Dreamer Series User Manual

This User Manual can guide you to apply Flashforge Dreamer series desktop 3D printer in a correct way. You may have used other series of product of Flashforge though, you also need to read through this Manual, for our Dreamer has several important and exciting brand-new upgrading.

In Part I and Part III, you will learn some fundamental knowledge, how to unpack our out package safely, and will know related accessories and the printing operation interface. From Part IV to Part VI, you will learn how to install software, start your first printing, and the double-color printing.

Flashforge Technology welcomes you to the world of Dreamer. Following this Manual, you will have a best user experience, and you will create an incredible world.

When receiving the printer, you shall notice:

1. Do not take off the yellow stripper on the platform; the yellow stripper is hot-resistant tape, which can obviously enhance the adhesion of the material; otherwise, it will be easy to slip during the printing.

2. Do not take off the packaging wrapped outside the nozzle. The package is fire-resistant ceramic fiber fabric and hot-resistant tape, which can effectively keep the nozzle temperature constant and improve the smoothness and consistency of filament outlet.

Product Parameter

Printer：

Printing technology: hot melt stack forming technology

Operating interface: 3.5 inch full color IPS touch screen

Build size: 230×150×150mm

Printing precision: ＋－0.2

Filament diameter: 1.75mm

Extruder diameter: 0.4mm

Software:

Name of software: Flashprint

Support files: stl、obj

Operating systems: Windows

                 Linux

                 Mac OS

Appearance dimension:

Machine dimension: 485×400×335mm

Package dimension:

Net weight:

Package weight:

Input voltage: 100-240V，50-60Hz

Output voltage: 24V

Data transmission: USB, SD card, Wifi

How does 3D printer work?

Dreamer series desktop 3D printer can print real substance with ABS, PLA and PVA filaments produced by Flashforge. Set the print parameter with Flashprint software of Flashforge for the 3D model designed by yourself, then transmit to 3D printer via USB cable, SD card or Wifi and start to print. Here comes the exciting moment! Let's start our magical journey with 3D printer right away!

A Unpacking Guide

We pack Dreamer carefully before delivery-we hope you open the box after reading this guide carefully.

Please always take care of and use Dreamer.

Dreamer is sensitive to static electricity; please make sure that you have released static electricity on your body before operating Dreamer and trying to conduct any commissioning. Before you open Dreamer and maintain it by yourself, make sure the power supply is shut down, and power cord is cut off.

Warning

1) Dangerous high temperature. There is a heated build platform in the printer, let it cool down before repairing.

2) Movable parts may involve in extrusion and cut damage. Please do not wear gloves or entanglement when operating the printer.

Packing List

Dreamer printer: equipped with filament *2, tools box*1, dual-extruder*1, power cord*1, blue tape*1.

——Filament: one is blue PLA filament, the other is white ABS filament.

——Tools box: tweezers*1, graver*1, SD card*1, washed glue*1, small shovel*1, storage box*1, USB cable*1.

——Blue tape: this is heat-resistance tape, need to be pasted on the platform before printing.

B Firmware Installation

Installing extruders: place the extruder on the guide rail horizontally, and align screw hole of extruder to screw hole at the bottom of guide rail. Take out the screw of extruder and the appropriate socket hex wrench from the storage box, and install the extruder on the guide rail.

Installing spool: place the spool straight in the spool groove, thread the filament from the filament hole of the printer and then insert into the extruder. Filament hole is located at the top of Z-axis.

It is quite important to adjust the platform: if the platform is too far away from the extruder, the model fails to stick on the platform due to lacking of adequate cohesion. If the platform is too close to the extruder, the extruder will touch the platform, and fail to shape a model. What's worse, it may cause the damage to the extruder and the platform.

C Operation Instruction

Turn on the power supply of Dreamer, the screen will light up and show welcome interface.

Then, it comes to the main operation interface.
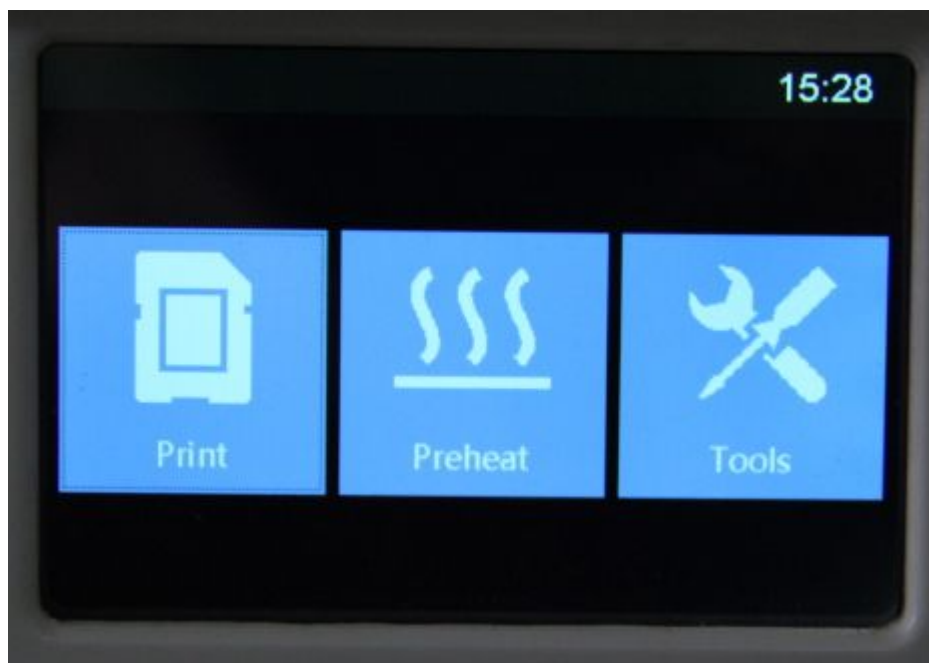
Print: print a model, you may choose to print from the memory of the printer or from SD card

Preheat: heating of right and left extruders and the platform (the black part shows the current state of right and left extruders and the platform)

Tools: Other function settings of Dreamer

Change filament: inlet and outlet filament function of right and left extruders

Leveling: platform adjustment interface

The three knobs under platform are used to raise or lower the platform.

♦ Tightening the knobs (turning them counterclockwise) moves the platform away from the extruder nozzle;

♦ Loosening the knobs (turning them clockwise) moves the platform closer to the extruder nozzle;

♦ Keep approximate 0.3mm between the platform and the nozzle.

Note: you may also visit our official website to watch the video of leveling the platform

Website: www.sz3dp.com

1. When the screen guides to adjust the front left knob under the platform, measure the distance between the platform and the nozzle with your eyes; then, adjust the knobs one by one till the two nozzles are parallel to the platform; you may use a thin paper (A4 paper for example) to test the distance so as to make sure that the paper can slide between the nozzle and the platform and friction can be felt;

2. The adjustment is same as described above when the extruder moves to front right of the platform;

3. After the second adjustment, the extruder will move to the center of the platform. At this moment, make sure the thin paper can slide between the nozzle and the platform and some friction can be felt.
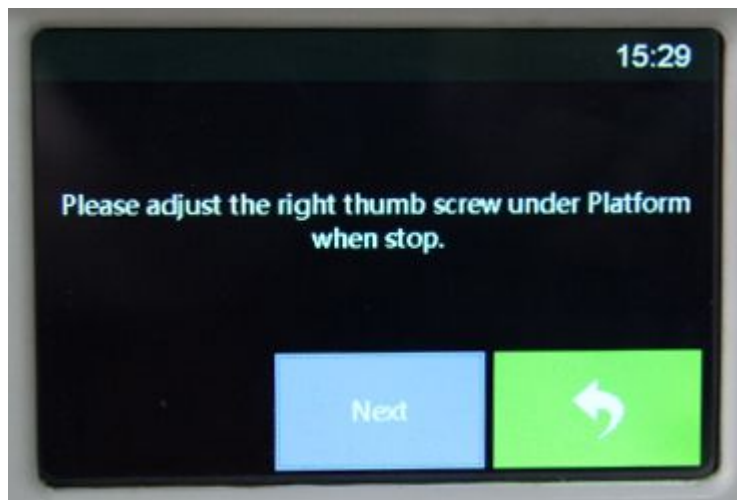
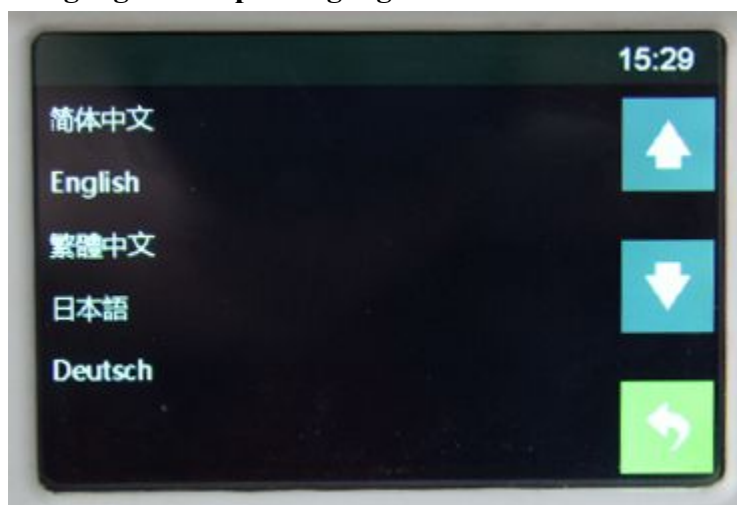**Default: the extruder return back to the initial position**

JOG mode: control the movement of extruder and platform manually
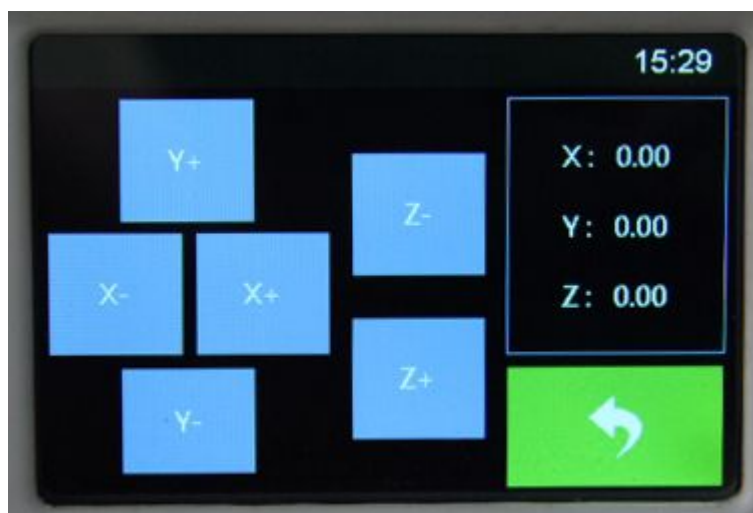
Setting: parameter setting of the printer

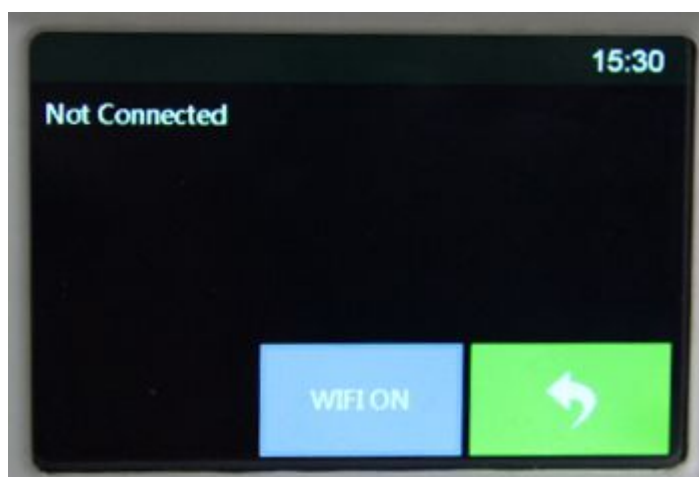**Language: multiple languages can be selected**

Touch calibration: adjust when the tough screen is incorrect

Clock: time setting

Date: date setting

Wifi: turn on or off wifi

Reset to default

D Software Installation

Flashforge is the parameter setting software of Flashforge Dreamer desktop 3D printer.

Software supporting notices:

Process of downloading and installing software:

D1 Software download:

Method 1: Insert SD card sent with the machine into a computer, we have already prepare the latest driver installation package

Method 2: Open a browser and input http://www.sz3dp.com/driver download/dreamer series/ to download the installation package.

D2 Start software installation

1. Uncompress the downloaded RAR, and complete installation according to the instruction.

2. Connect your Dreamer desktop 3D printer with USB cable and make sure that the printer is connected to the computer. Start the software with the shortcut on desk or in the Start Menu.

This software support: Windows XP/Windows 7/Mac 32-bit operating system, Windows 8 or 64-bit system may occur unsure error during the installation process, so we do not suggest you to use. Please install the software after changing your computer or system.

D3 Introduction to software operation:
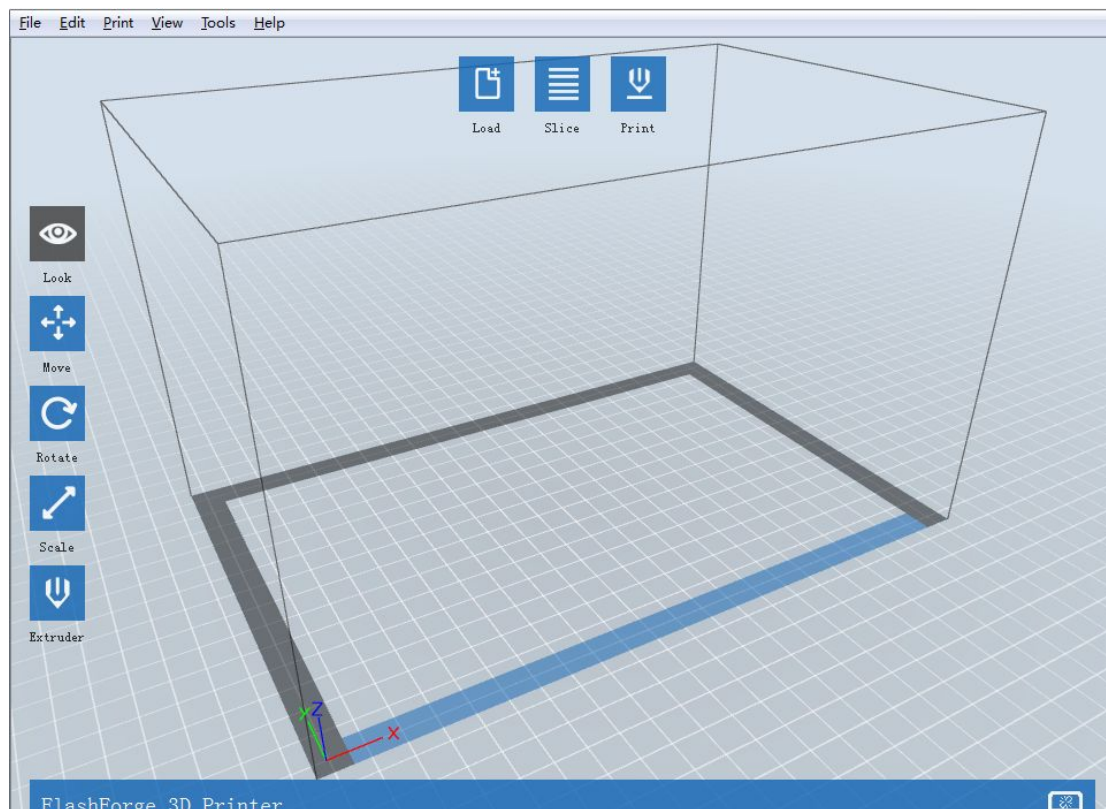
Application of SD card: 1. Upload STL model: (set up a STL model in advance, upload via software)

2. Angle of view: observe the model from different angles. Operation method: click left button to select the model, press the right button to change the angle by turning; viewing the model from different distances. Operation method: turn the mouse wheel to adjust the distance.

3. Movement: when model is selected, you can adjust the position of the model. Generally, we suggest you click "Centering" and "Placing on the bottom panel" to make sure that the model document is within the printing scope and attaching firmly to the platform. Operation method: press the left button of the mouse to move the model; press the right button of the mouse and turn to view the model.

4. Rotate: you can adjust the placing position of the model. Operation method: press the left button of the mouse and move to adjust the position of the model; press the right button of the mouse and rotate to view the model.

5. Scaling: adjust the size of the model. Operation method: click scaling; press the left button of the mouse and move to enlarge or shrink the model; press the right button of the mouse and rotate to view the model.

6. Extruder: Click once again after selecting the extruder, choose to print with left or right extruder.

7. Slice: after the adjustment, choose suitable parameter according to the features of the filament, click OK, transform the current model document into G document ("Slice only", SD card application) or transmit to Dreamer directly and start to print (connect line to print, the printing shall be finished after the slicing is done).

8. Printing: select the generated G document and connect the computer to print.

Use the USB cable: connect the computer and 3D printer

　　1. Use the USB printing cable to insert the socket at the back of the printer and connect the other end to the computer. Turn on the printer and start Flashprint software.

　　2. Click the "printer" menu on top of the software interface, then select the "serial port" in "connection", we may find out that no port connected, you shall click "Re-scan the serial port" to scan and the serial port No. Will pop up. Click it, you can connect the printer.

If the serial port still fails to appear after you re-scan the serial port, it proves that your software is not installed with driver. (Generally, driver will be installed automatically when installing the software)

Open the root directory of software, such as:
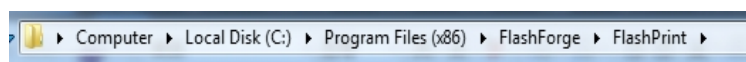
 ▸ Computer ▸ Local Disk (C:) ▸ Program Files (x86) ▸ FlashForge ▸ FlashPrint ▸ open the driver file under this catalogue, search the driver software, and click install (there are 2 install softwares for 64 bit system and 32 bit system respectively, you can choose according to your need).

Set up wireless connection

Wireless network connection: 1. Configure Dreamer wireless network

a.Switch on the printer, tools——set up——WIFI——WIFI ON, and then WIFI is available.

b.Open wireless network connection, and choose Dreamer-LPB connection. (This is the default network of the printer, and no password is needed if the settings haven't been changed)


Step 1: Connect to the network

c. Open the browser and type in 10.10.100.254. Then type in the account *admin* and the password *admin* (this is the default IP, account and password, if the settings haven't been changed).

Step 2: Login in interface

d. Click the mode setting, choose AP+STA mode and save it. Please do not reboot. (Note: if only STA mode is chosen, printer may be not able to connect WIFI with the wrong STA setting)
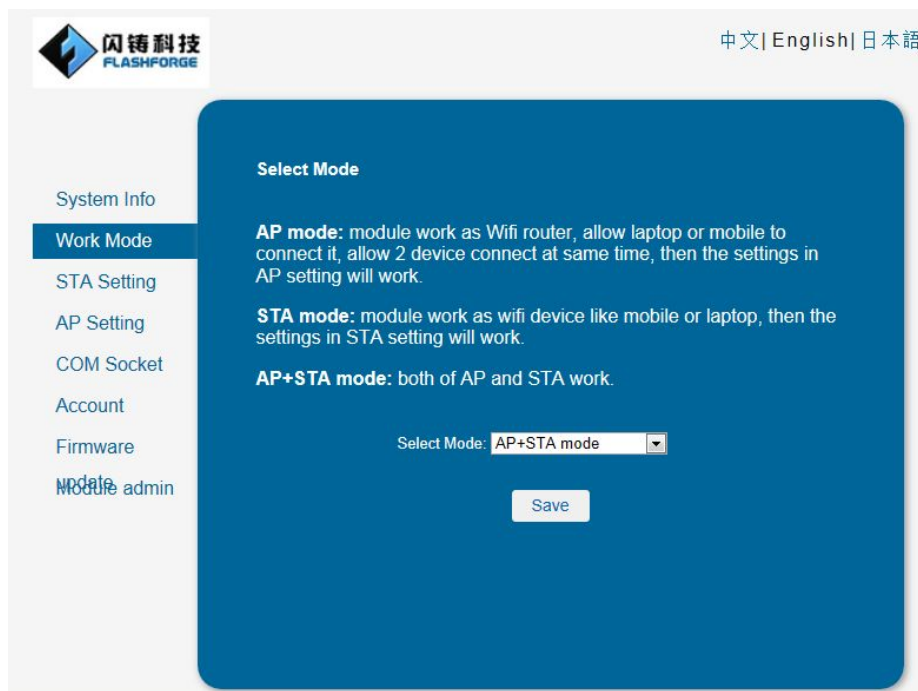
Step 3: Change network mode

e. Open STA setting, click search, choose an appropriate network, type in password and save it. Then reboot the printer.

Step 4: Change STA setting

f. Waiting for five seconds after the reboot, then choose disconnect and try to connect WIFI again. After this, you do not need to connect WIFI in the future if no WIFI setting is changed. If you want to change WIFI setting, please try the same way.

Step 5: The screen after reboot

2. Use Flashprint to connect the printer

STA mode:

1) Switch on printer, tools——settings——WIFI——WIFI ON
2) Write down the IP address and the port number of the printer after WIFI opened
3) Open Flashprint, menu——print——connect, and choose WIFI as the connection method.
4) Type in the IP address and the port number noted just now, and click connect
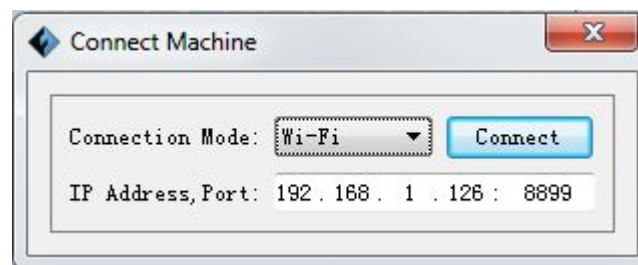
Connection of Flashprint to the printer

AP mode:

1) Switch on printer, tools——settings——WIFI——WIFI ON
2) Open the wireless network connection, and choose Dreamer-LPB
3) Open Flashprint, menu-print-connect, and choose WIFI as the connection

4) Type in IP address and port number (it defaults to 10.10.100.254:8899), and click connect

3. Firmware upgrade

When software needs upgrade, not only the software in the computer but also the firmware in the printer needs to be upgraded. You can do like this:
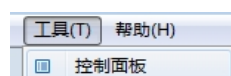
1) Connect printer to computer through USB, and confirm it is connected successfully. Please refer to D 3.8.2

2) Click the tools in the menu，and choose upgrade firmware. See the picture below, please. Click OK in the popup window, then the firmware in the computer is upgraded.
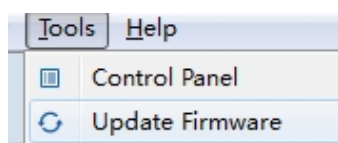

D5　Setting of control panel

1. Heating extruder and platform

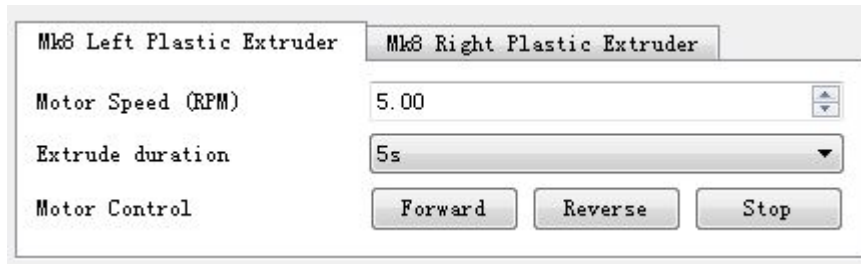After the connection between software and 3D printer are done, click the tools as the picture, choose control panel and then you will see the temperature control interface of extruder. Filling your target temperature in the blank (in general, the respective temperature of extruder and platform is 220℃ and 115℃, and the respective maximum temperature is 230℃ and 120℃). Then you will see the actual temperature on the right is rising, and the diagraph below is changing. This means the extruder or the platform is heating.
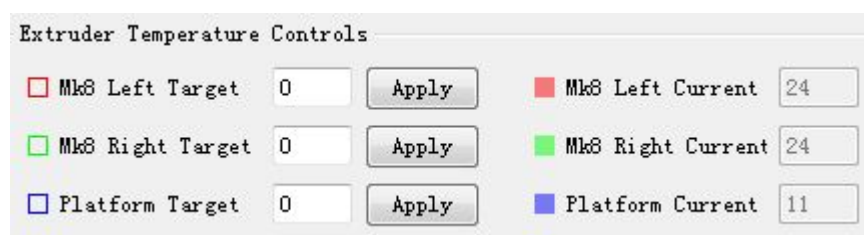

2. Filament inlet and outlet

After the connection between software and 3D printer, open the control panel and you will get a interface as shown in the figure below. Before printing, filaments should be melted in the extruder. Therefore, target temperature of the extruder should be set as 220℃. As the actual temperature reached 220℃, click the clockwise or counterclockwise to put in or take out filaments. In addition, you can control the speed of putting in and taking out filament through changing the motor speed; you can control the time of putting in and taking out filament through changing the lasting time. Touch the filament near the entrance, you can obviously feel its move and this means it works in the right way.

3. Adjusting the position of extruder

After the connection between software and 3D printer, the pointing control interface appears as shown in the diagraph below. You can choose movement precision in the pointing mode, click the arrow, extruder will move as you operate and the distance is the precision you choose. You can set the current position as the original point and the current position of the extruder as the coordinate origin, if extruder moves, it will show the route in the right blank. If you would like to return, click the center button for corresponding direction of X/Y/Z, extruder will return to origin automatically. The speed setting of axis showed as below can change the movement speed of the extruder.
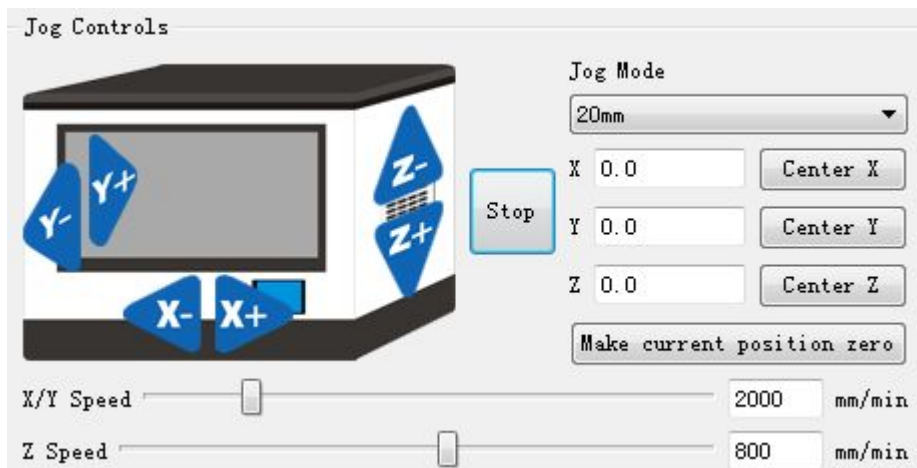
D6 Double-color printing

D7 Suggestion about parameter setting

We suggest to set the speed of space running as 80 and the feed speed as 60 if you use ABS filament; we suggest to set the speed of space running as 100 and the feed speed as 80 if you use PLA filament. You may have to try several times to get the appropriate parameter as different models have different parameter setting.

D8 Update of software

You can use your printer after you finish all the steps above. Then, let's complete the first 3D product in the life.

E Initial Print

1. Draw a 3D model or open browser and type in www.ishare3D.com to download a 3D model which you prefer from 3D model base of Flashforge.

2. Open software of Flashprint, upload the 3D model software downloaded just now.
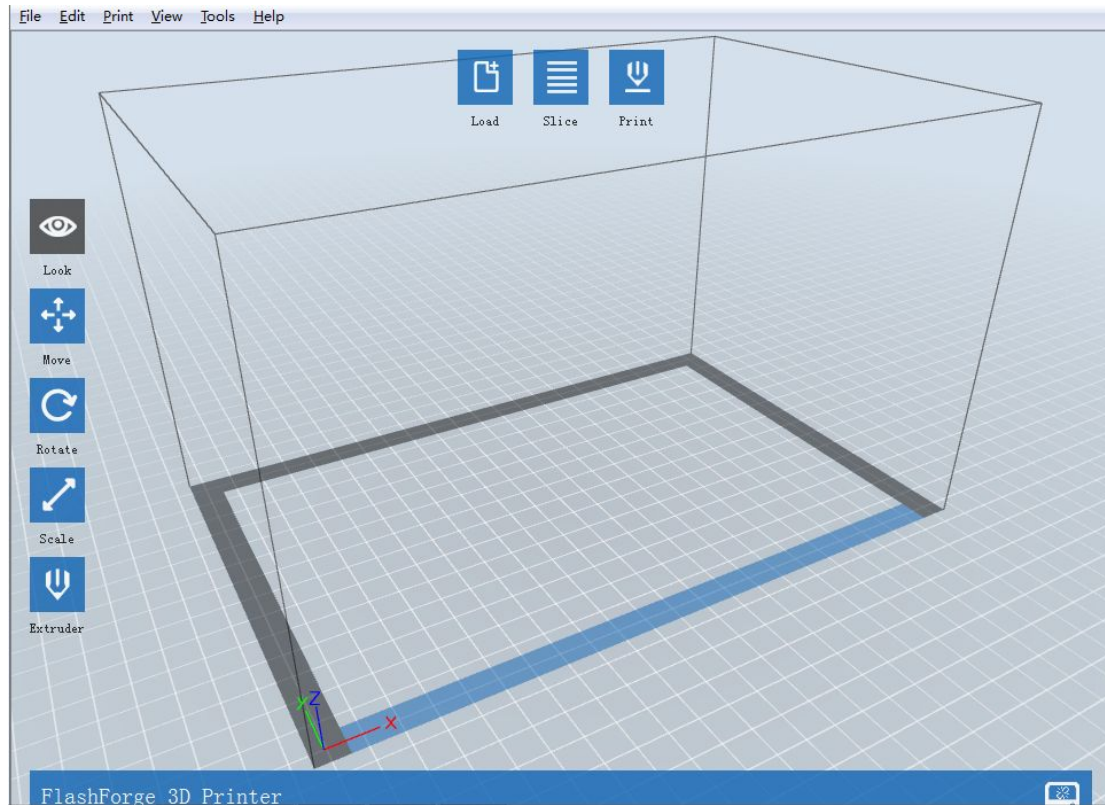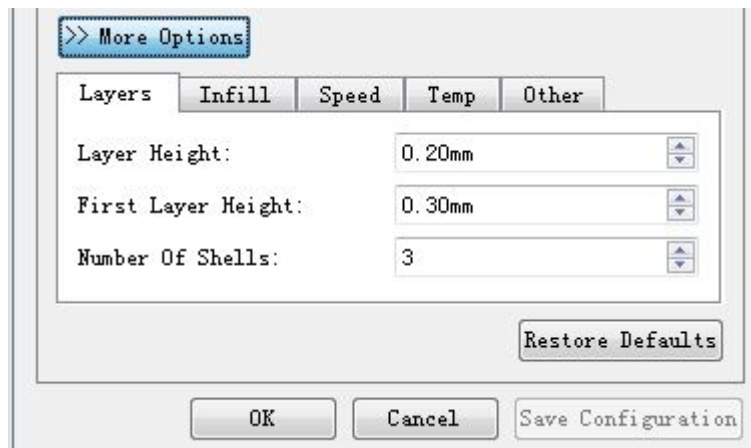

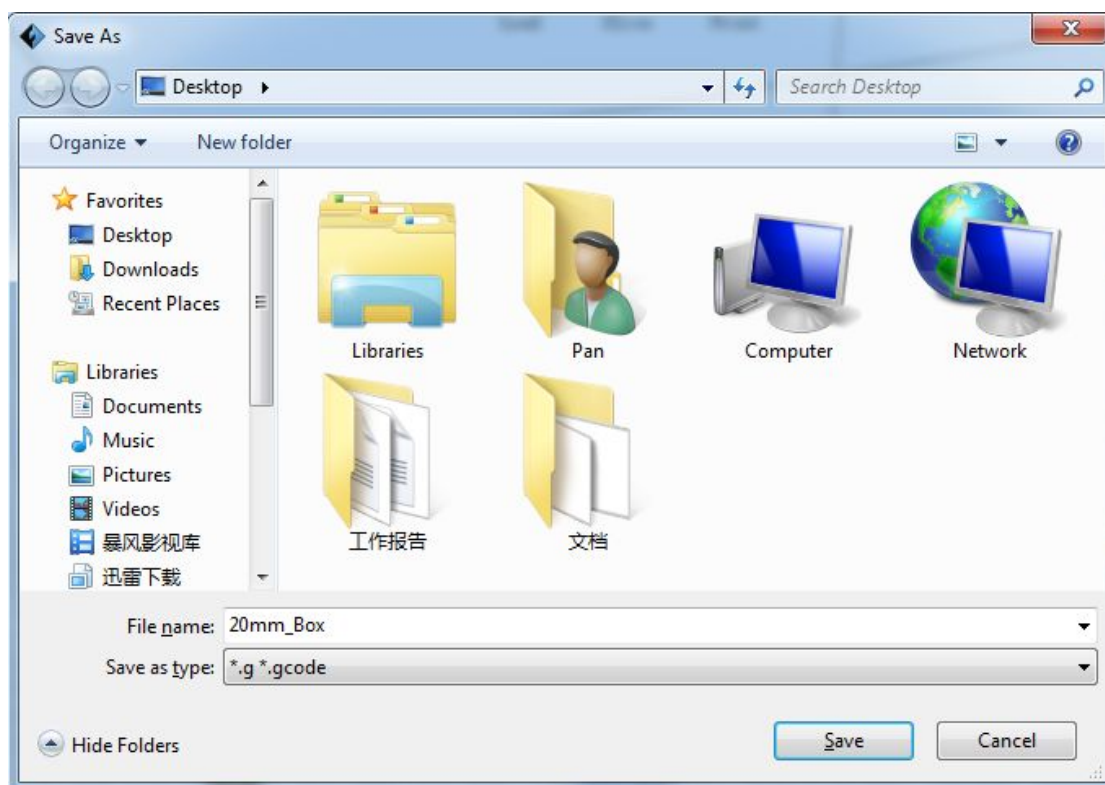3.You can adjust the position of model with the menu on the left. Click slice after the adjustment;
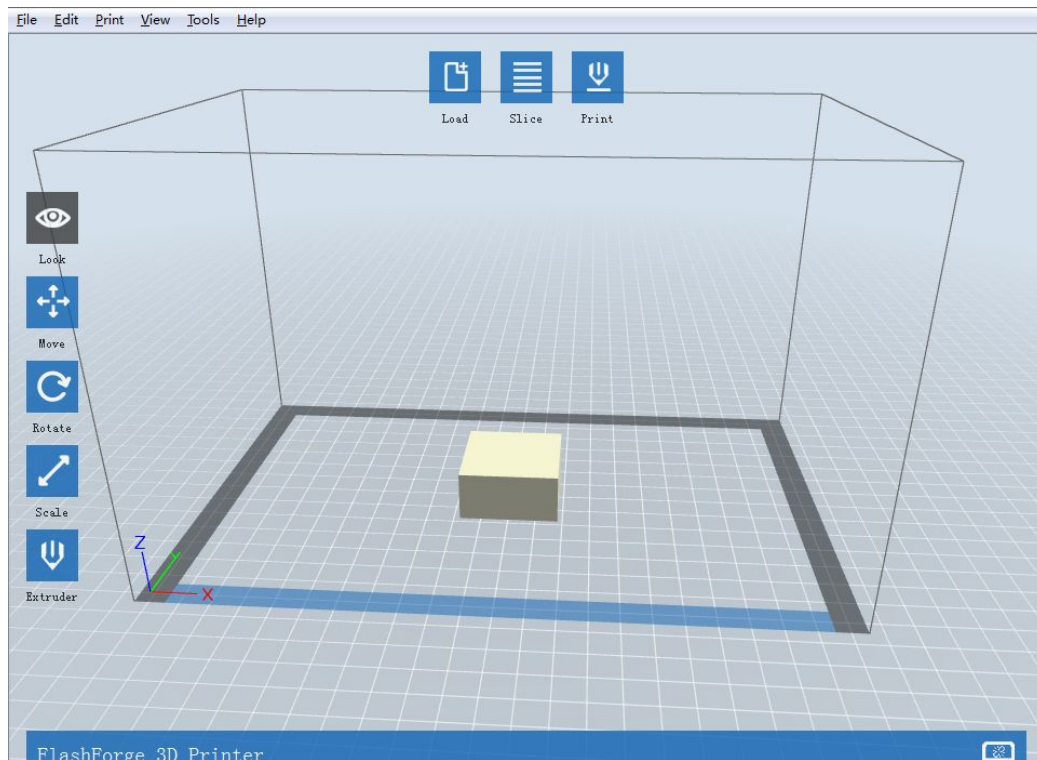
4. After parameter is set, click OK to form slice;
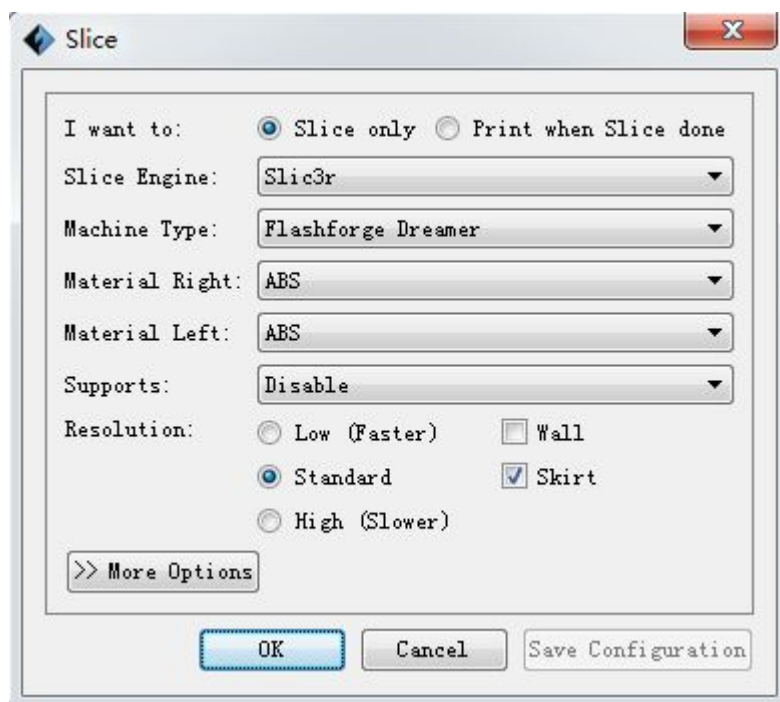
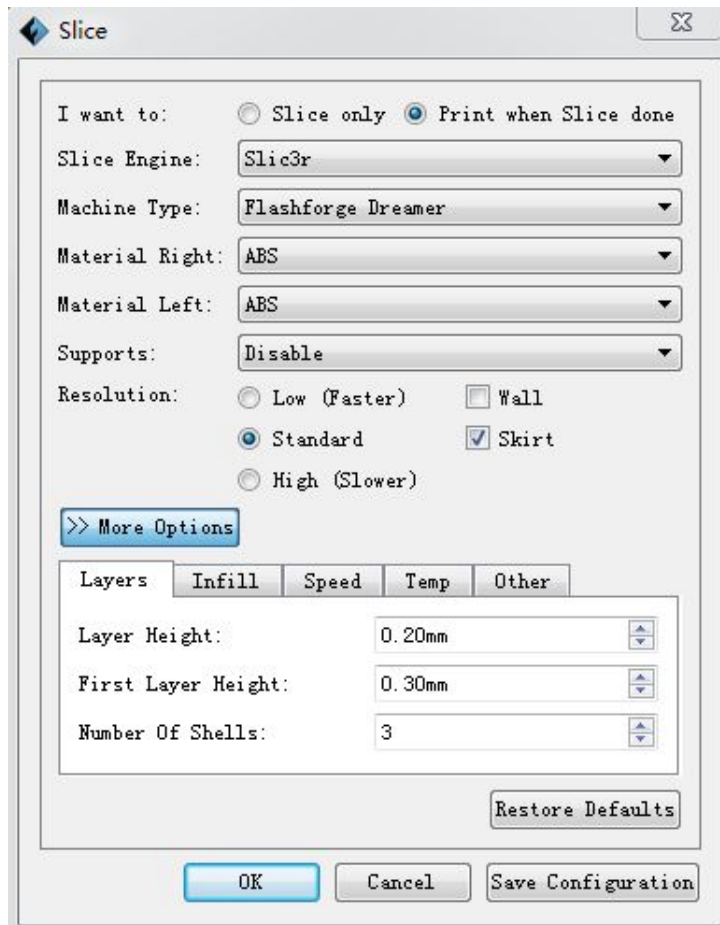5. Click more to define more settings;

6. Choose position to save the printing file, and form 3D file for printing.
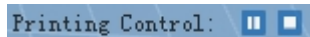

7. Save the Gcode to SD card, and insert SD card to Dreamer. Then, printer is ready to print;

8. If the printer is connected to the computer through USB or WIFI, you can choose print after slicing to print immediately.

9. Pause and terminate printing

   If you want to pause or terminate printing, you can click the icon as showed to
conduct the corresponding operation.

10. Change material when printing

   If the filament is blocked, the color or filament needs to be changed when
printing, you can do like this. Pause print first, then enter control panel and change
filament as introduced in above chapter of "4. Filament inlet and outlet". After that,
click continue.

F Double-color Printing

   If we want a more colorful and complex 3D printing effect, or the model can not stand on the
platform and needs a support, then we need a dual-extruder printer instead of a single-extruder one
to meet the requirement of double-color printing. Now the exciting news is that Dreamer can make
it! Please imagine, will a complex and colorful model that combines two different colors or two
different filaments be more attractive? Then let us introduce the specific operation of double-color
printing.

1. Draw a 3D model diagram, or open the browser and type in www.ishare3D.com to download the 3D model diagram from Flashforge 3D model base. You have to pay attention to tell the model diagraph is single color one or a double-color one when you choose the model, because double-color model consists of two single color models.

2. Open Flashprint software, upload the 3D model file downloaded just now.

3. Use the function button to adjust the position of the model, click slice and then you get the popup window as below;
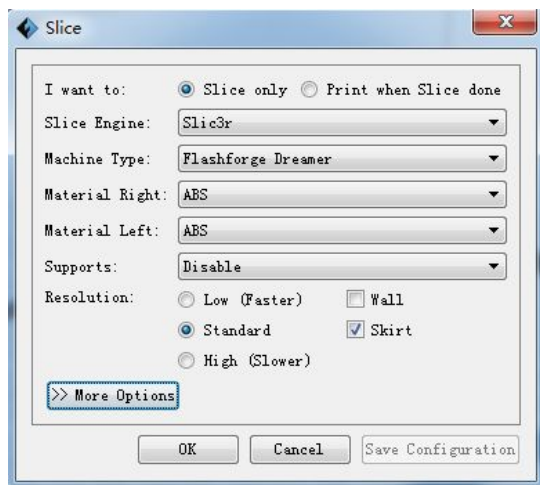
① Double-color printing (without support): choose different printing filaments according to actual requirements and set appropriate printing parameter: click "more options", and set parameter, then click OK to save it.

② Support printing: sometimes we need to print top-heavy model, and at this time, we need support to print well. Click "support" and choose left extruder or right extruder to support, then set parameter and click OK to save it.

4. Prepare the printer, and install the filaments of your requested color and material in the left and right extruders respectively. Copy the G file to SD card, then insert SD card to the printer and start to print. If printer has already connected to computer through USB or WIFI, you can choose "print after cutting" to print the model directly.