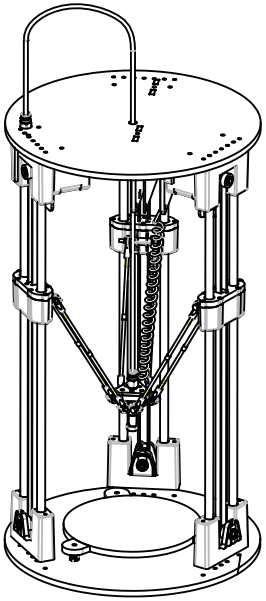
PRINT-RITE™

CoLiDo™ D1315

3D Printer

USER MANUAL



* Carefully and thoroughly read this manual before using

Manufactured by ISO 9001/ 14001 certified plant.

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V1. 32

Chapter 1 Introduction ---- 03

Chapter 2 Safety and Compliance

Safety Alert Symbol ---- 04
Interference of Radio and Television ---- 05

Chapter 3 Specification ---- 06

Chapter 4 Print Principle ---- 07

Chapter 5 Set up CoLiDo Printer

5.1 Unpack Printer ---- 08
5.2 Accessory Checklist ---- 09
5.3 Take out 3D Printer from packing box ---- 10
5.4 Install filament guide tube ---- 11
5.5 Install REPETIER-HOST software ---- 12~15
5.6 REPETIER-HOST software setup ---- 16~18
5.7 Printer Calibration ---- 19~22

Chapter 6 CoLiDo Printer Test Print and change filament

6.1 Load filament and test print ---- 23~26
6.2 Change Filament ---- 27

Chapter 7 Repetier-Host parameter setting and print ---- 28~30

FAQ ---- 31~33

This User Manual is designed to start your journey with CoLiDo Desktop 3D Printer in the right direction.

In Chapter 1~4, you can learn the basic knowledge of CoLiDo Desktop 3D Printer, how to unbox safely, how to assemble correctly. In Chapter 5~7, you can learn how to calibrate the platform, how to print, how to maintain and how to troubleshoot.

Welcome you to the world of CoLiDo Desktop 3D Printer.

Following this manual will help you fully understand the Printer and make amazing products.

In this manual, Safety Alert Symbol will be marked in the start of safety message. The Safety Alert Symbol means potential safety hazards which will possibly harm you or others and cause product or property loss.

Safety Alert Symbol

WARNING: HOT SURFACE, DO NOT TOUCH
Desktop 3D Printer has high temperature when working.
Make sure the Desktop 3D Printer cool down before touching inside.

WARNING: HAZARDOUS MOVING PARTS, KEEP FINGERS AND OTHER BODY PARTS AWAY
The moving parts of Desktop 3D Printer will possibly cause harm. Do not touch the Desktop 3D Printer inside when the printer is working.

WARNING: Make sure stand by Desktop 3D Printer when it working.

CAUTION: Be careful when using Print-Rite unapproved material, which may damage Printer and impact print quality.

CAUTION: Disconnect power plug from power socket during emergency.

CAUTION: Power socket must be located near the Printer and within reach.

CAUTION: Place Desktop 3D Printer in well-ventilated area as it will melt plastic and emit plastic odor when printing.

Interference of Radio and Electromagnetism

The Printer will generate, apply and radiate Radio Frequency Energy. If the Printer is not installed and used in accordance with the manual, it may cause harmful interference to radio communications. However, there is no warranty to the interference if the Printer is installed in a special environment. If the Printer does cause harmful interference to the receiver of radio or television, which can be determined by turning on and turning off the Printer, the user is suggested to adopt below one or more methods to eliminate the interference:

1. Change the orientation and location of the receiving antenna.
2. Increase the distance between the Printer and the receiving device.
3. Connect the Printer and the receiving device separately with two power sockets in different power supply circuit.
4. Get help from the dealer of the Printer or an experienced radio/ TV technician.

Printing

Print Technology: Fused Deposition Modeling
Construction Dimension: Φ130*150mm
Layer Resolution Setting: 0.05~0.4mm
Positional Accuracy: XYZ : 0.011mm

Filament: PLA
Filament Diameter: 1.75mm
Nozzle Diameter: 0.4mm

Mechanical

Frame: Steel + Engineering plastics
Platform: Acrylic with Adhesive tape
XYZ Bearing: Steel
Stepper Motors:
1.8° step angle,

1/16 micro-stepping

Electrical

Storage Temperature: 0 °C ~ 32 °C [32 °F~ 90 °F]
Operating Temperature: 15 °C ~ 32 °C [60 °F~ 90 °F]
Power: 30W
Input Voltage: DC12V

Dimension

Printer Size: Φ250*445mm
Package Size: 340*340*595mm
Net Weight: 4.5KG
Gross Weight: 6.5KG

Software

Software package: REPETIER-HOST
File Type: .STL, .GCO
Operating System: WINDOWS, MAC OS
Connection: USB

CoLiDo 3D Printer makes solid, three-dimensional objects by melting PRINT-RITE PLA filament.

The designed 3D files are converted into CoLiDo command through computer software“Repetier-Host”and sent to the CoLiDo printer USB Cable. Then, the printer will heat up and melt PRINT-RITE PLA filament and push it out from the nozzle to make a solid object layer by layer.

This method is called Fused Deposition Modeling or FDM.

Before set up CoLiDo Printer, please note that the Printer has been inspected and packed carefully at the manufacturing facility.

Hope you can take more time to unpack carefully and set it up.

5.1 Unpack CoLiDo Printer

CAUTION： Do not forcely tear anything when unpack and setup CoLiDo Printer. It may damage the Printer.

1. Place the printer package box on a dry and flat surface when opening.

2. Take out all accessories inside the Printer box.
   Please refer to the Accessory Checklist at next page.

   NOTE: In case there are any missing accessory, kindly email the Printer serial number, name and qty of missed accessory to 3Dsupport@utec.com.mo.

5.2 Accessory Checklist

PRINT-RITE

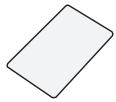
PLA Filament(50g) ----------

Flash Drive 1pc ----------

Power Cable 1pc ----------

USB Cable 1pc ----------

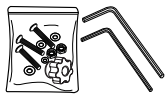
Test Sheet 1pc ----------



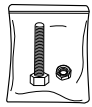
Power Supply 1pc ----------

Filament Tube 1pc ----------

Tools 1 Set ----------



3D printed samples 1 Set ----------

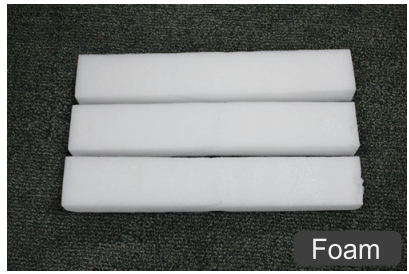


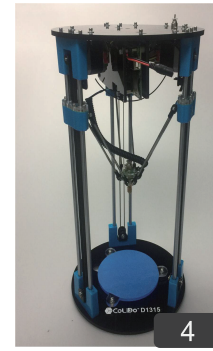
Adhesive Tape ----------

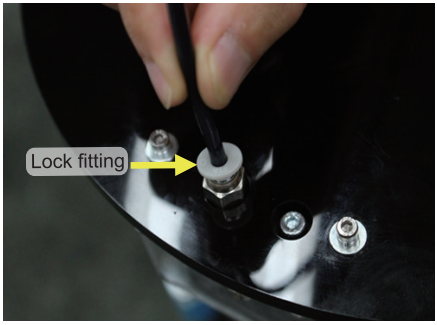
Spool Holder 1pc ----------

1. Place the printer package box on dry and flat surface when opening.

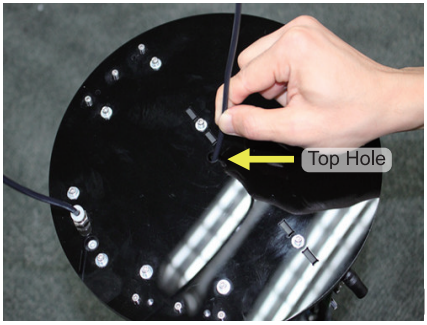
2. Remove the Orange tape and foam to release the print head. (3 Plastic foams)



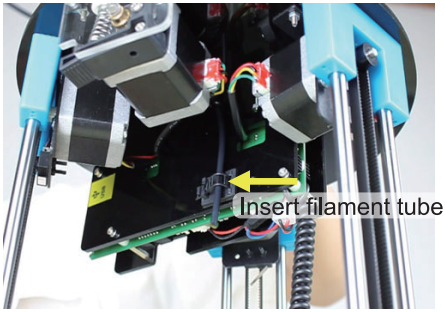




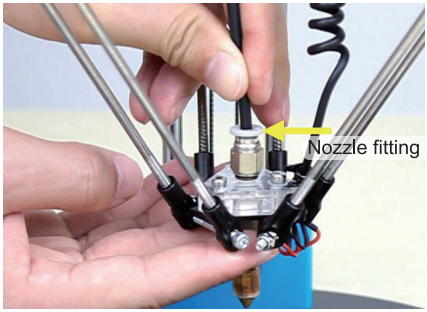
Step 1: Insert filament tube on the lock fittings on the top.



Step 2: Insert filament tube through the top hole.



Step 3: Insert filament tube through the holder.



Step 4: Push filament tube into the nozzle fitting locks.

5.5 Install REPETIER-HOST software

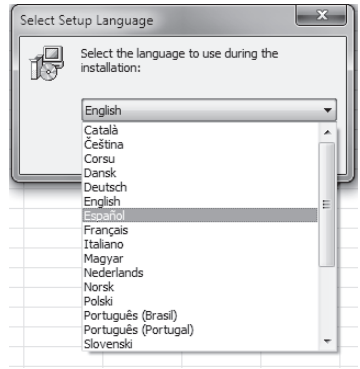
Install REPETIER-HOST.
Computer OS：WINDOWS 7

REPETIER-HOST is a software which is used to slice the 3D models (.GCO or .STL) and command CoLiDo Printer to print.

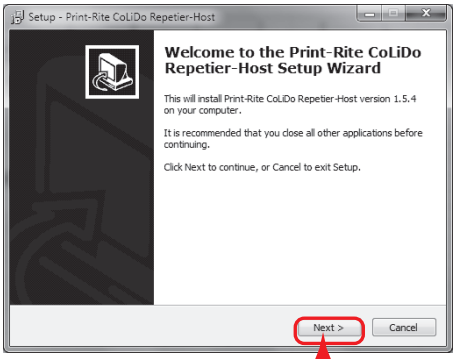
1. Find“setupColido-RepetierHost_1_5_5A.exe”in USB drive, double click to start.

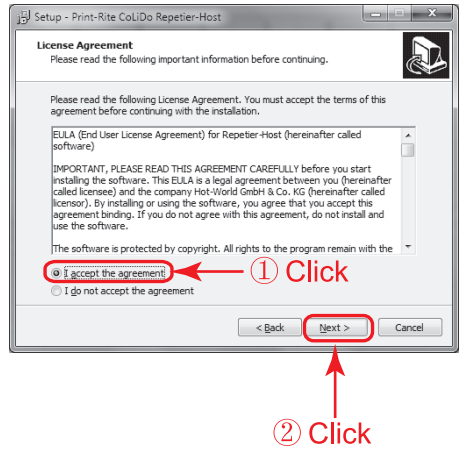
Select Setup Languange to use during the installation.

NOTE: The actual version of the software is regarding on the version inside of the USB driver.



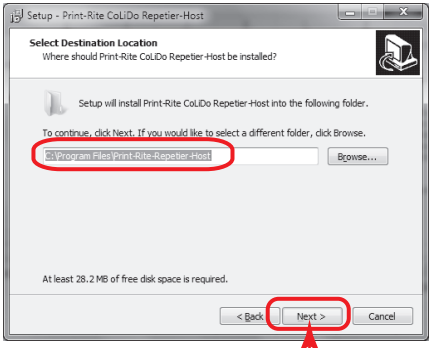
2. Start to install. (You will be asked“Do you want to allow the following program to make changes to this computer?”,please click“Yes”to continue installation.



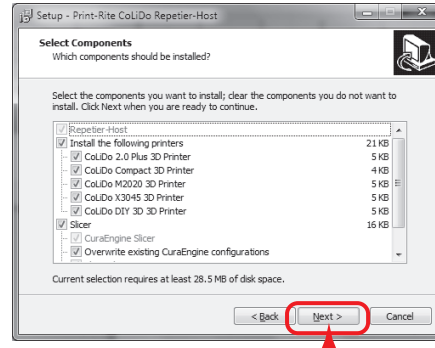


5.5 Install REPETIER-HOST software

❸ Select a destination to save the software and select the components should be installed, then click “Next”and“Install”.



Click



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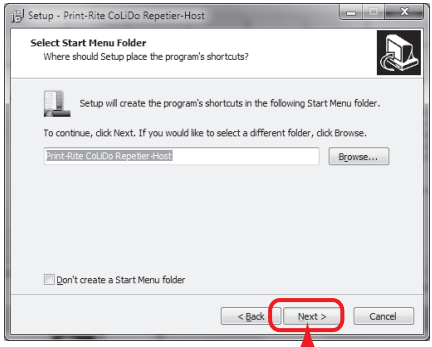

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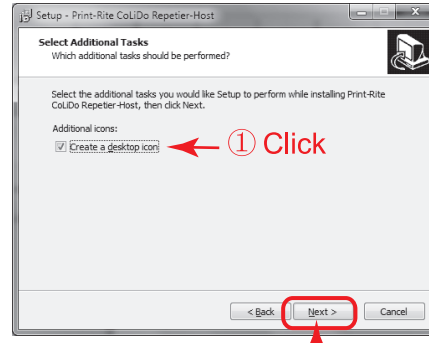
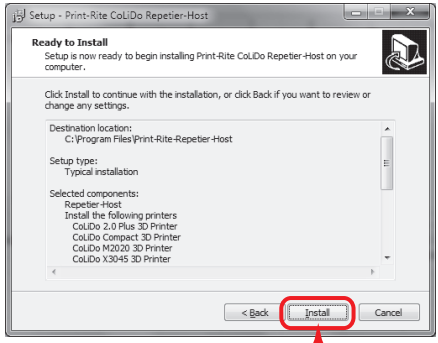
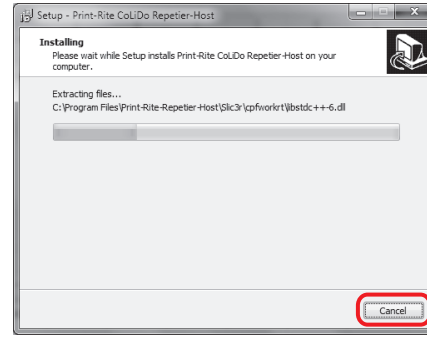


② Click



Click

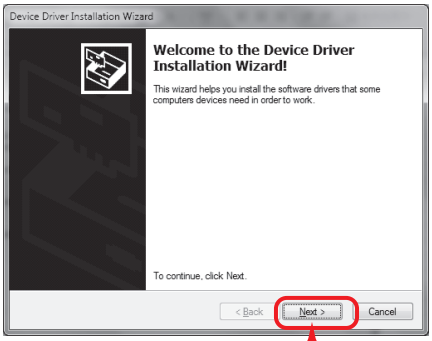


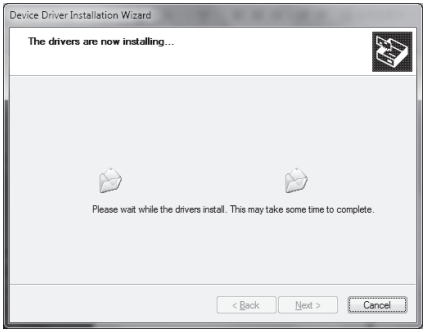
Click

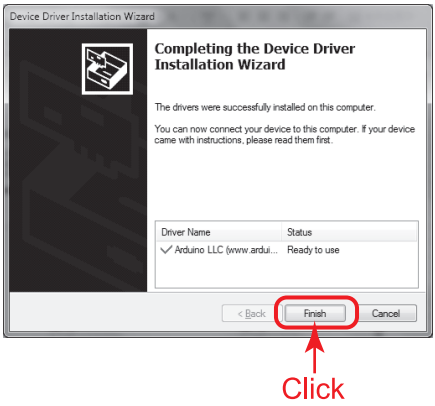
if antivirus message appear, please allow the operation timely.

4 Click “Install Arduino driver”, “Install FTDI serial driver” and “Launch Print-Rite CoLiDo Repetier-Host” and then click “Finish”.

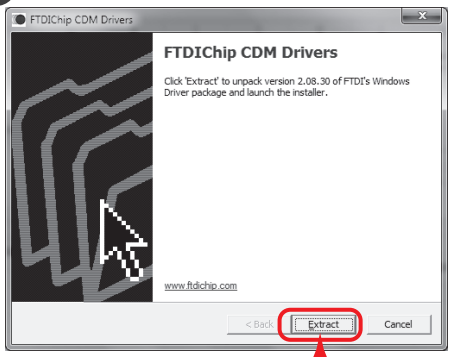
5 Install Arduino drivers.

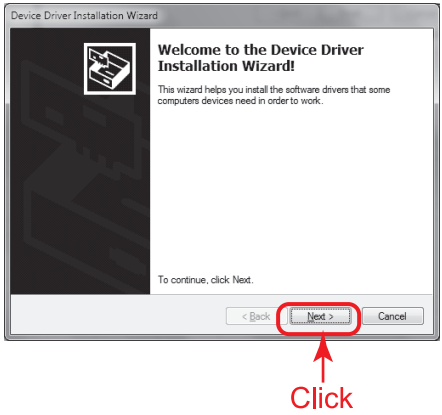


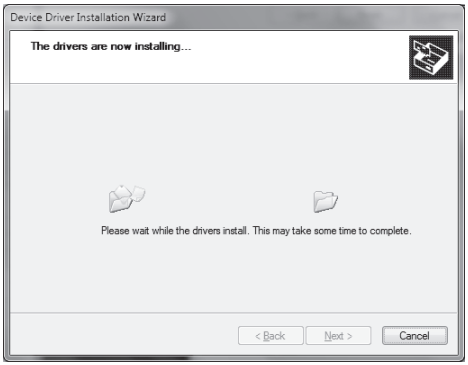


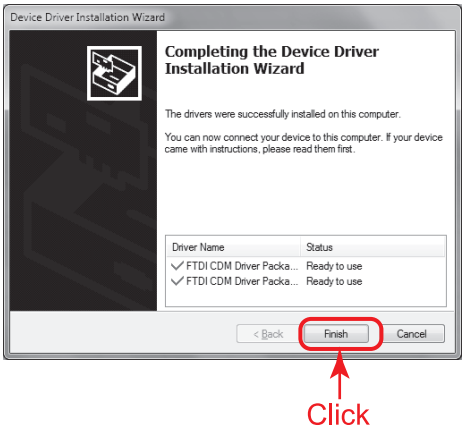


⑥ Install FTDI Drivers.

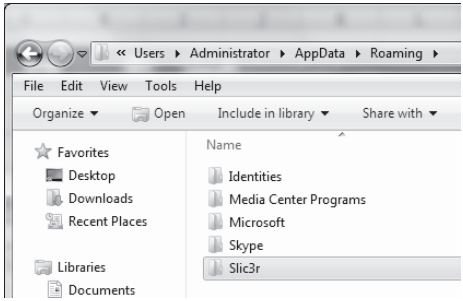






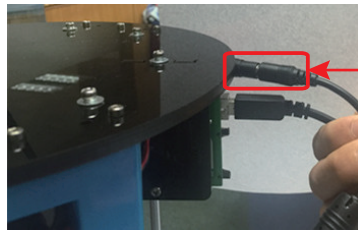


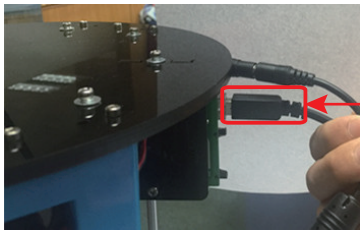
⑦ Find the configure folder “Slice3r”in USB drive, copy it to the computer path: “C:\Users******(User Name)\AppData\Roaming”as below.

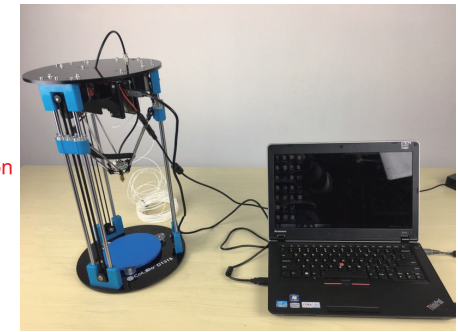


NOTE: “AppData” folder maybe will be hided in the computer. Please click “show hidden files, flolders, and drivers” in “Folder Options”. For more information please check in the FAQ in the end of this manual. （Page 31）

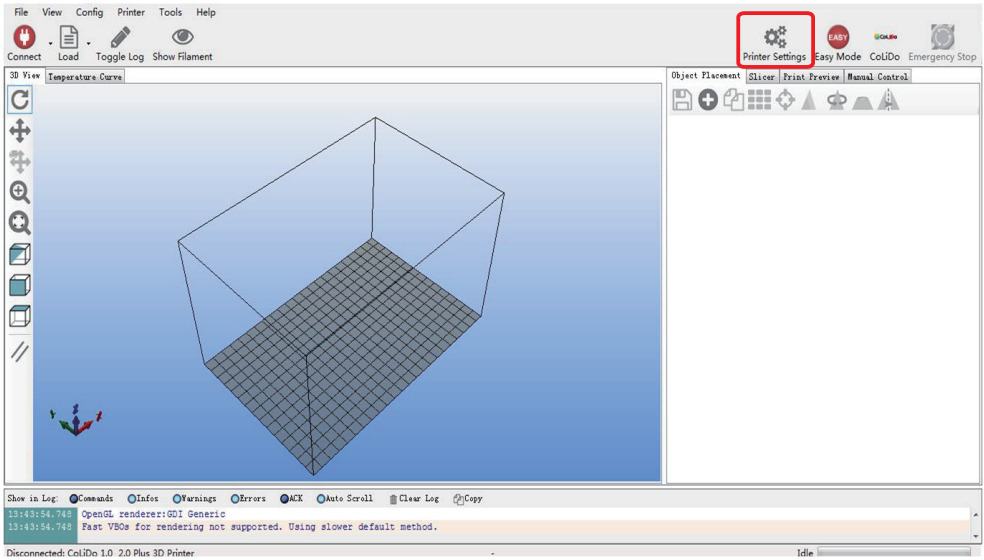
5.6.1 Connect power to the printer, then connect PC with printer



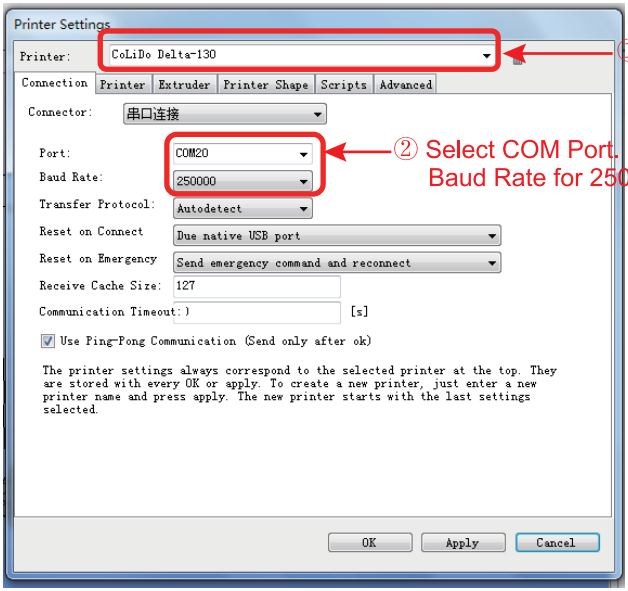




5.6.2 Double click on icon in the PC/laptop.



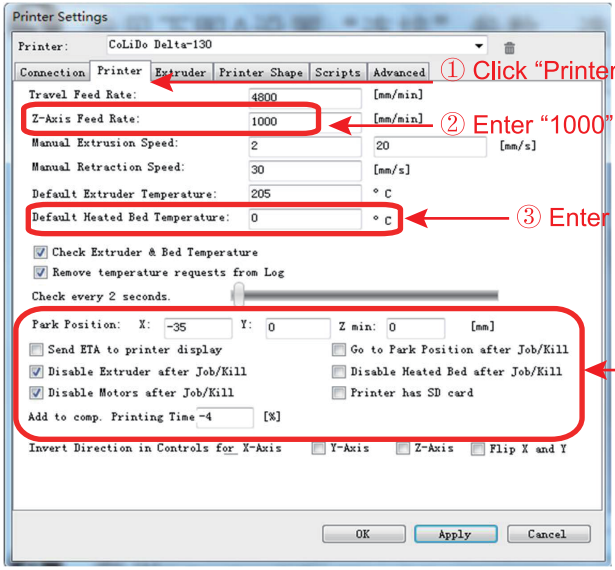
5.6.3 Printier settings



① Type “CoLiDo Delta-130”

② Select COM Port.
Baud Rate for 250000.

NOTE: COMx dependant on different computer or 3D printer you are using. Different 3D printer has different COMx, which can be located and matched with COMx in Device Manager.

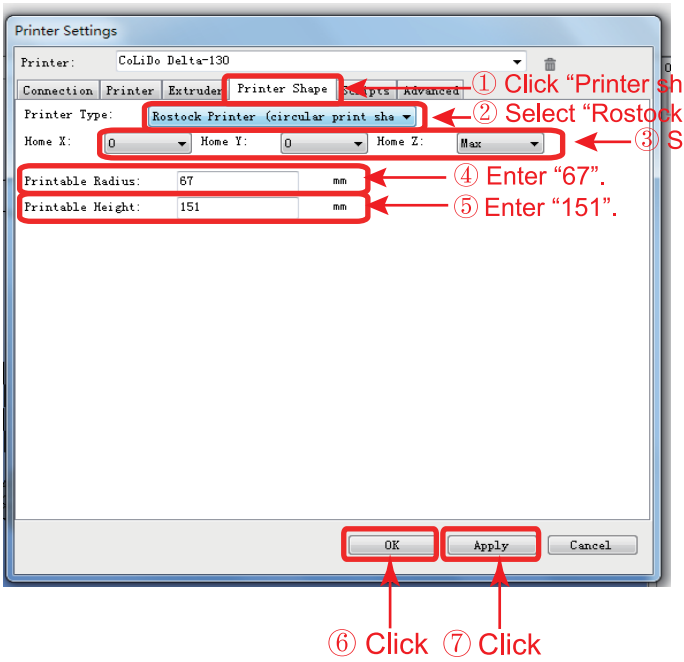


① Click “Printer” submenu bar.

② Enter “1000”

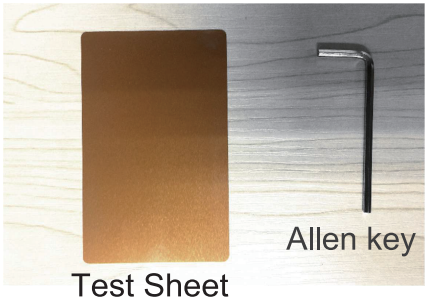
③ Enter “0”

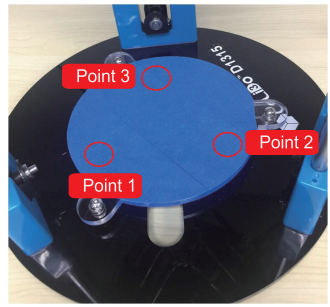
④ Change the options



5.6.4 Click “Connect” button on the upper left of the “Repetier Host” menu bar. After

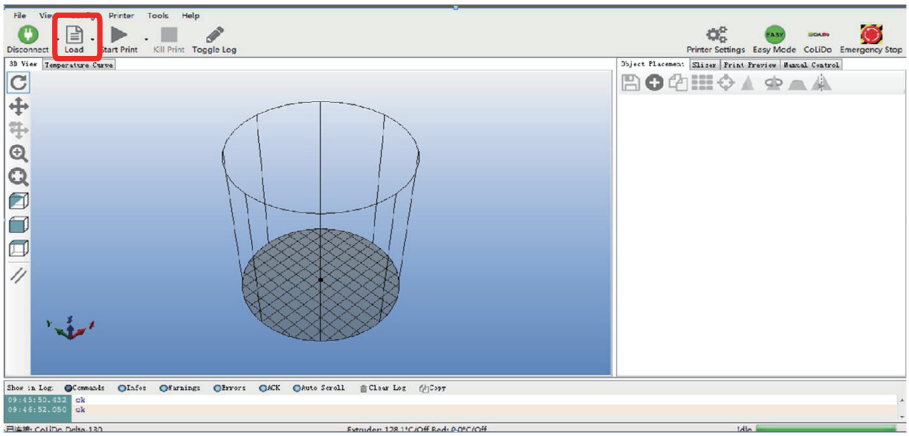
5.7.1 Prepare the test sheet and Allen key before start calibration. There are 3 points need to be calibrate, nozzle will stay in each point for 15 seconds. Repeat steps if calibration is not done yet.

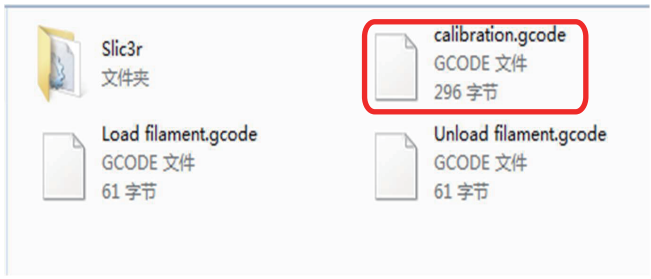




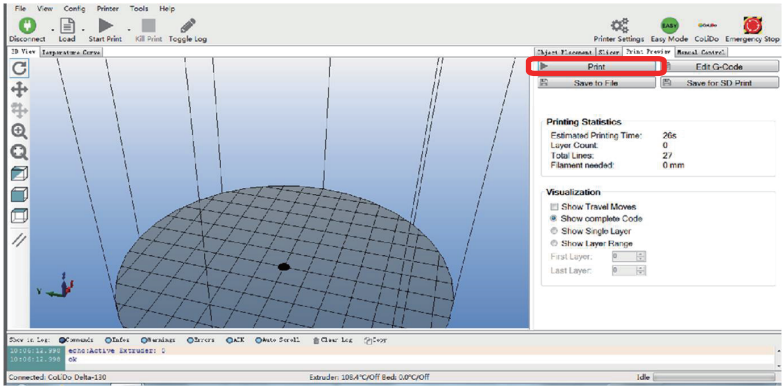
NOTE: Please DO NOT remove the blue tape on the platform.

5.7.2 Connect printer with PC, Click “Load” then select “Calibration” G-code file from USB drive. It is located under the “Other” folder.

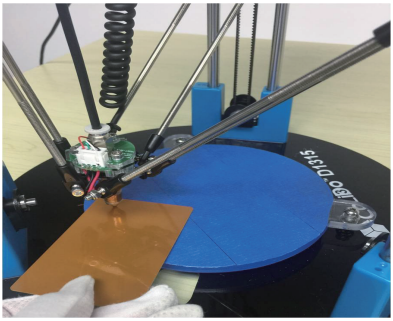


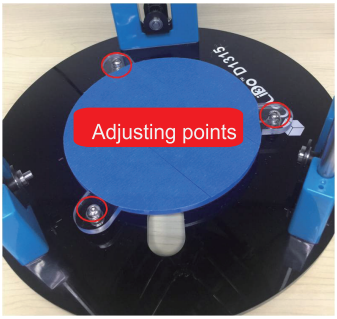


5.7.3 Click “Print” after load the “Calibration” G-Code to start calibrate.

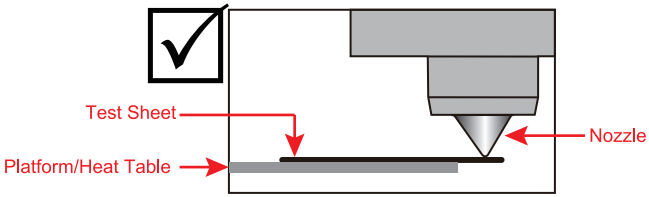


5.7.4 When nozzle reach to the calibration point, insert the test sheet between nozzle tip and platform. Refer the conditions below to adjust the printer under the adjust position. For each point, nozzle will stay for 15 seconds.



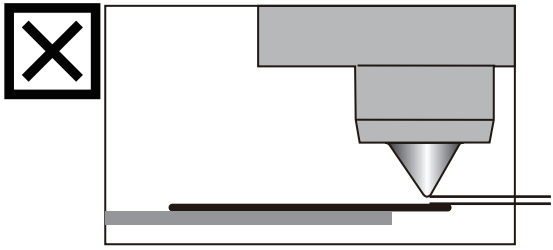


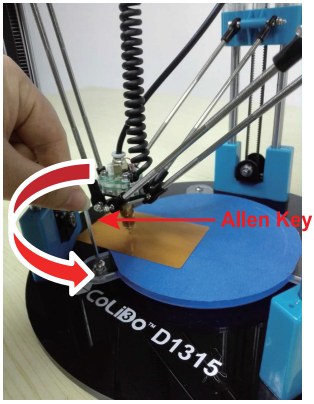
Calibration Standard Condition:
The test sheet must be lay down flat on the platform and it must touching the nozzle tip.



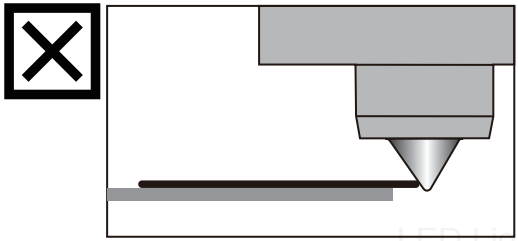
Note: If the calibration standard condition is not met, nozzle level must be adjusted.

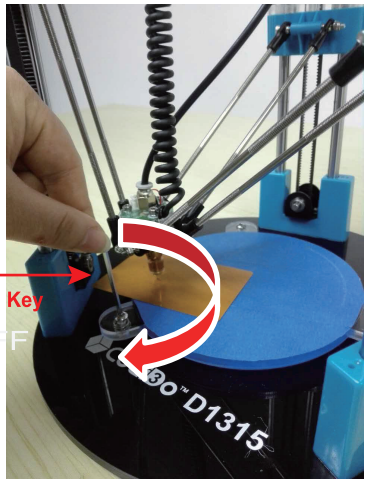
Condition 1: There is a gap between the nozzle tip and the test sheet.
Adjustment 1: Use Allen key to rotate the adjusting screw on the side of the platform counterclockwise until the test sheet just touching the nozzle tip as standard condition.



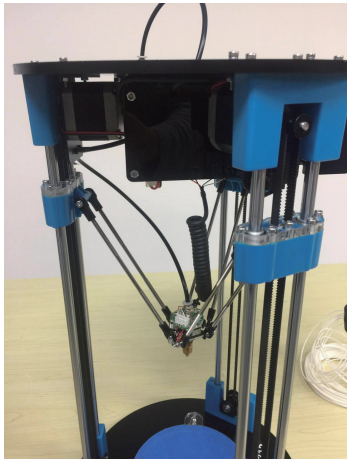


Condition 2: The test sheet is over the nozzle tip.
Adjustment 2: Use Allen key to rotate the adjusting screw on the side of the platform clockwise until the test sheet just touching the nozzle tip as standard condition.

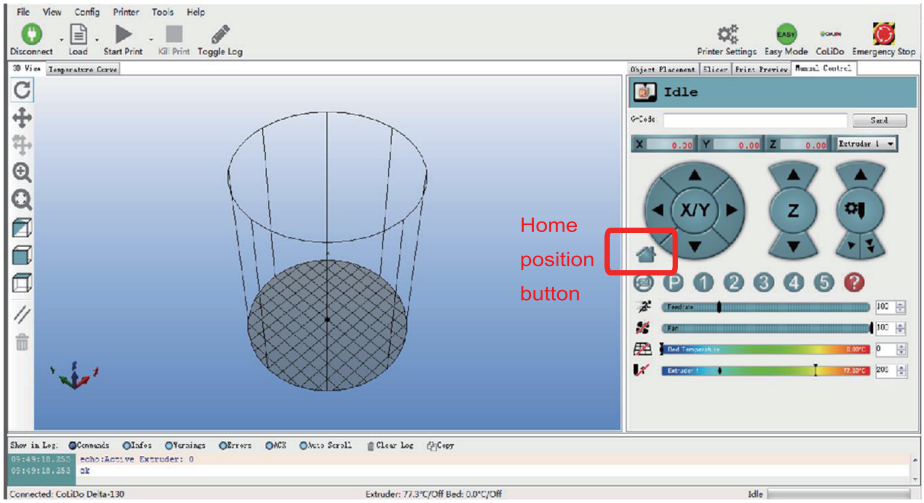




5.7.5 After 3 points calibration, the nozzle will go to adjust position. (Not home position)



5.7.6 If not finish the calibration, reload the “Calibration” file and start print again. If finished the calibration of the printer, please click ”Home” on the manual control panel.

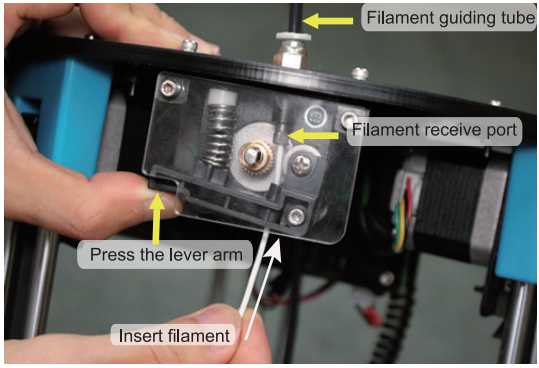


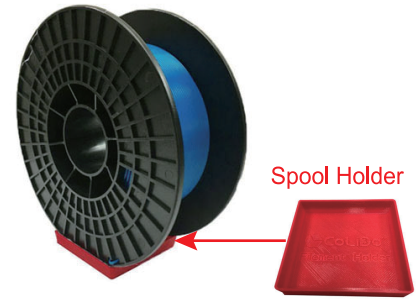
NOTE: For more information about the commands on the manual control panel, please refer FAQ.

6.1 Load filament and test print.

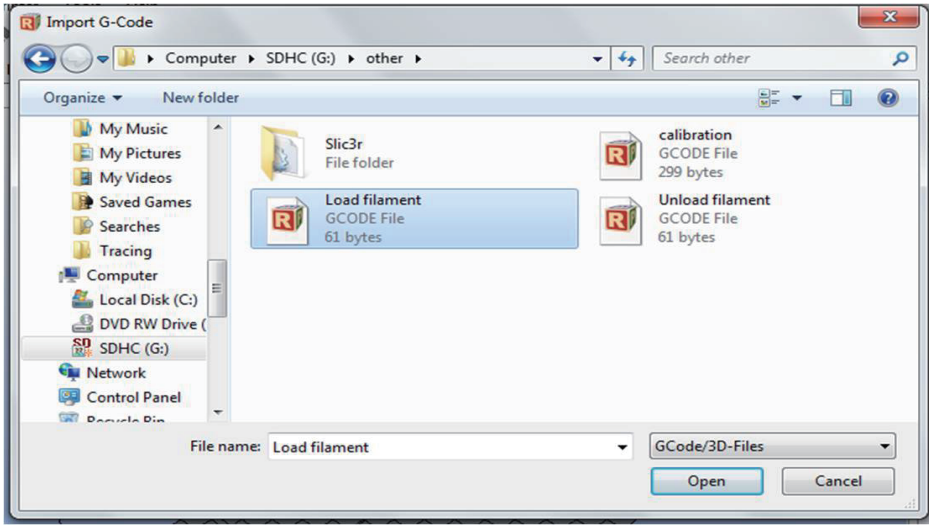
6.1.1 Filament Installation

Press the lever arm and insert filament into the guiding tube. Just reach the guiding tube is. (If you purchased whole spool of the filament, please follow the Fig. below to mount filament on the spool holder.)



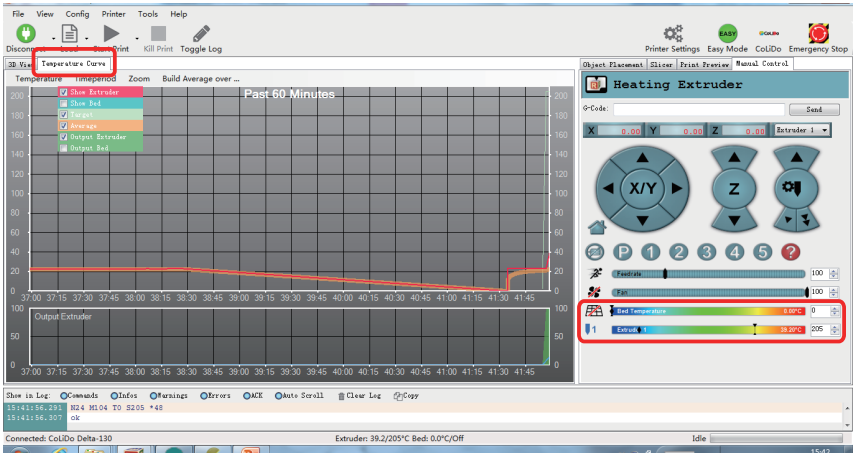


6.1.2 Click “Load”, select “Load filament.gcode” file.

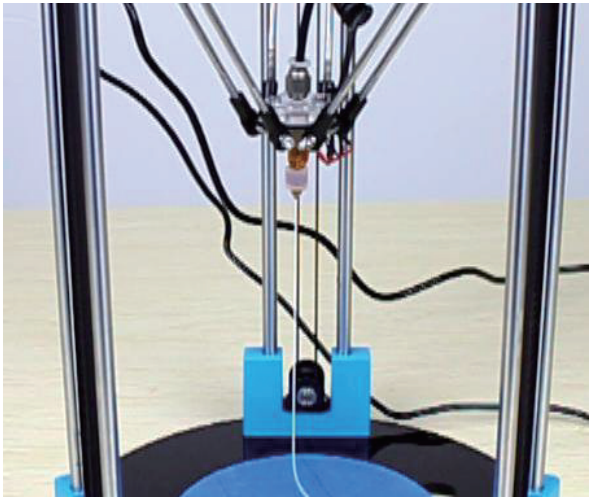


6.1.3 Click on the “Start print” to start load filament.
Select“Temperature curve” to observe nozzle heating up.

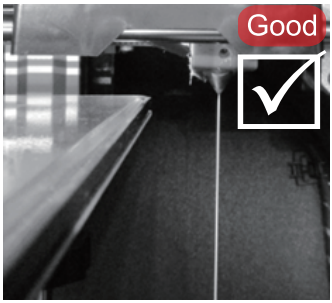
Filament loading temperature is 215ºC, heating time is around 1 minute.
After reach the target temperature, it will keep up at ±3ºC。



6.1.4 When the filament is successfully loaded, the extruder will flow the filament continuously.
NOTE: The filament loading process might take few minutes.



Good condition:
The melted filament flow out smoothly and continuously from the nozzle.

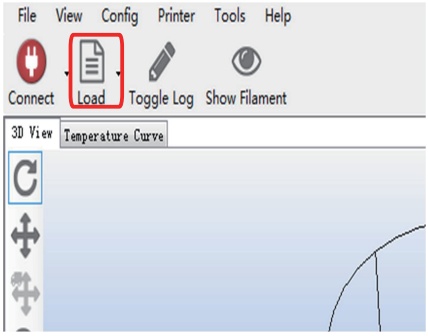


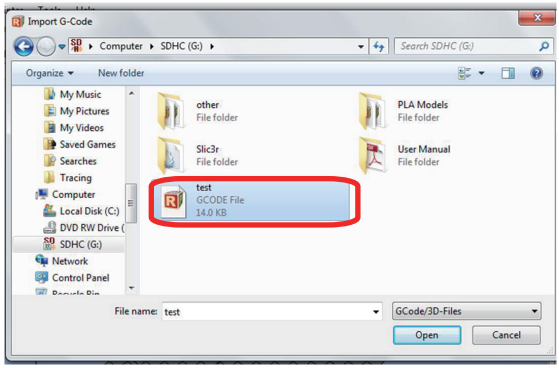
No Good condition:
The melted filament do not flow out smoothly and continuously from the nozzle.

Note: If the filament flowing is in No Good condition, check the following.

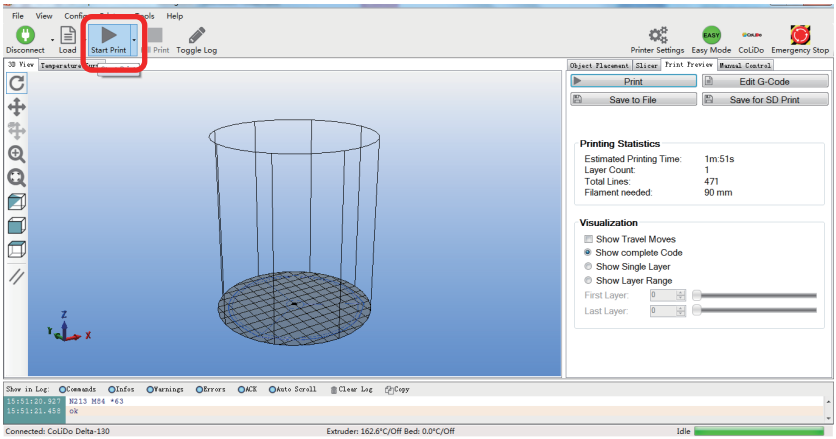
a. Nozzle Temperature - must be the equal to the set temperature and according to the filament material melting temperature.
b. Nozzle Cleanliness - No Clogging by refer to troubleshoot clogged nozzle label on the front of the printer.
c. Filament Insertion on the receiving port correctly.
If problem still occur kindly email 3Dsupport@utec.com.mo

6.1.5 Load “test” G-code inside the USB drive, and click “Open”.
NOTE: PLA filamet normal print temperature is 205 ºC.

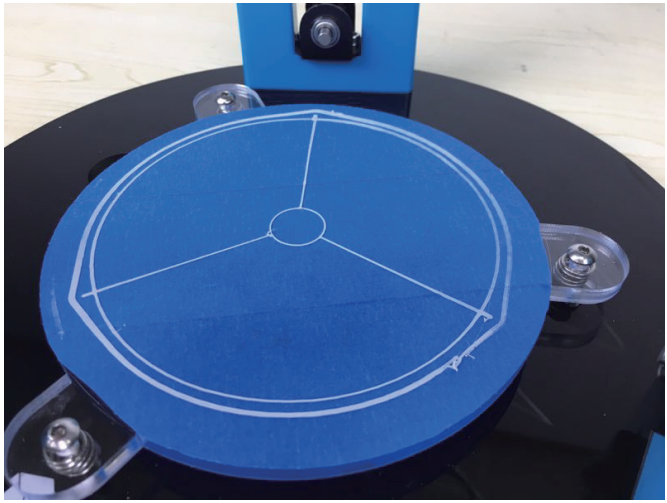




6.1.6 Click “Start print”.

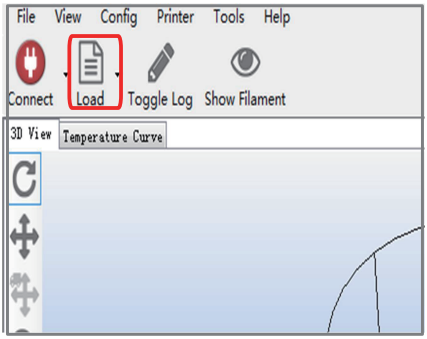


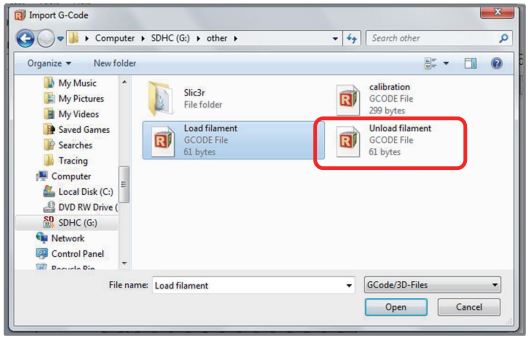
6.1.7 Print the test file.



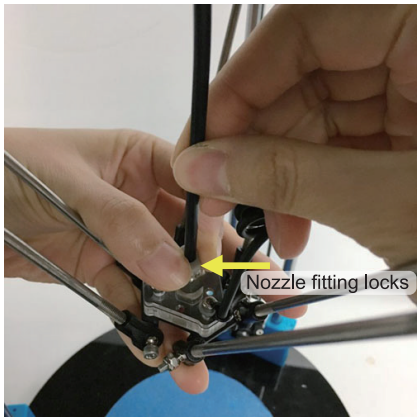
6.2 Change Filament.

6.2.1 Click on “Load” to select “Unload filament. gcode” file. Click “Print” to start unload filament.

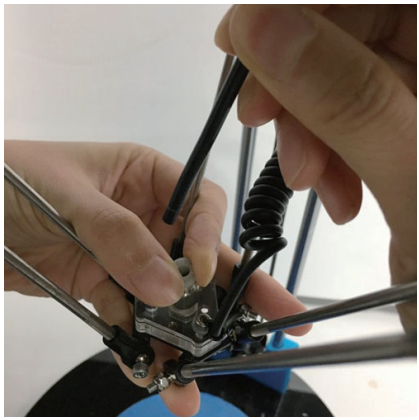




6.2.2 After nozzle reach to target temperature, printer will start unload filament automatically. Refer chapter 6.1 to load another filament.
NOTE: To check if there are remaining filament inside the filament tube, press down the nozzle fitting lock and pull out of filament tube when nozzle at normal temperature. Please refer Fig.A and B below:

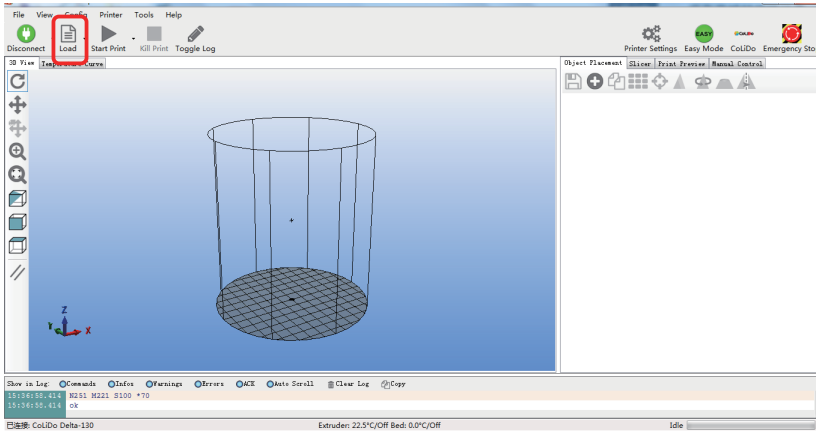


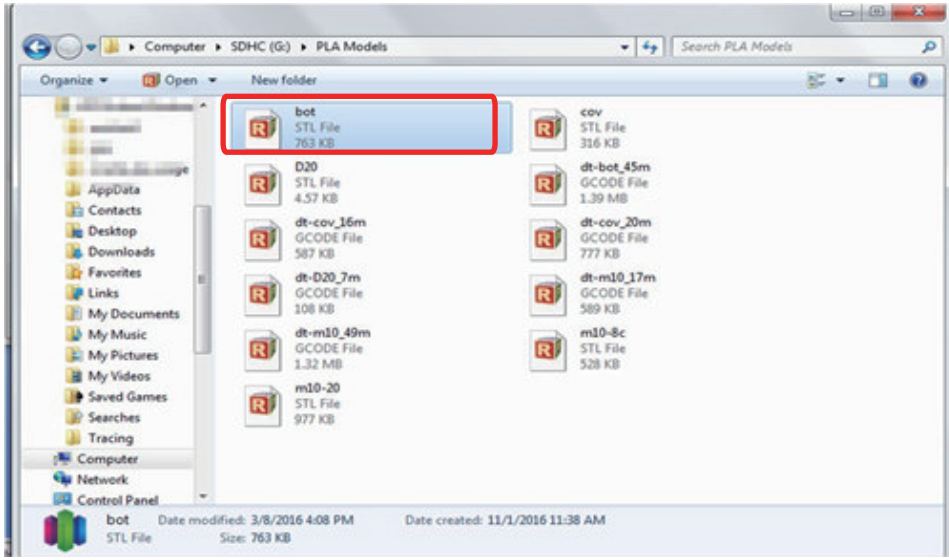
A



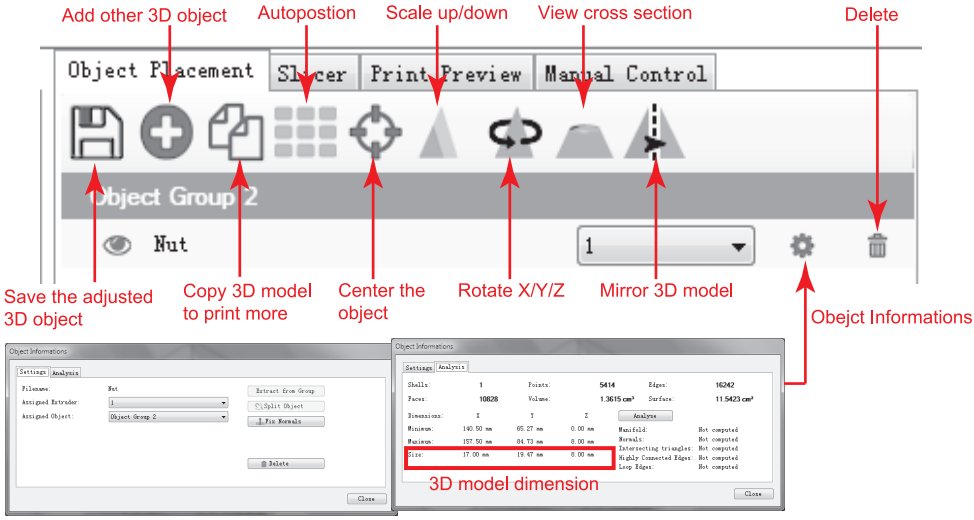
B

1. Click" Load" to select ".STL" file and use slice function to transfer it into ".GCO" file to start print.

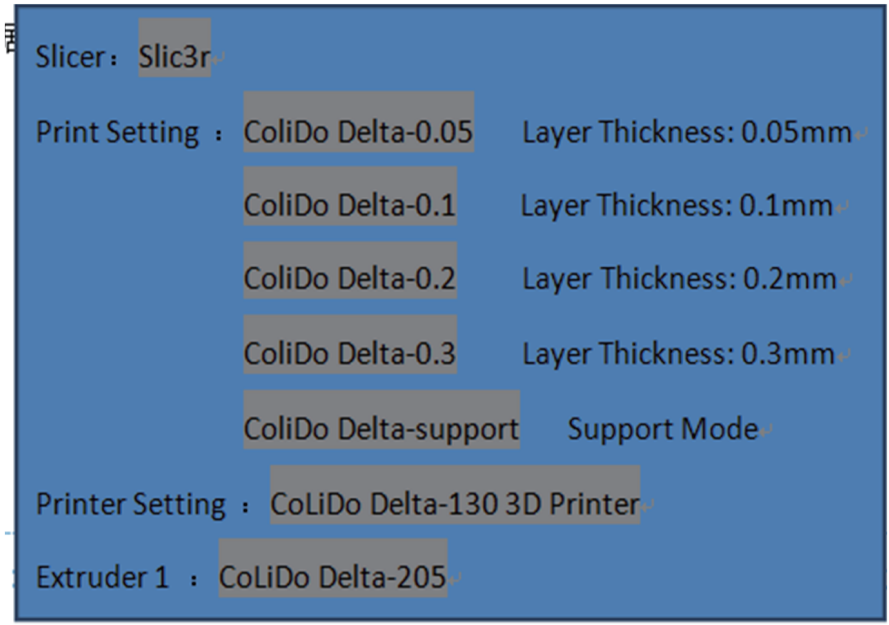




❷ Use the menu on right side to position the object. Always place object in the center.

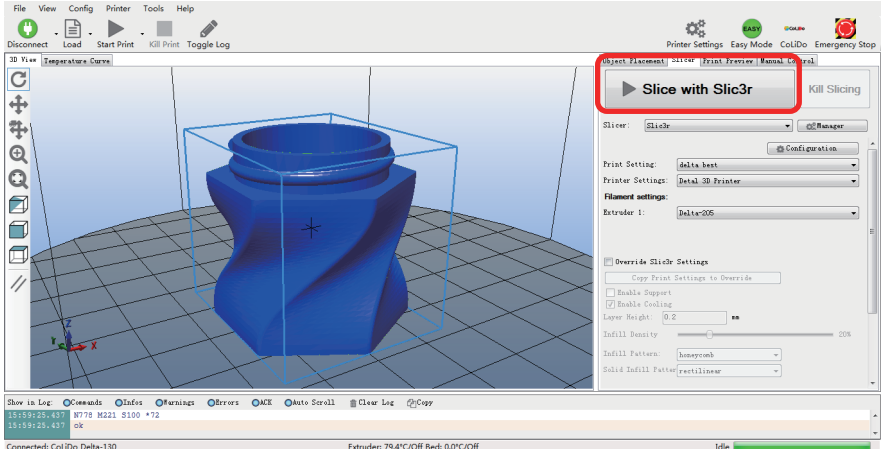


❸ Select print mode depends on the object effects and PLA material.

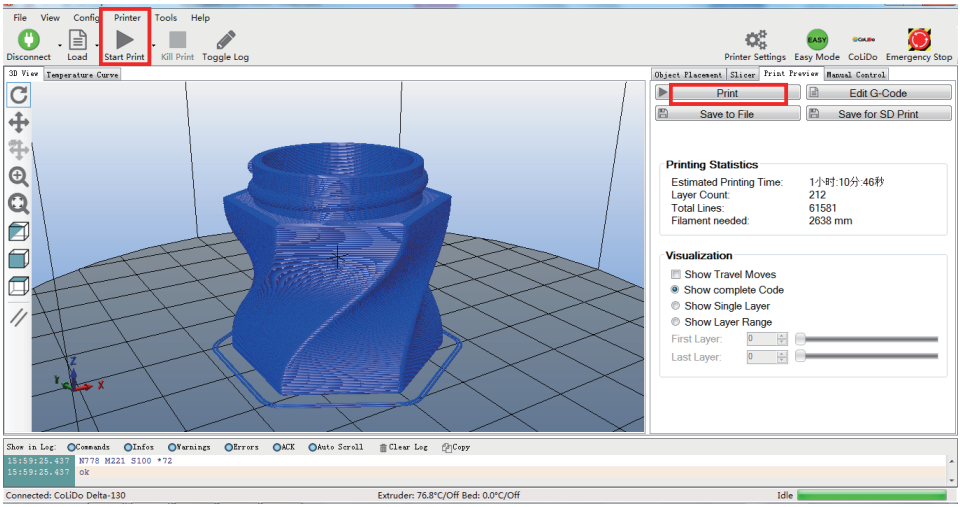


4 Click “slice with Slic3r”.

NOTE: Before start printing, please make sure filement is load completely, CoLiDo printer is on and also connect with PC.

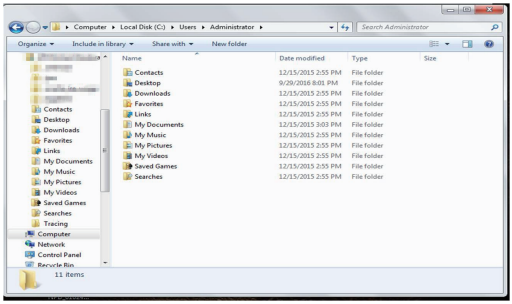
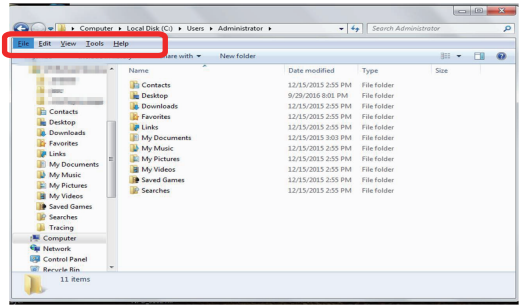


5 Click “Start print” or “Print” to start.

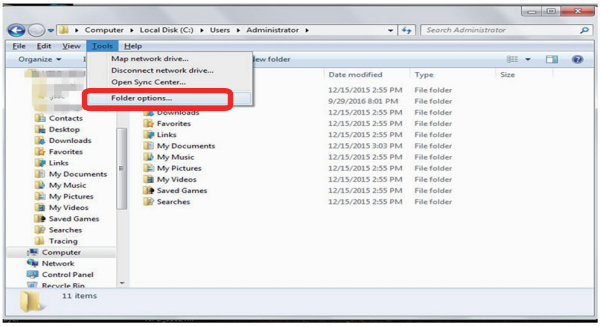
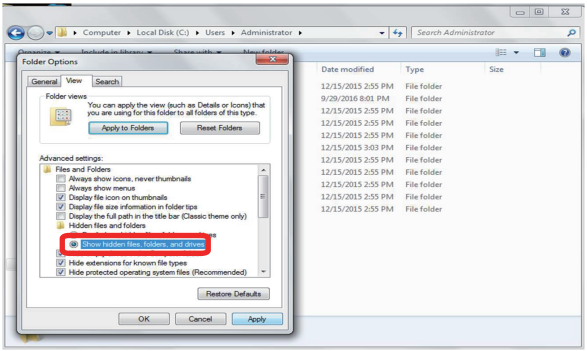
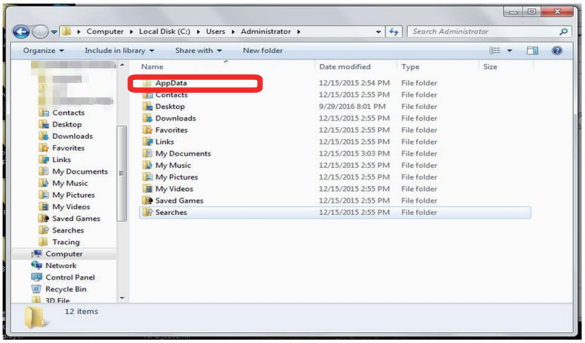


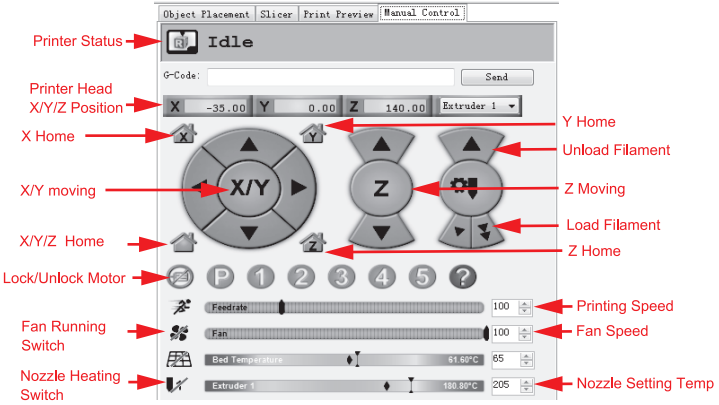
6 After printing is completed, please wait for few minutes to let the object to cool down before removing from the platform.

Consumable (Filament)	
? Question	Solution
What is the default setting temperature for the printer?	PLA: Nozzle temperature is 205℃, Bed temperature is 0℃.

3D Printer	
? Question	Solution
Does the printer support offline printing?	Do not support offline printing. Need connect with computer using USB Cable.
How to know if the printer is working well?	Print the test file saved in the Flash Drive to check the printing status.
Where to find the Slic3r folder?	1. Find the computer path: “C:\Users********(User Name)\AppDate\Roming”(Might be not in drive C, it is inside the system drive.) “AppData”folder is a hidden folder.  The “AppDate”folder and menu bar are not showing in the folder. 2. Press “Alt” on the keyboard to show the menu bar on the top. 

3D Printer

Question	Solution
Where to find the Slic3r folder?	3. Select “Folder options...” under the “Tools”menu.  4. Under the “View” menu, select “Show hidden files, folders, and drives”then click “Apply” and “OK”.  5. Now the AppDate folder is shown in the folder. 

3D Printer	
? Question	Solution
How to use orders on the manual control panel?	

If you need more assistance, kindly please contact with us:
Email: 3Dsupport@utec.com.mo