเครื่องพิมพ์ เมื่อเริ่มใช้งานเครื่องพิมพ์เป็นครั้งแรก เราขอแนะนำให้คุณเชื่อมต่ออินเทอร์เน็ต และทำการอัปเดตด้วยตนเองเพื่อขอรับข้อมูลล่าสุด

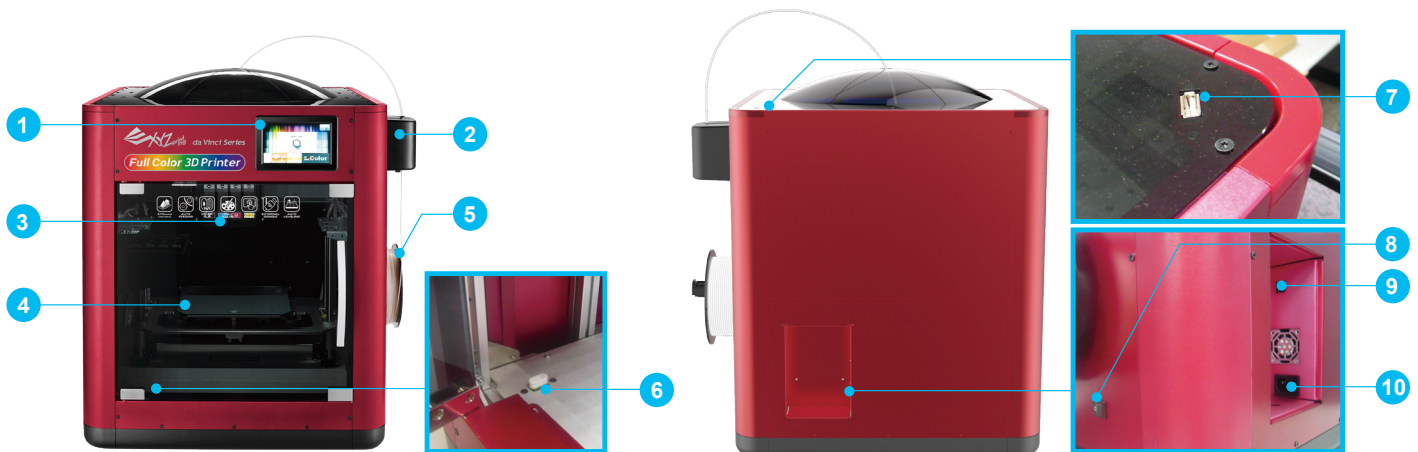
Important Safety Precautions



- Do not move the machine by yourself as it is heavy.
- Do not place the printer in a dusty, humid or outdoor environment.
- Do not place the printer on a soft or tilted surface. Otherwise, the machine will fall / flip over and become damaged or cause personal injury.
- Do not leave the product or power cord to unattended children. Otherwise, personal injury or electric shock might occur.
- Use the provided power cord. Otherwise, incorrect grounding might lead to damage.
- Do not place any liquid container on top of the product. Otherwise, overflow or spill might go into the machine and pose the risks of danger or safety concern.
- Do not wipe the printer with alcohol or flammable chemicals. Otherwise, danger might occur.
- Do not move the machine when it's powered on.
- Do not reach into the machine with your hands during operation. Otherwise, risks of impact from moving printing parts or burn from high temperature might occur.
- The machine becomes hot during operation and thus run in high temperature. Do not touch or replace parts when they are not cooled down.
- After startup, the parts in the machine will heat up or move depending on the user's instructions. During product operation, do not touch or block the operation of the parts.
- Weak odors may be generated during the printing process. We recommend working in a well-ventilated and open area to ensure operational comfort.
- Defect reparation must be carried out according to the contents of this instruction manual. Where the defect cannot be repaired, please contact your printer dealer or the customer service center.

Product exterior

- | | | | |
|-----------------------------|------------------------|---------------------------|---|
| 1. 5 inch color touch panel | 2. Auto-feeding module | 3. Print head | 4. Print bed+EZ removable rubber magnet |
| 5. Filament spool holder | 6. USB Port | 7. USB Port (WiFi dongle) | 8. Power switch |
| 9. USB Port (To PC) | 10. Power jack | | |



Accessory Checklist

▶ Accessory Checklist

- | | |
|-------------------------------|--------------------|
| 1. Quick Guide | 7. Top Cover |
| 2. USB drive | 8. Guide Tube |
| 3. 3D Color-inkjet PLA | 9. PC Mylar x 2 |
| 4. Power cord | 10. Mask Tape |
| 5. USB cable | 11. WiFi Dongle |
| 6. EZ Removable Rubber Magnet | 12. Pair of gloves |

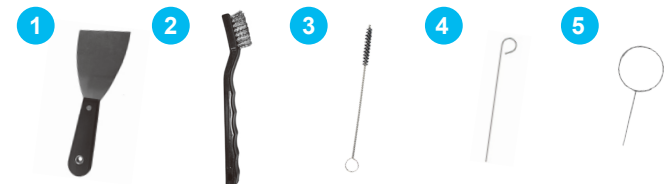


▶ Precautions and Instructions of Maintenance Tools



The following tools are intended for use under the guidance or guardianship of an adult only. Do not allow children unfamiliar with the tools to have access to them in case of danger.

- | | |
|------------------------|-----------------------------|
| 1. Scraper | 4. Feed hole cleaning wire |
| 2. Wire brush | 5. Print head cleaning wire |
| 3. Gear cleaning brush | |



- Make sure the maintenance work of the printer is carried out when the print bed has cooled down.
- When printing is completed and the print bed is cooled down to room temperature, the printed object can be removed from the print bed with the scraper.
- Filament residues generated during the course of printing may be stuck on the print head and gears of the printing module. The printing quality and printer operation as well as the measurement of the print bed may be affected. When this happens, clean the printing module with the wire brush.

Specifications

Printing

Printing technology	2D pattern: Inkjet printing 3D structure: Fused filament fabrication (FFF)
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Dimensions and Weight

Dimensions (W*D*H)	600* 581* 640 mm
Net weight	32 Kg
Gross weight	43 Kg

Performance

Printing dimensions (W*D*H)	Mono color printing (without inkjet printing) 200 x 200 x 150 mm Full color printing 185 x 185 x 150 mm
Thickness of printed layer	0.1 mm ~0.4 mm
Alignment precision	X/Y : 0.0125 mm
Auto calibration	Yes
Auto feeding	Yes
Offline standalone printing	Yes

Materials

3D printing materials	3D Color-inkjet PLA, PLA, Tough PLA, PETG
Filament diameter	1.75 mm
Ink type	CMYK cartridge with separate colors

Hardware

Print head diameter	0.4mm
User interface	5" color touch screen
Print bed	Non-heated, removable
Transmission	USB 2.0 drive / USB cable / wireless transmission

Software

User software	XYZmaker
Supported file format	AMF, PLY, OBJ, STL, 3CP
Operating system	Mac OS X 10.10 / 10.11 / 10.12 Windows 7 /8/10 (64-bit) Linux 14.04

Temperature

Machine operating temperature	15-30°C
Cartridge storage temperature	15-35°C
Filament storage temperature	0-38°C

Unpacking



1
Move the printer to a table or platform. (Do not move the printer by yourself as it is heavy.)



2
Remove the plastic wrap and PP.



3
Remove the packaging materials, top cover box, accessory box and plastic cover.



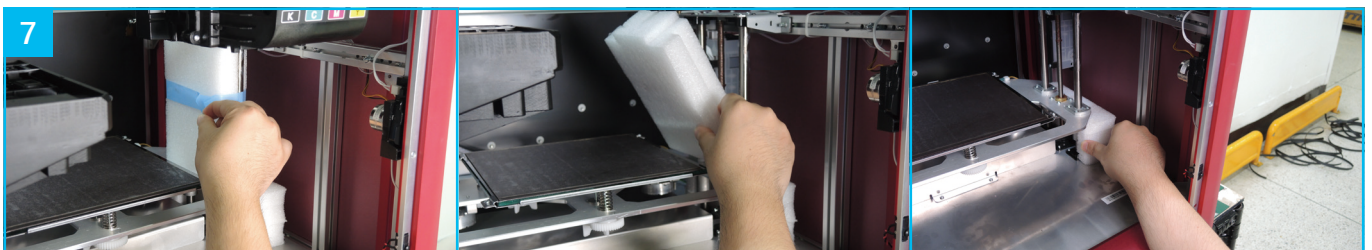
4
Remove the tape on the body (4 in total).



5
Open the front door. Remove the tape from the supporting materials and print bed.

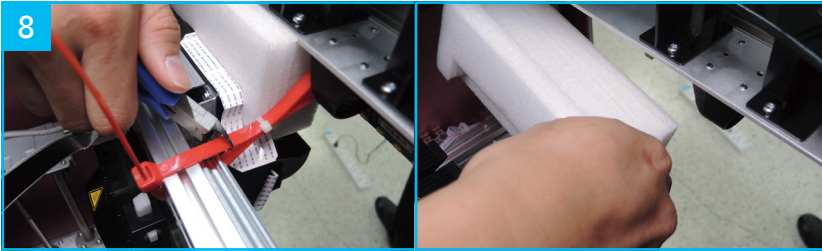


6
Remove the foam on the cartridge holder.

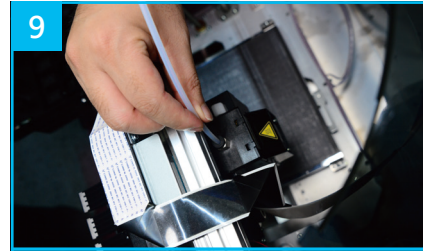


7
Remove the foam next to the guide screws on both sides, and then remove the foam under the print bed.

Unpacking



Remove the cable tie and foam in front and back of the front door.



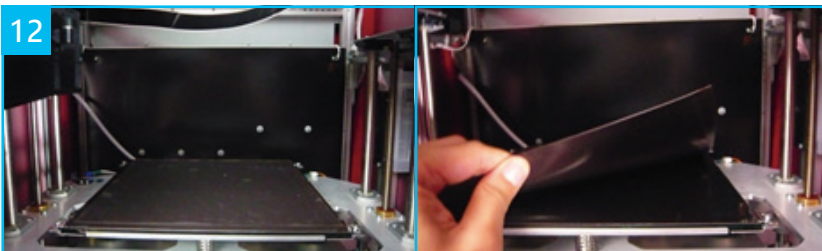
Insert the guide tube through the top cover, and then insert one end into the printing module.



Place the top cover down with the guide tube going through the hole in the top.



Insert the other end of the guide tube into the feed module and secure it tightly.

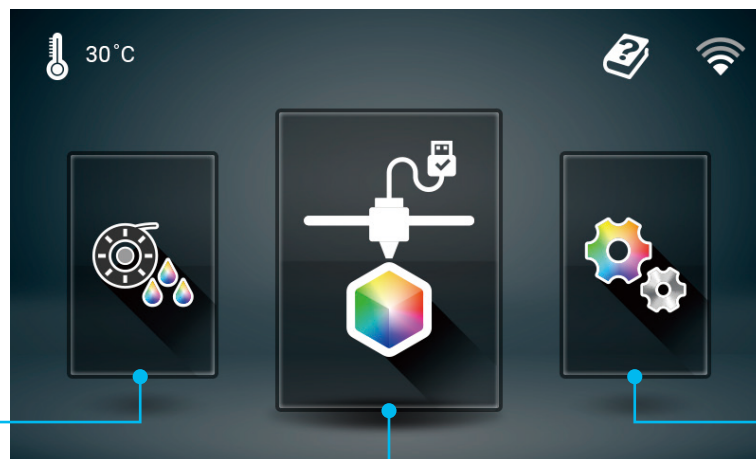


Confirm the rubber magnet is well placed on the print bed.

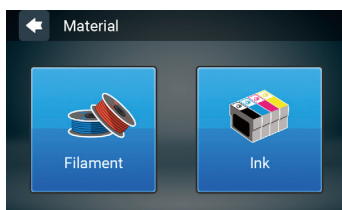
Note

There is a sheet of PC film to rubber magnet with a double sided adhesive, this PC film is replaceable, please replace it when it's dirty or broken.

Main screen

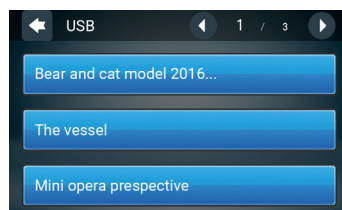


Filament/Ink loading and unloading



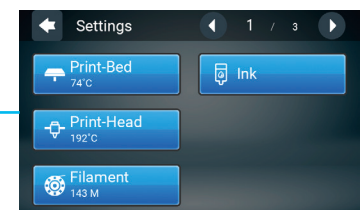
This includes Filament, Ink Load and Unload.

USB Printing Menu

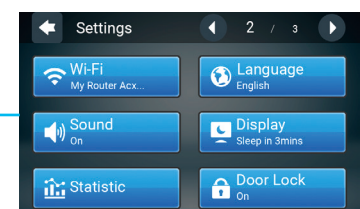


This menu can be used to import files (.3cp) from a USB drive to the machine for printing without a computer.

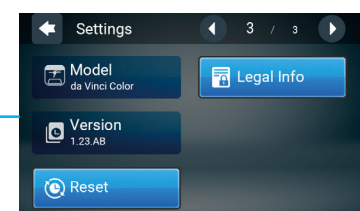
Settings



This includes the functions in Home Page 1: Settings of the Print-Bed, Print-Head, Filament and Ink.



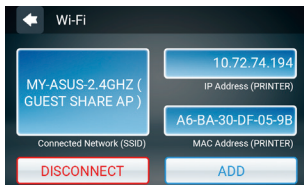
Next page includes WiFi, Sound, Statistics, Language and Display.



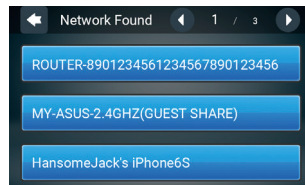
The last page includes Model, Version, Reset and Legal Info.

WiFi setting

Before setting the WiFi, please insert the WiFi dongle into USB port on the top of printer.



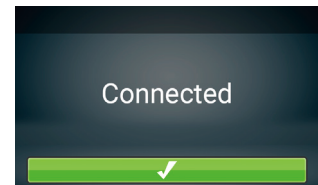
1. Tap ADD and the printer will start to search for available access points.



2. Tap the access point to be used.



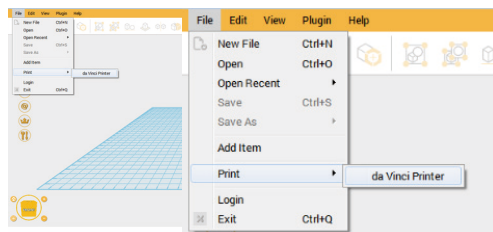
3. Enter the password for the access point.



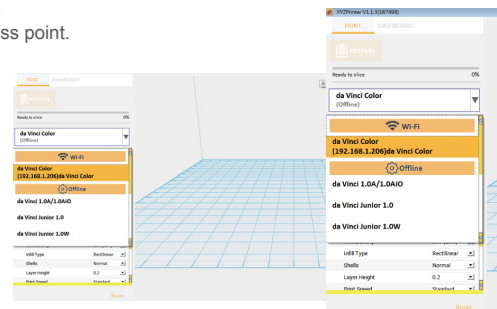
4. Confirm the connection is completed.

Use the XYZmaker to verify if the WiFi connection is established successfully

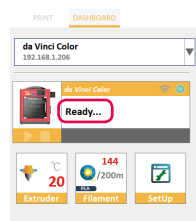
- Use a USB cable to connect the printer to the computer and run the XYZmaker.
- Check if the WiFi function is activated on the computer and connect to the access point.



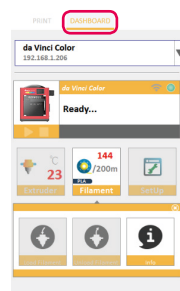
1. Run the XYZmaker. Click on File > Print > da Vinci Printer.



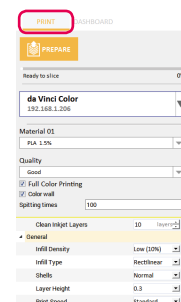
2. Select the printer to be used.



3. When the software displays "READY", the connection is established successfully. Now, you can click on "DASHBOARD" to monitor the printer or "PRINT" to print a file.

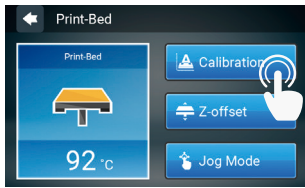


DASHBOARD: Monitor print head temperature, filament used and filament loading / unloading.

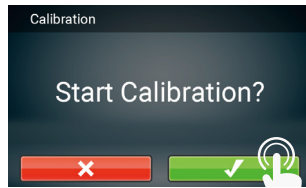


PRINT: Set printing parameters and quality. If only a file conversion is needed, tap "PREPARE".

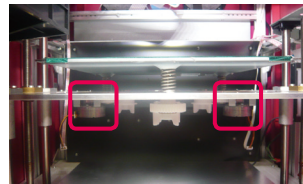
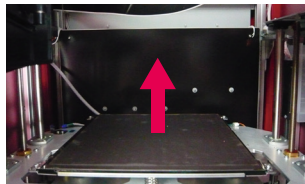
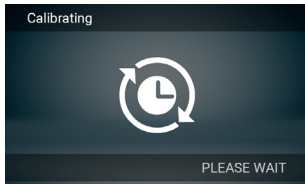
Print bed calibration (leveling)



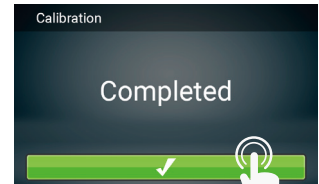
1. Select Calibration.



2. Confirm the operation.

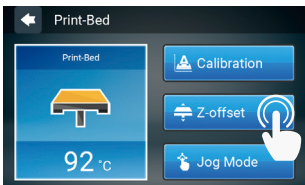


3. Wait while the sensor measures the height of the print bed at three different locations. Once the measurement is complete, the printer will automatically level the print bed.

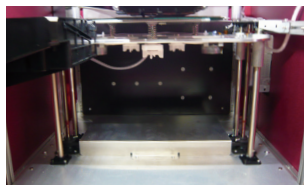


4. After the calibration is successfully completed, tap to confirm.

Z-offset check



1. Tap Z-offset.



2. Move the print head to the center of the print bed. It is recommended that the space between the print head and the print bed just touch and the nozzle can move smoothly on the print bed.



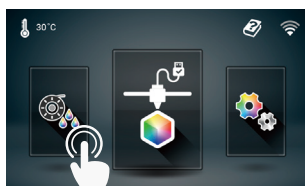
3. Users can tap the icon to higher or lower the print bed, the higher value the bigger distance and vice versa.

Load filaments

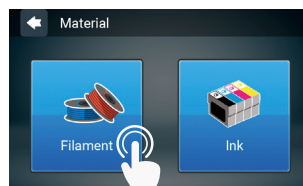


1. Place the filament on the spool holder.

Note Make sure the filament rotates clockwise when pulled.



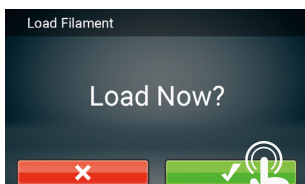
2. Tap Filament Load and Unload in the main screen and select Filament.



3. Tap Filament.



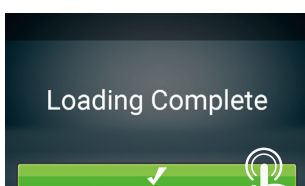
4. Tap Load.



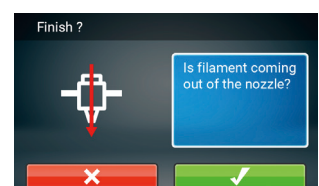
5. Confirm the operation.



6. Insert the filament into the feed module, it will be automatically loaded.



7. Check if the temperature of the print head goes up to 210 °C (Color PLA from XYZprinting) after the filament is loaded. Once the set temperature is reached, the feeding motor will feed the filament along the guide tube into the print head.



8. Once filament has extruded from the print head, the filament will be successfully loaded. Tap the screen to confirm and continue.

Ink Installation



The da Vinci Color uses four color inks which can be replaced separately.

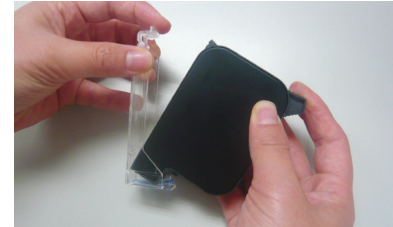
Ink Guidance



1. Prepare several paper towels and the ink cartridge.



2. Unpack the ink cartridge.



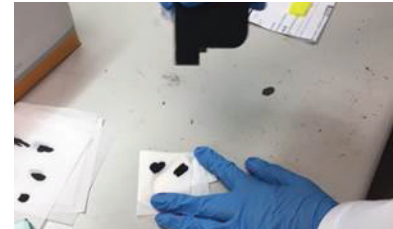
3. Remove the cartridge cover.



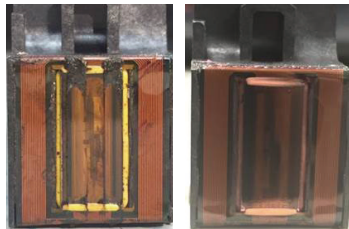
4. Press the cartridge head against the paper towel to transfer some ink onto it.



5. If the ink did not transfer well, try putting the paper towel on the table and hold the ink pressed on the paper towel.

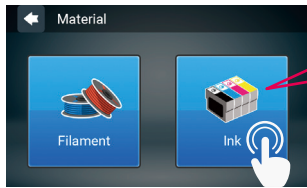


6. Check if the ink transferred to the paper towel displays two straight lines. If so, ink guidance is successfully completed. Once ink guidance is done, install the ink cartridge.

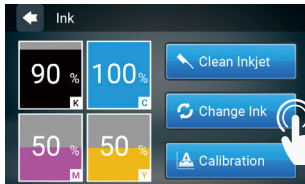
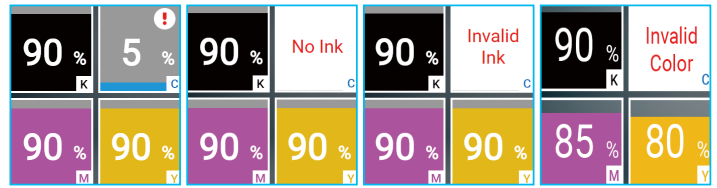


7. If the ink did not transfer well, please wet the paper towel with 75% Alcohol to wipe the ink. After you clean the inkjet, check to see if the ink transferred.

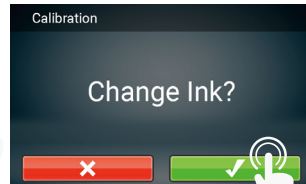
Change Ink



Tap the ink, the screen will show the status of the ink, including "Ink Low", "No Ink", "Invalid Ink", and "Invalid Color"



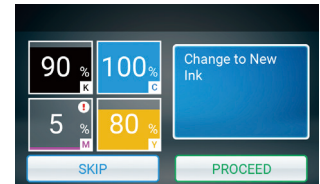
1. Tap Change Ink and tap to confirm.



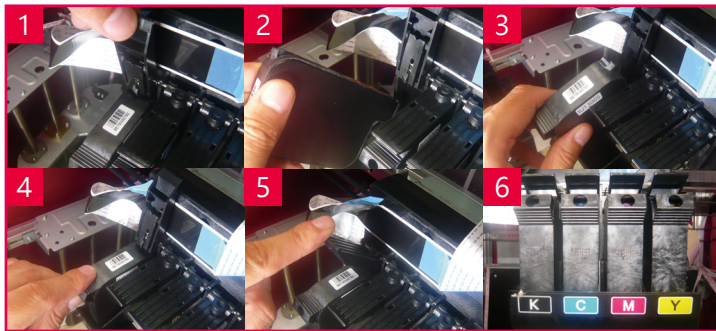
2. Confirm the operation.



3. Wait until the cartridge moves to the center of the print bed, and then change the ink.



4. Tap the PROCEED after you change.

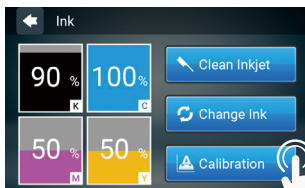


Cartridge Installation

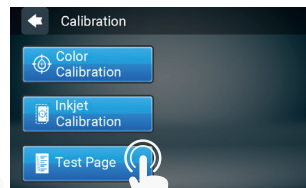
1. Lift up the plate upwards.
2. Take out the cartridge.
3. Put in a new cartridge.
4. Check if the cartridge is placed properly.
5. Press down the plate on top.
6. Check if the order of the ink color is K(Black), C(Cyan), M(Magenta) and Y(Yellow) from left to right.

Print test page

We suggest you print a test page after you install the ink cartridge. Please prepare a sheet of paper.



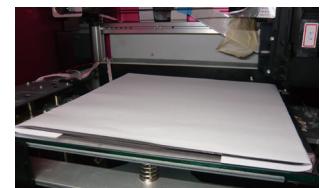
1. Tap Calibration.



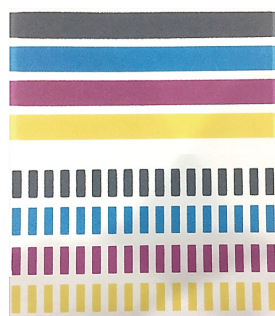
2. Tap Test Page.



3. Fix the paper onto the print bed and then tap PROCEED, the printer will do a test print.



4. Remove the test page and tap PROCEED.



5. Please refer to the photo above, a successful print won't show stripes and lack of ink.

Ink Troubleshooting

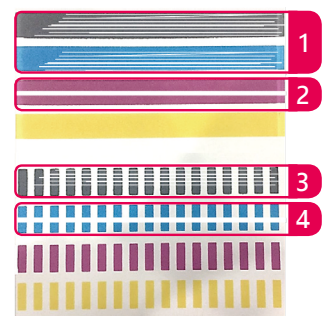
Condition 1&3 :

Follow the description below for ink troubleshooting.

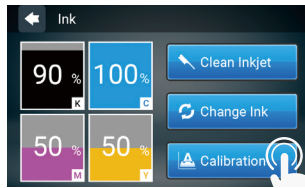
Condition 2&4 :

Please re-install the ink.

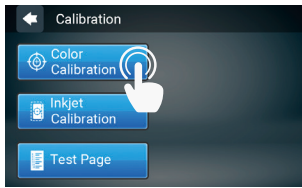
- **Ink cleaning** : please wet the paper towel with 75% alcohol to wipe the ink. After you clean the ink, please print the test page again.
- **Drain the ink** : please refer to C and then print the test page again.
- **Strongly swing the ink** : use paper towel to pack the ink and then swing the ink. If the ink comes out, please print the test page again.



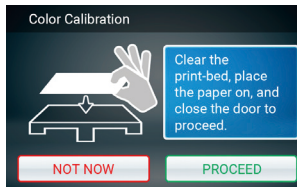
Color calibration



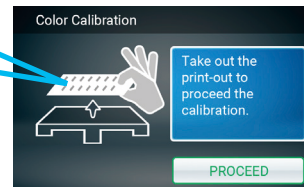
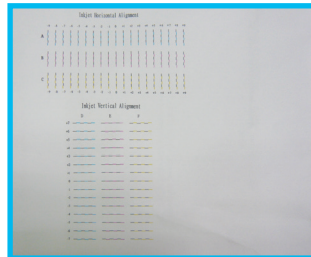
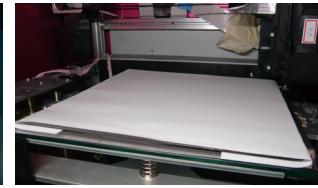
1. Tap Calibration.



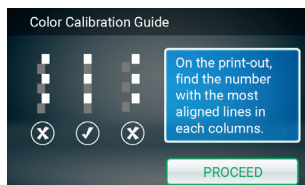
2. Tap Color.



3. Please fix the printing paper onto the print bed.



4. Take out the printed paper and tap PROCEED.



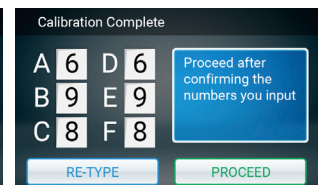
5. Check the printed calibration chart using the on-screen instructions. For each color select the line that is the best aligned with black (K).



6. For horizontal alignment, enter each color's corresponding number. After entering the number, tap PROCEED.

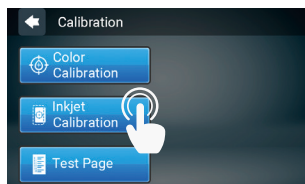


7. For vertical alignment, enter each color's corresponding number. After entering the number, tap PROCEED.

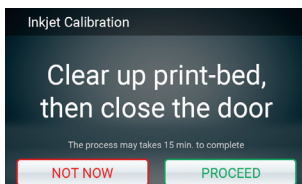


8. Confirm the numbers entered in the boxes and tap PROCEED.

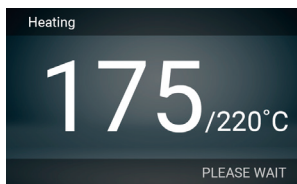
Ink Calibration



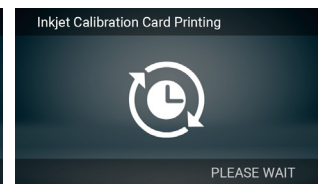
1. Tap Inkjet Calibration.



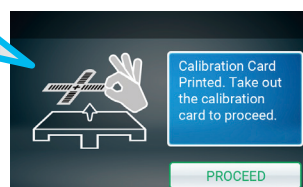
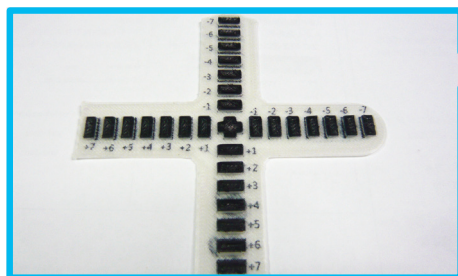
2. Check that the print bed is clear,



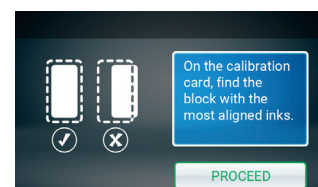
3. The printing operation will start once the print nozzle is warmed up.



4. The printer will print the calibration card automatically. This takes approximately 15 minutes. (Make sure you have loaded the filament.)



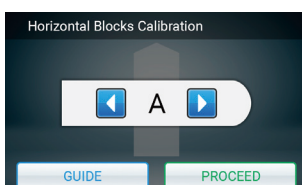
5. After the printing is completed, take out the calibration card.



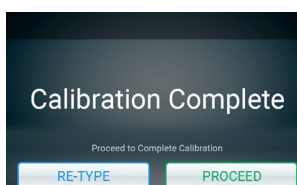
6. Horizontally and vertically, find the box where the ink is the most aligned, and then tap PROCEED.



7. Vertical direction: Enter the number of the box you think the filament and ink align the most, and then tap PROCEED.



8. Horizontal direction: Enter the number of the box you think the filament and ink align the most, and then tap PROCEED.



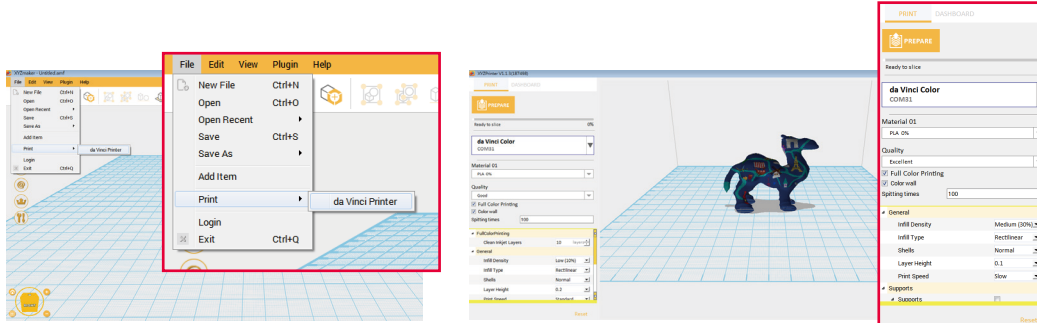
9. After the calibration is completed, tap PROCEED to finish the ink calibration.

Convert and slicing file

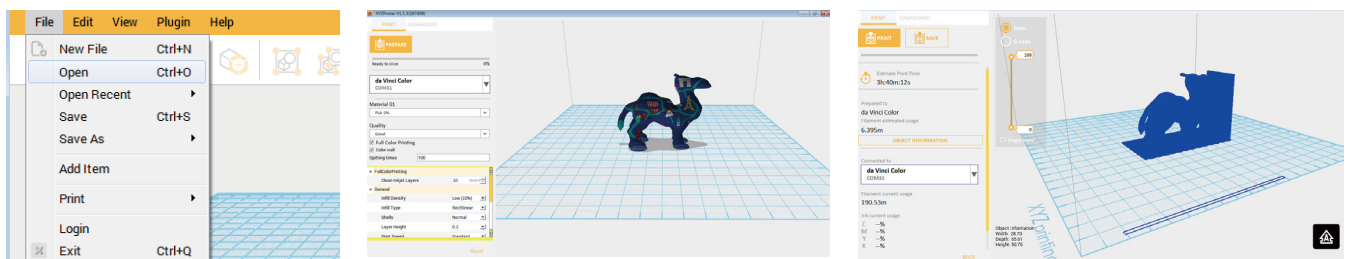
Connect the printer and computer with a USB cable and install the “XYZmaker” on the computer to transfer the files you want to print.

The “XYZmaker” is compatible with operating systems of Windows 7 or higher and Mac OS 10.8 or higher. You can install it by using the included USB drive or downloading the installer from the official XYZprinting website. The user manual of the software can also be downloaded from the official website.

For details, visit the official website: <http://www.xyzprinting.com/>



1. Connect the computer and printer and select da Vinci COLOR.



2. Click on OPEN to select the model file to be printed from the folder. You can adjust the object size, printing position and angle once the file is loaded. To print color objects, save the file to be printed in the obj format and load it in the XYZmaker.

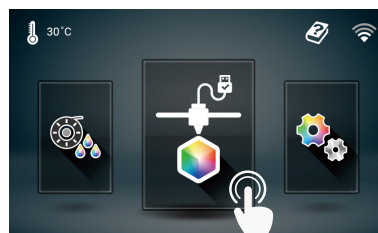
3. You can change related settings to the desired printing result and effect.

4. The Prepare function can convert a obj file to a .3cp file. Once the file is edited and adjusted, click on Print to output the object. The printing operation will start after the file is sliced.

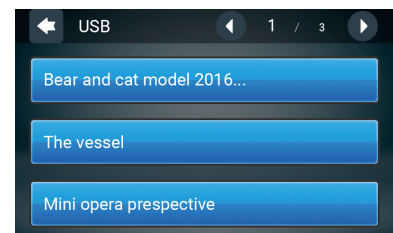
Printing



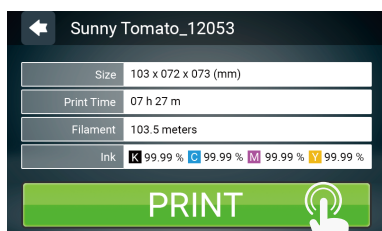
1. Check if the USB drive is plugged to the machine.



2. Tap the USB Printing Menu in the main screen.



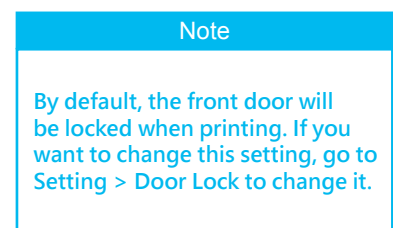
3. Select the file you want to print.



4. Check file information and tap “Print”.



5. The screen will show the print percentage when printing. The Pause, Stop, and Refill are shown below the print percentage.



Problem code and handling

When a problem occurs with the printer, the service code will be displayed on the printer screen and / or the software interface. Please refer to this service code description form for preliminary testing.

Service Code	Symptom	Action
OO11	Print head heated for too long	please check the Flexible flat cable and reboot
OO14	Print head heated issue -- temperature exceed	
OO30	Abnormal--X axis	check the cable of the motor and the sensor, and check the position of the sensor
OO31	Abnormal--Y axis	
OO32	Abnormal--Z axis	
OO50	Internal communication error -- memory error	reboot the printer
OO52	Print head memory error	replace the print head
OO55	inkjet head error	replace the inkjet head
OO56	inkjet data error	reboot the printer

For the latest information on the functionalities and settings of da Vinci Color, refer to the user manual provided or visit XYZprinting official website: www.xyzprinting.com.

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.