

LEO User's Guide



V1.2

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I. Overview

Thank you for your support of our company's products, the guidelines only apply to LEO 3D printer. This guide is based on Win10 operating system.

Chapter 1: Introduction of software and printing step

Chapter 2: Introduction of actual printing operation and the print methods

Chapter 3: Technical support and guidance

Please read carefully before using the printer LEO as following:

- * Before you run the printer, please ensure it's grounded to protect the printer from electrostatic interference.
- * When doing maintenance for the printer, please turn off the power and unplug the power cord.
- * Do not leave the printer running in the absence of probation conditions.
- * Do not touch the nozzle under heating , and above 60 °C print platform.
- * Some printing supplies at high temperatures melt will produce a slight odor, please use the printer in a well-ventilated conditions.
- * First adjust the machine before printing platform parallel with the print nozzles to prevent nozzle rub internet.
- * Place the printer on a flat solid platform

II. Thanks and Commitment

Thanks

Thanks for your purchase and support for LEO 3D printer . You may also purchased our other 3D products or well understand 3D printing technology. But we still want you to read this guide, it contains a lot of important information about the use of the product so that customers get a better 3D experience. By reading and understanding of the operation, you can immediately start your first print.

Committed

We are a professional 3D printer technology and service team, we know very well the importance of after-sales support services for the product. Especially for this emerging technology products, but also it is a challenge. You can get VIP after-sales service, quickly and efficiently solve problems you encounter during the use. 3D printing for most people is an emerging technology, therefore, we are willing to guide you into the wonderful world of 3D printing. Dream is not just a simple imagination, but can be materialized, touch, and LEO can help you complete. The magic of 3D printers is that change the idea into reality by printing layer by layer, we are much honored to invite you to join us to experience this miracle.

III. What is 3D Printer?

In short, 3D printers are used to three-dimensional computer model into real objects can be touched. The most common 3D printing technology is called FDM (Fused Deposition Modeling), namely melting precipitation manufacturing technology, LEO belong to this one. The way it works is melted on the printing platform supplies plastic called high temperature. After cooling supplies curing, this process occurs at the instant it from the print head is pushed out . Three-dimensional objects layer by layer is superposed by supplies formed.

3.1 3D printing steps

3D printing involves three steps:

- 1) 3D modeling;
- 2) Slice and output 3D models;
- 3) Printing;

3.2 3D Modeling

3.2.1 Self-designed 3D models

You can use the powerful 3D graphics software design 3D models, such as Fusion360, SolidWorks, Pro-E and other 3D graphics software, the modeling method is applicable to professional design engineers, mapping software or above a certain understanding of the user.

3.2.2 Downloaded from the network

Currently available 3D models of the most popular and most convenient way is to download from the website, which allows registered users to upload 3D models of their own design.

3.2.3 3D Scanner

Scanning the object is an alternative method of 3D modeling. 3D scanners to digitize items, collected its geometric data, then save it as a file stored on your computer. Install the appropriate App on your mobile device can be realized 3D scanning.

3.3 Slice output 3D model

Slice software can translate 3D models into G-code that 3D printer can read.

Slice software LEO used is the most common type of Cura, Simplify3D (PS: Cura is quick and easy Slice software with fast speed, short printing time and easy to operate; Simplify3D as a fine slice software, requires many kinds of setting about the parameters, representing more suitable for fine print, it needs to have a certain understanding, it is a good software to adjust the fine print). LEO by dividing into a 3D model of a plurality of layers in the form of g-code file output format of this file can be read by LEO . Files can be in the form of a USB cable, SD card, then transferred to LEO for printing operation.

IV.LEO printer software and printing steps

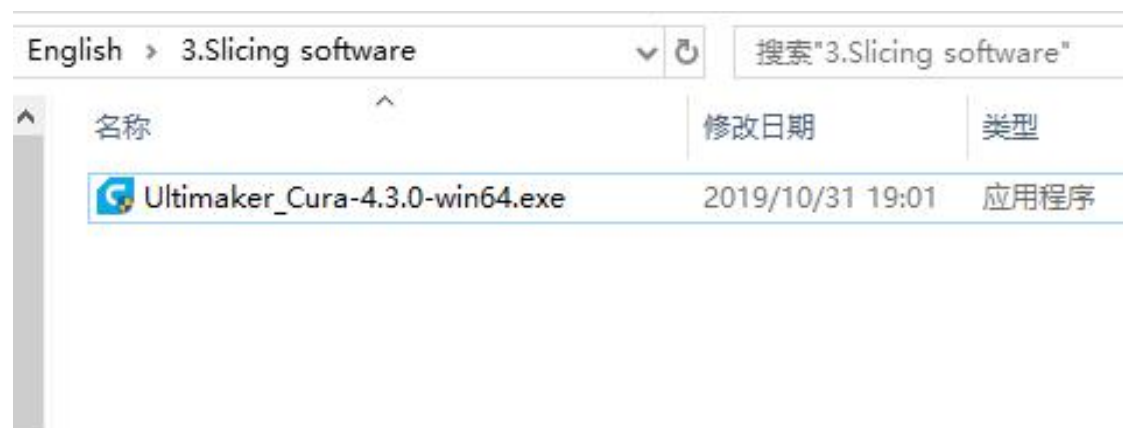
4.1 Software copy

Insert the SD card into the computer, SD card file "[3.Slicing software](#)", there are Cura control software installation package, You can copy the required installation to your computer.

4.2 Install control software

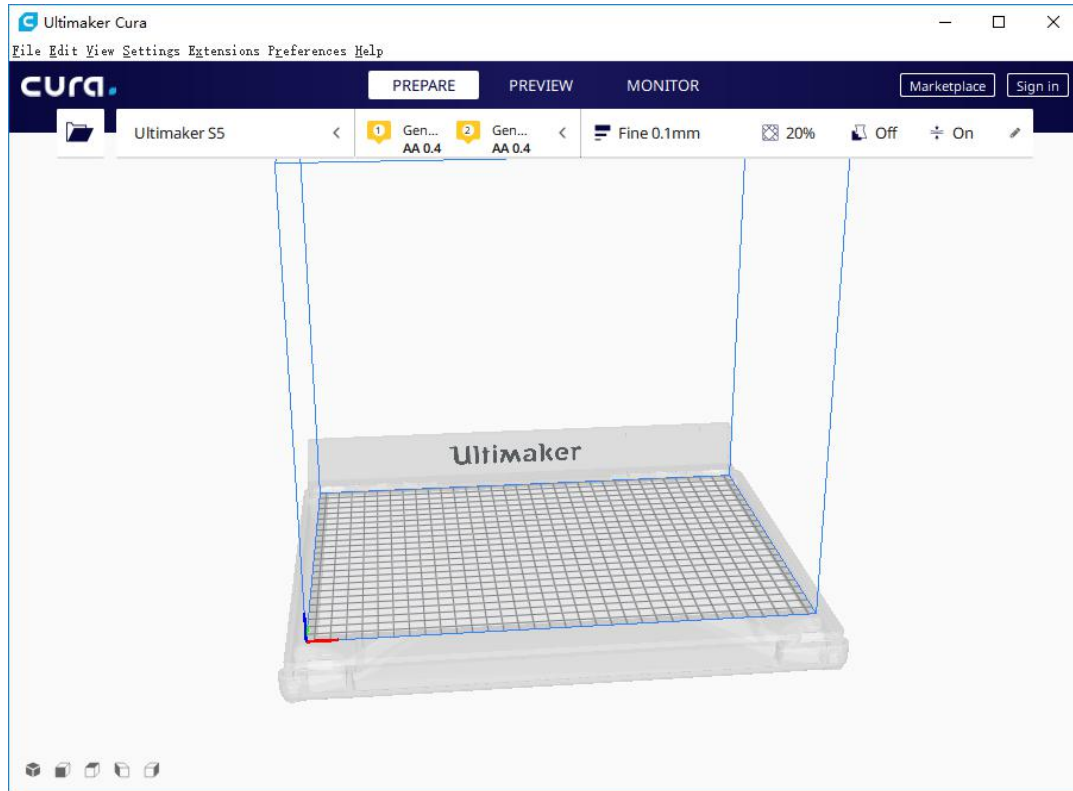
1.Follow the instructions to complete the software installation.(please follow the steps to complete the installation and cracking)

Double-click“Ultimaker_Cura-4.3.0-win64”installation package file.

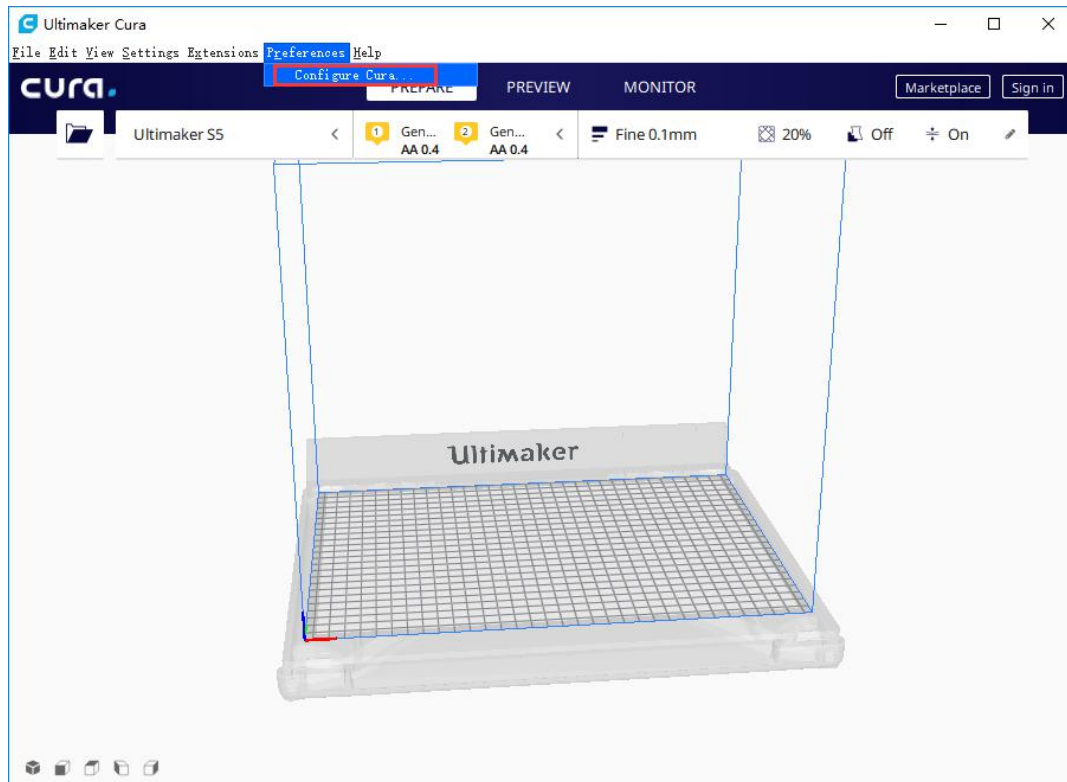


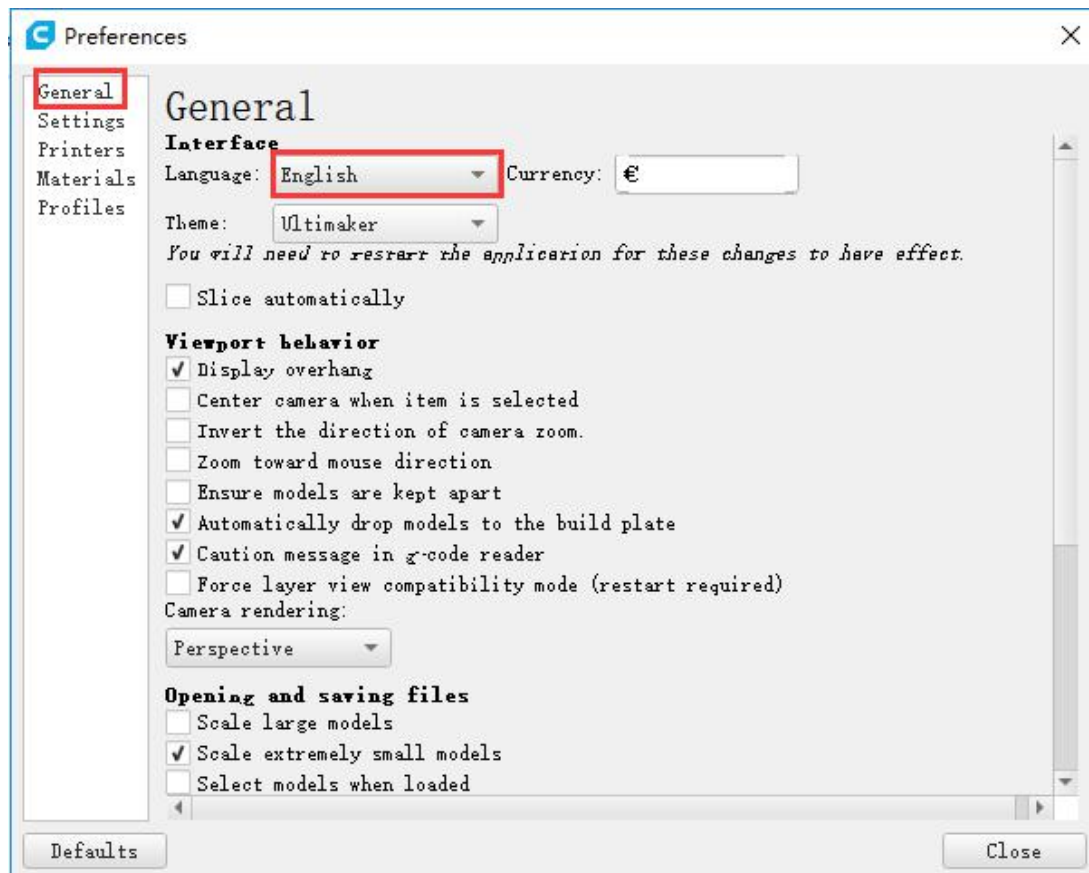
4.3 Setting Control software

Users can control LEO 3D printer printing with Cura software. They need to set up control software and open Cura.

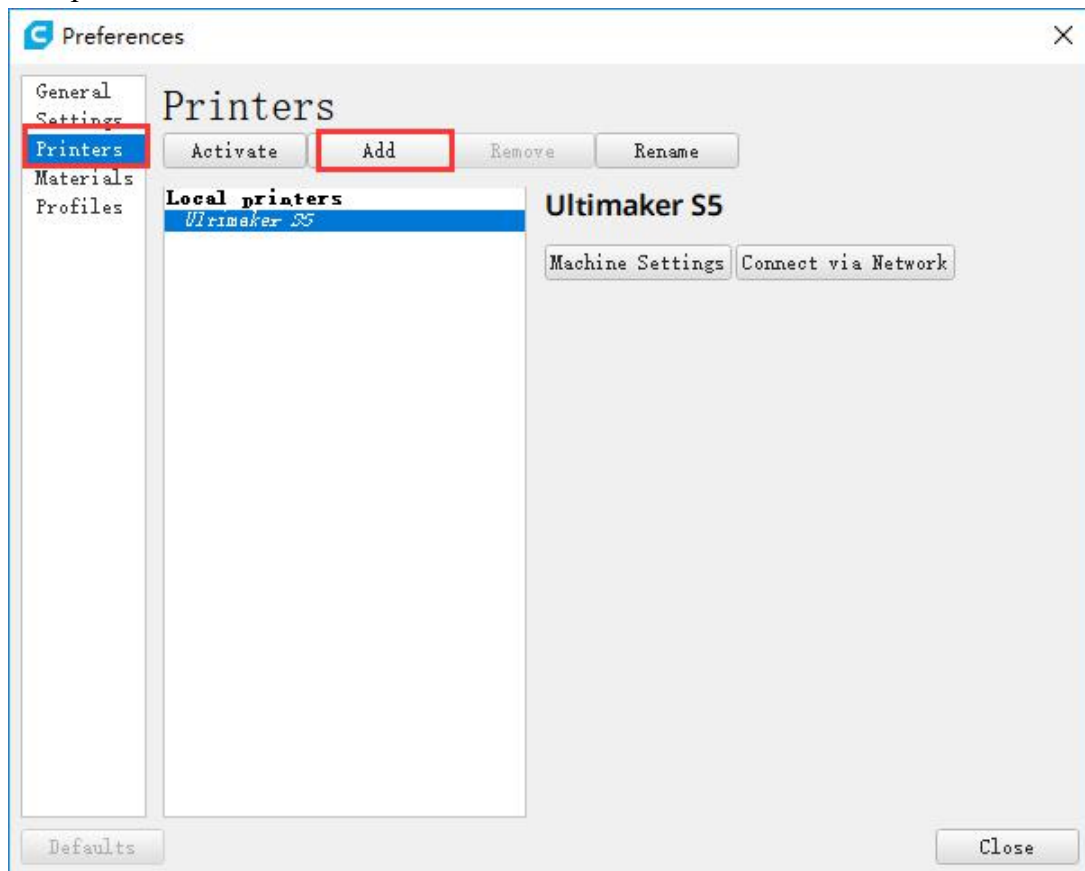


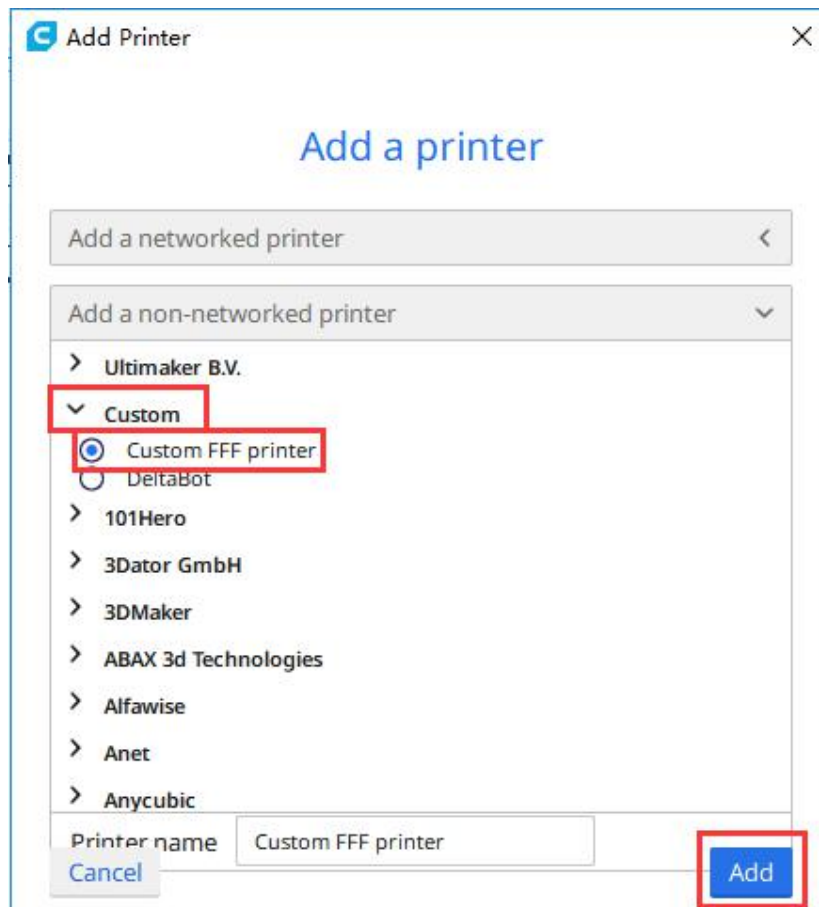
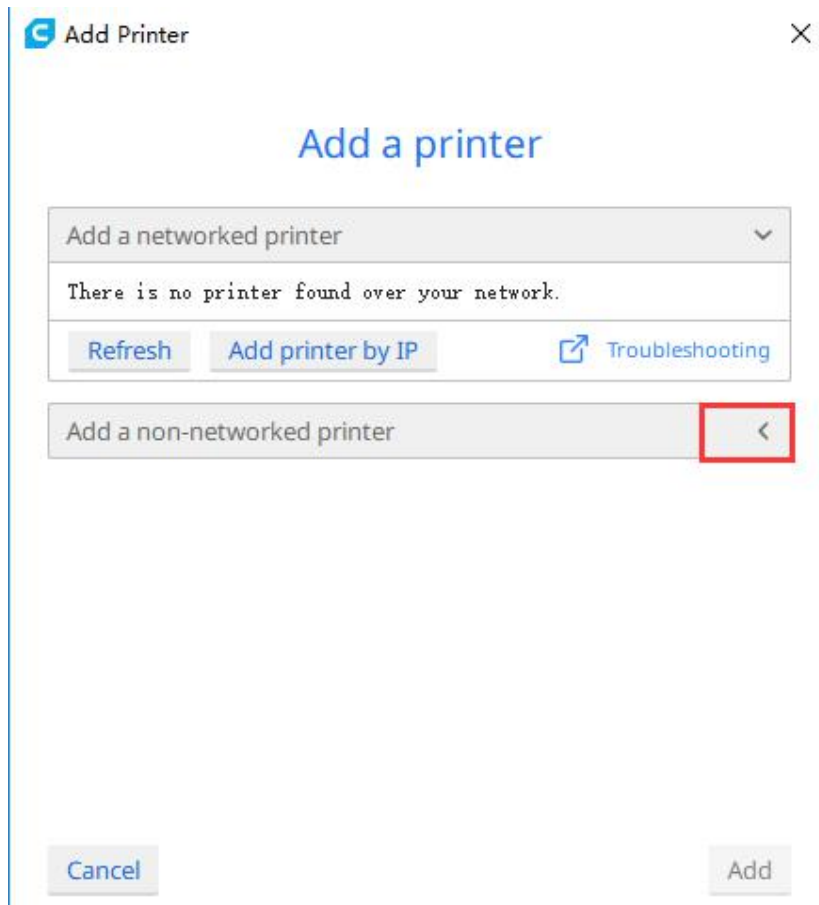
Click“Preferences”, Select the language



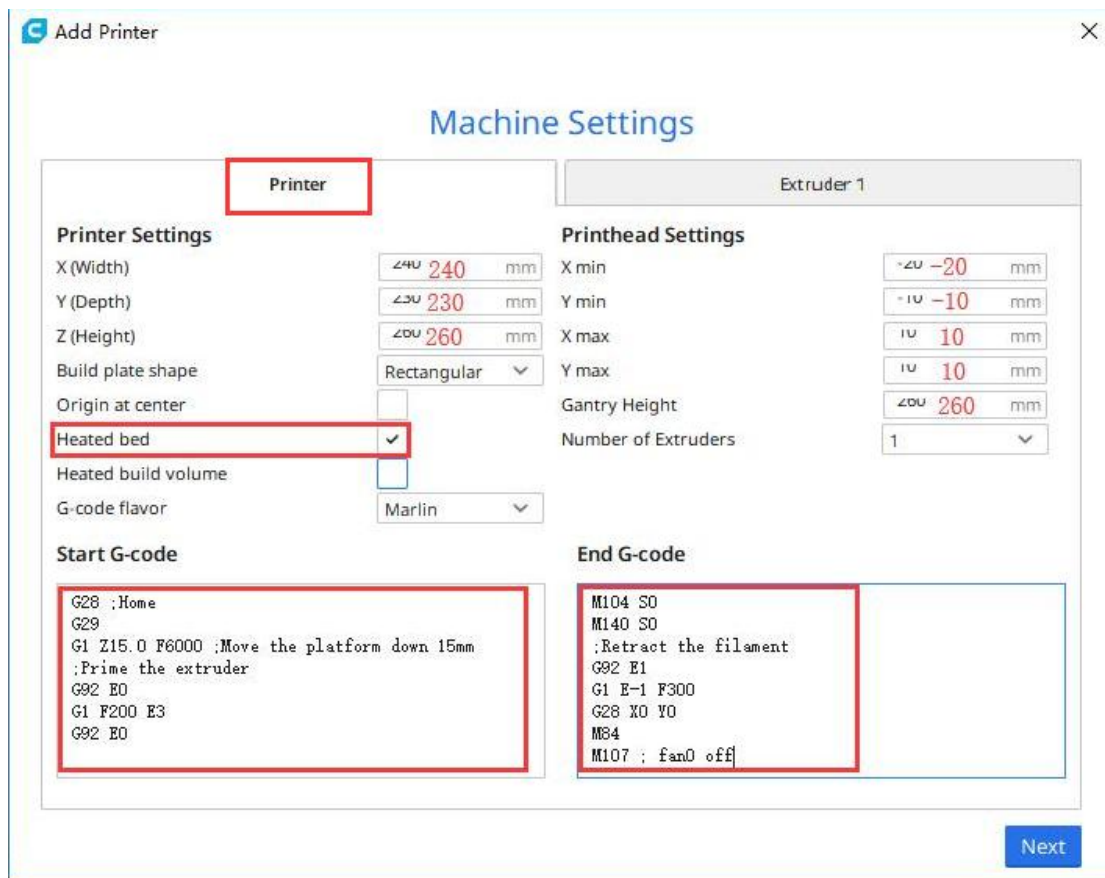


Add printers





Select printer, set the machine settings as shown



Add Printer

Machine Settings

Printer

Printer Settings

X (Width) 240 mm

Y (Depth) 230 mm

Z (Height) 260 mm

Build plate shape Rectangular

Origin at center ☐

Heated bed ☒

Heated build volume ☐

G-code flavor Marlin

Printhead Settings

X min -20 mm

Y min -10 mm

X max 10 mm

Y max 10 mm

Gantry Height 260 mm

Number of Extruders 1

Start G-code

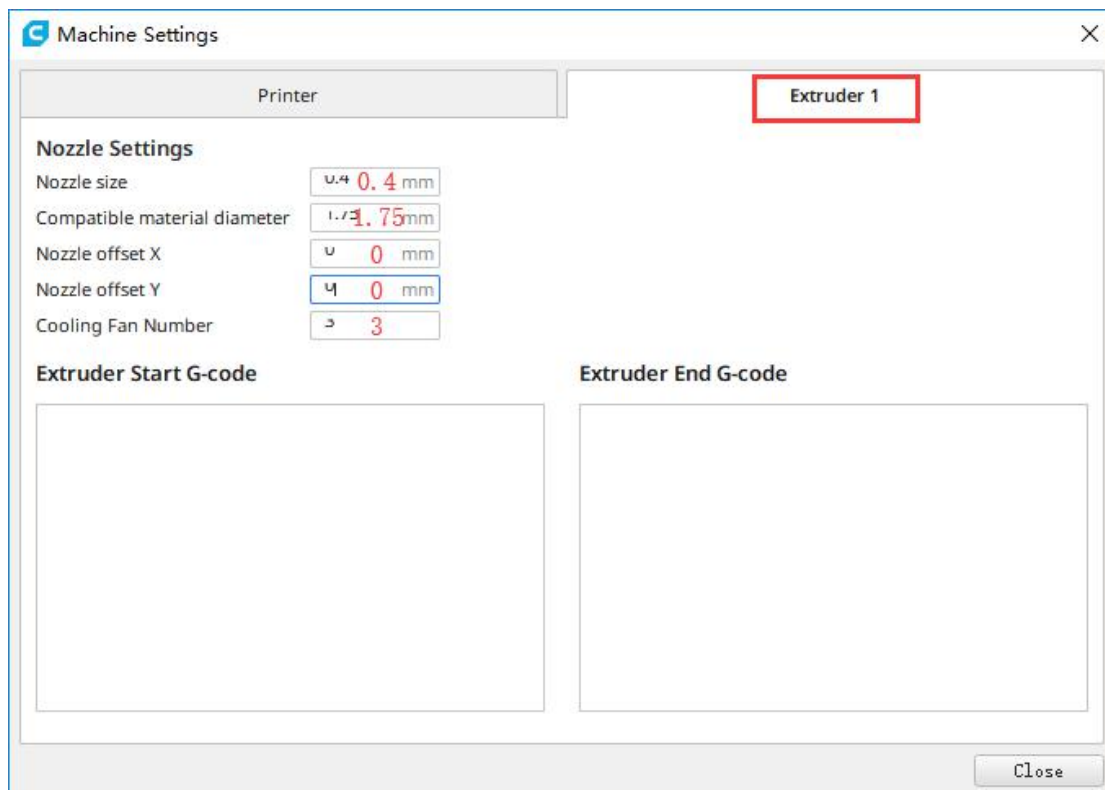
```
G28 ;Home
G29
G1 Z15.0 F6000 ;Move the platform down 15mm
;Prime the extruder
G92 E0
G1 F200 E3
G92 E0
```

End G-code

```
M104 S0
M140 S0
;Retract the filament
G92 E1
G1 E-1 F300
G28 X0 Y0
M84
M107 ; fan0 off
```

Next

Select extruder 1, set parameters as shown in the figure



Machine Settings

Printer

Extruder 1

Nozzle Settings

Nozzle size 0.4 0.4 mm

Compatible material diameter 1.75 1.75 mm

Nozzle offset X 0 0 mm

Nozzle offset Y 0 0 mm

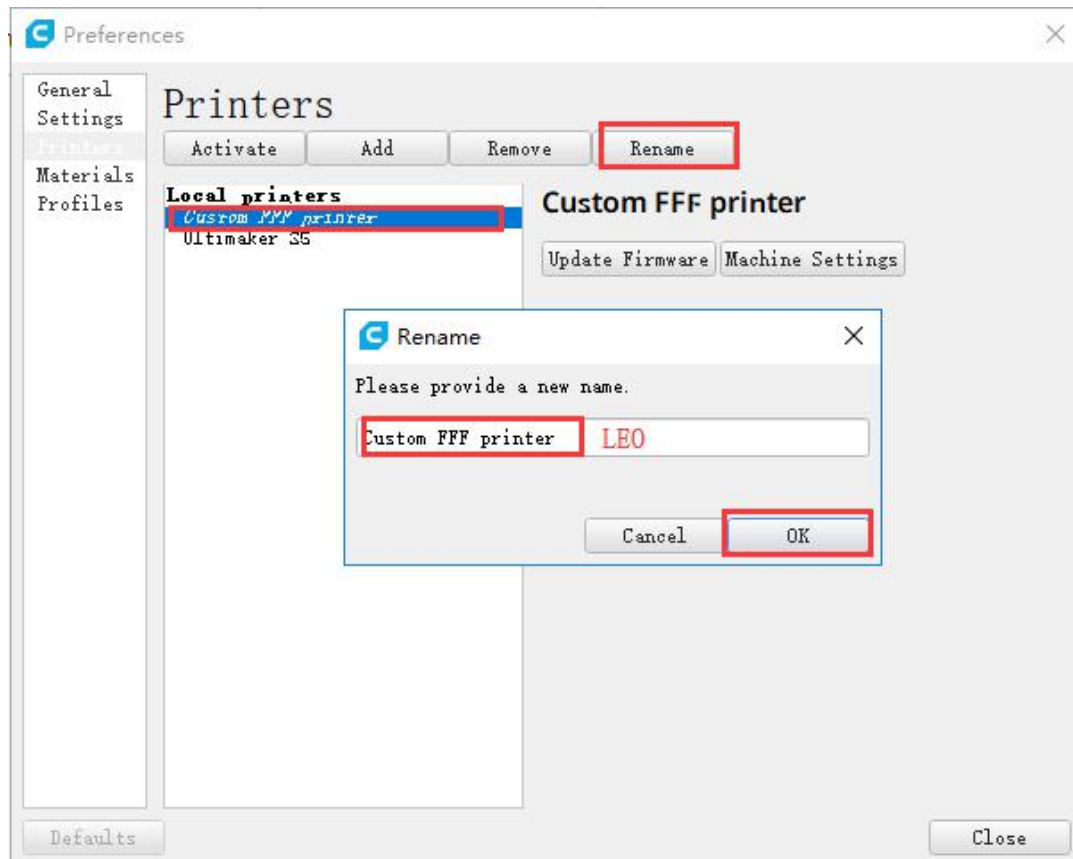
Cooling Fan Number 3 3

Extruder Start G-code

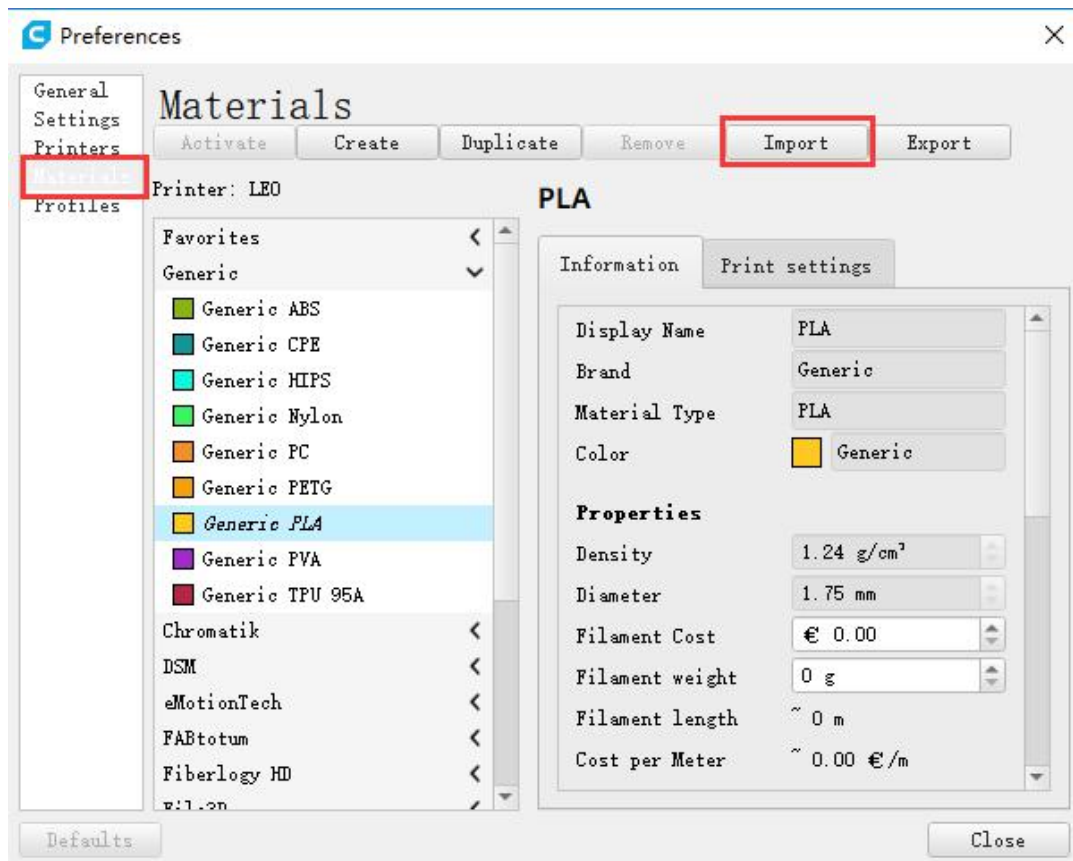
Extruder End G-code

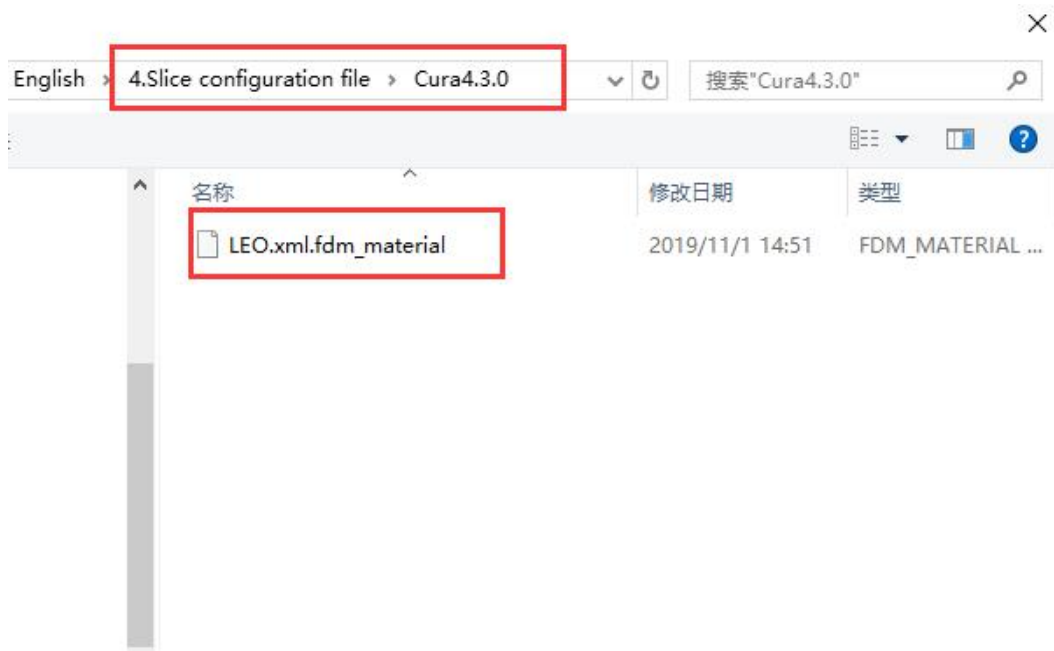
Close

Rename the printer

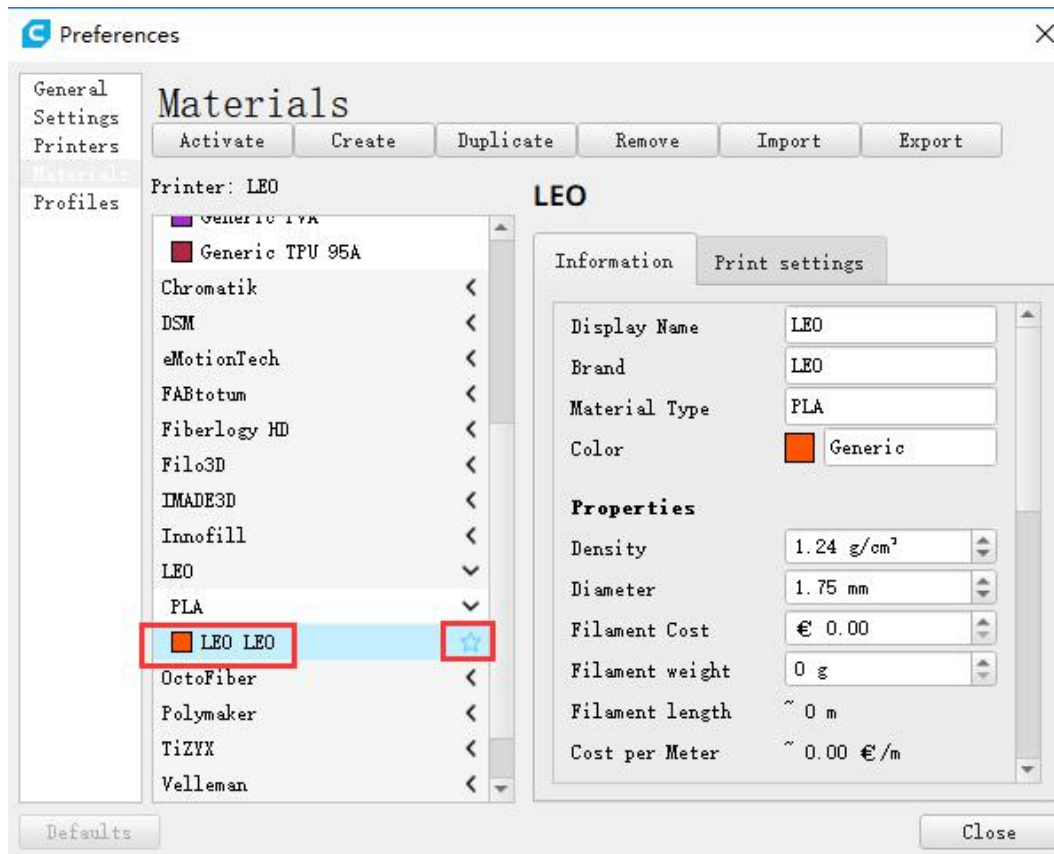


Import filament parameters

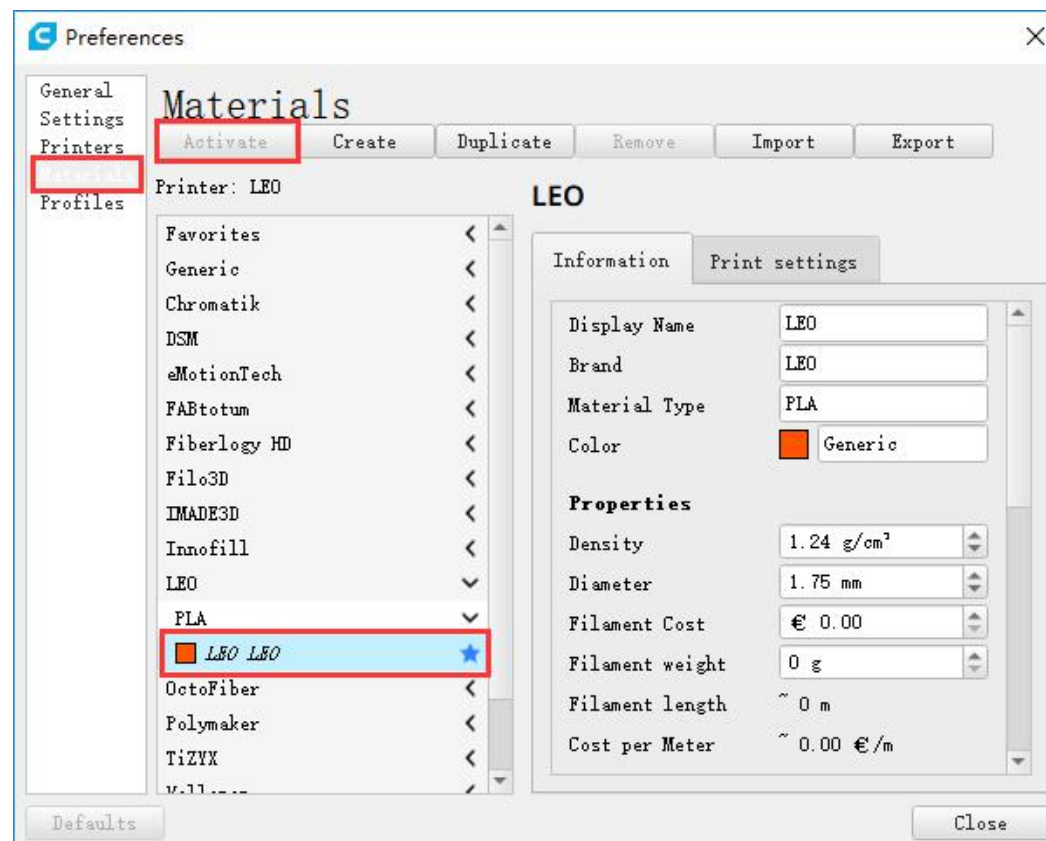




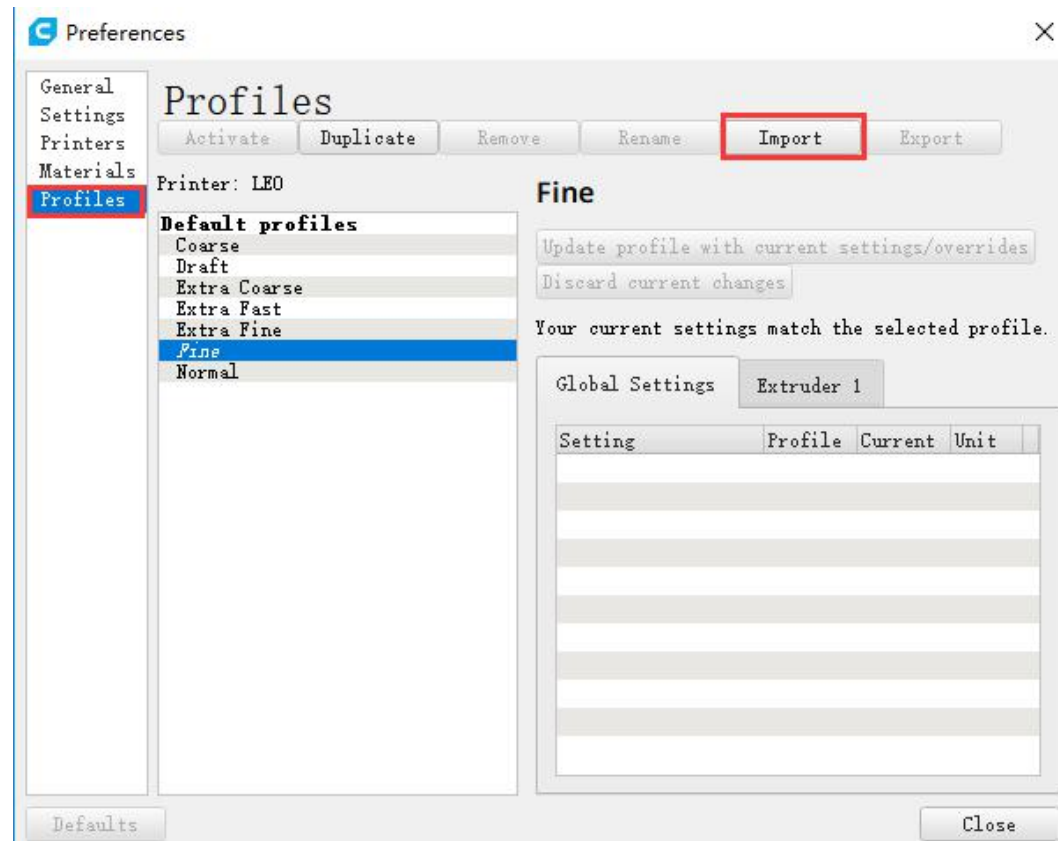
Click on LEO PLA and bookmark it

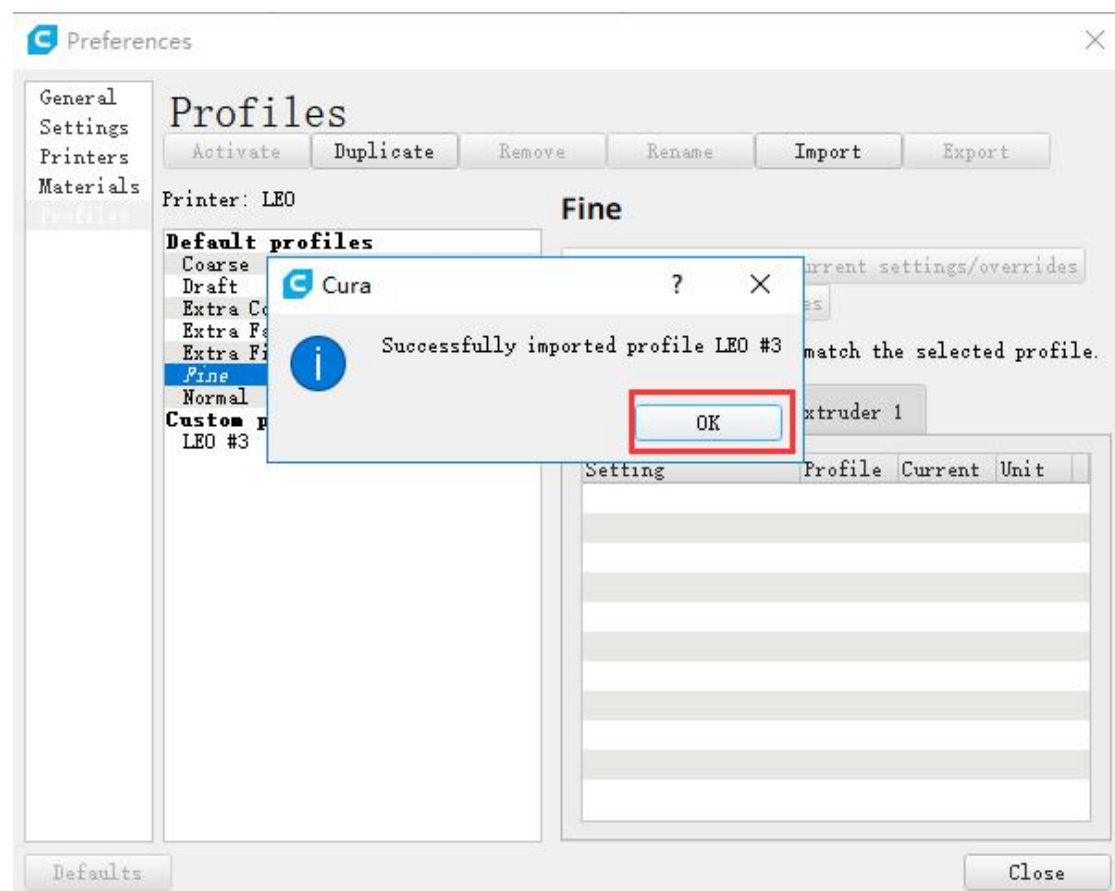
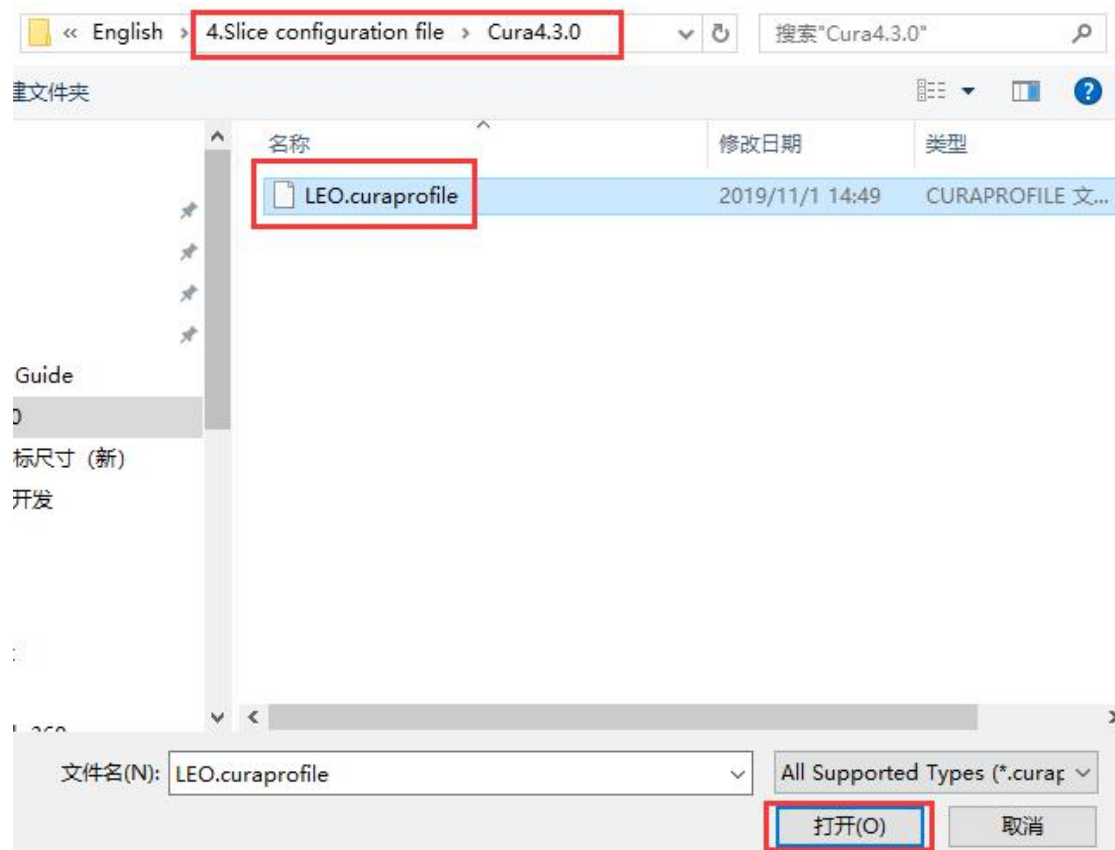


Activate LEO

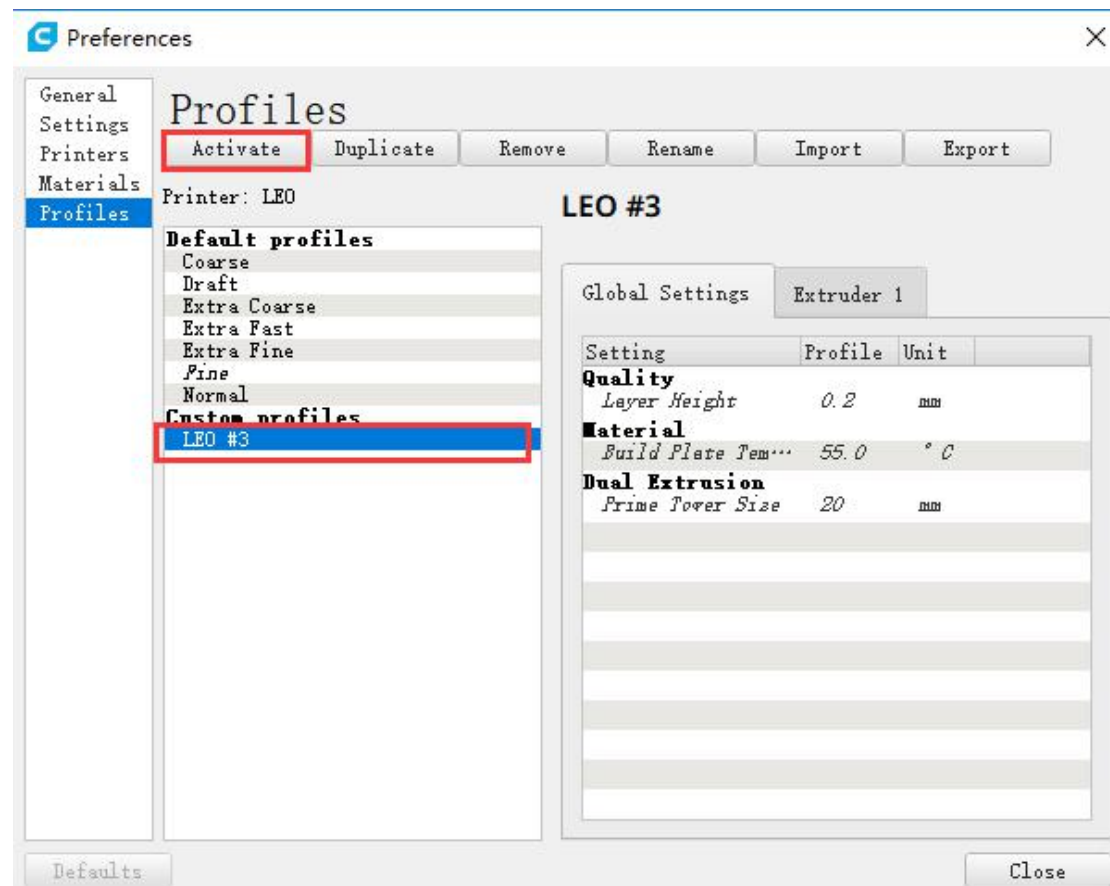


Import the profiles

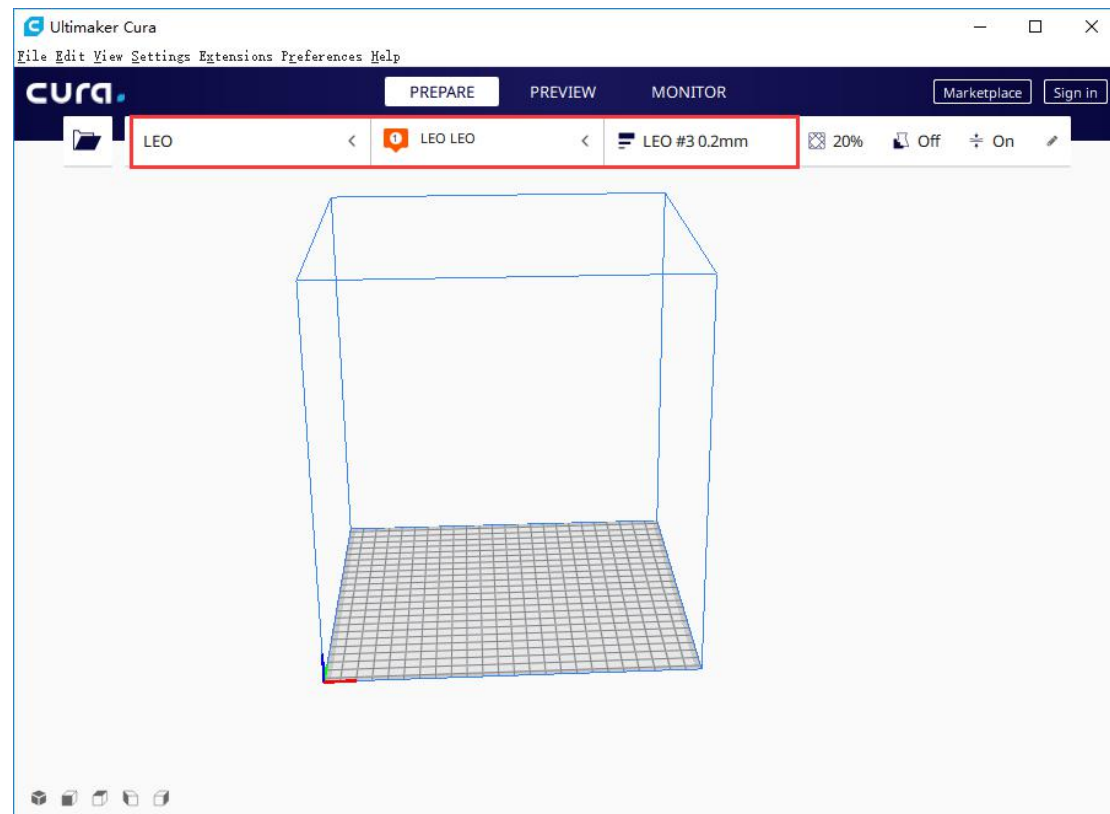




Activate LEO



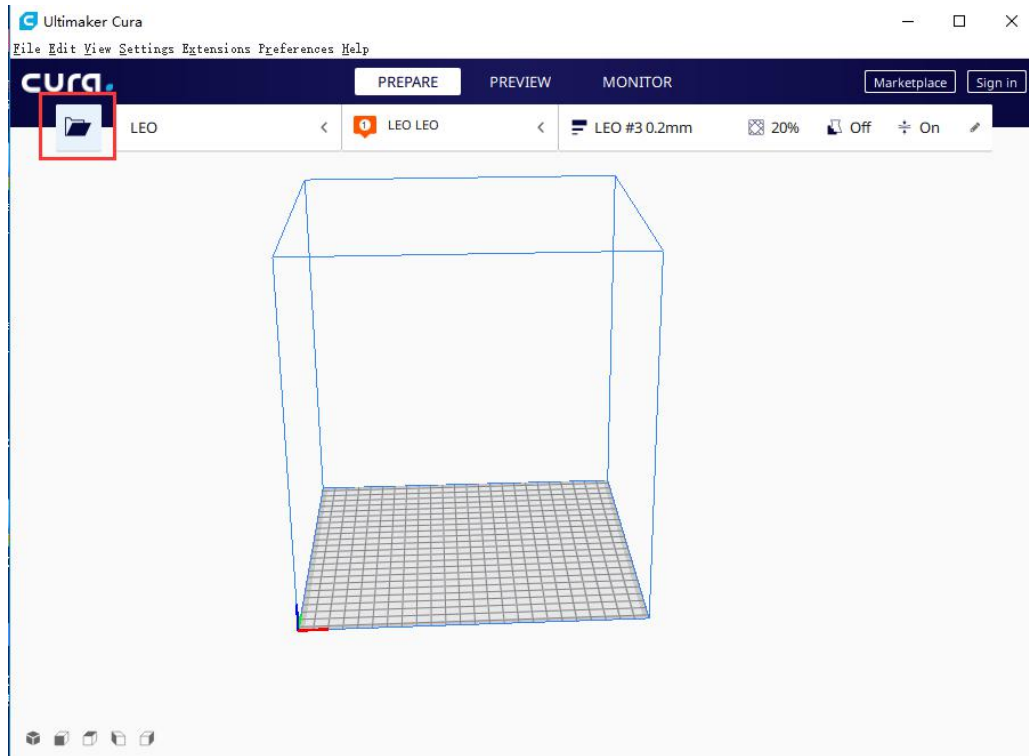
Finish



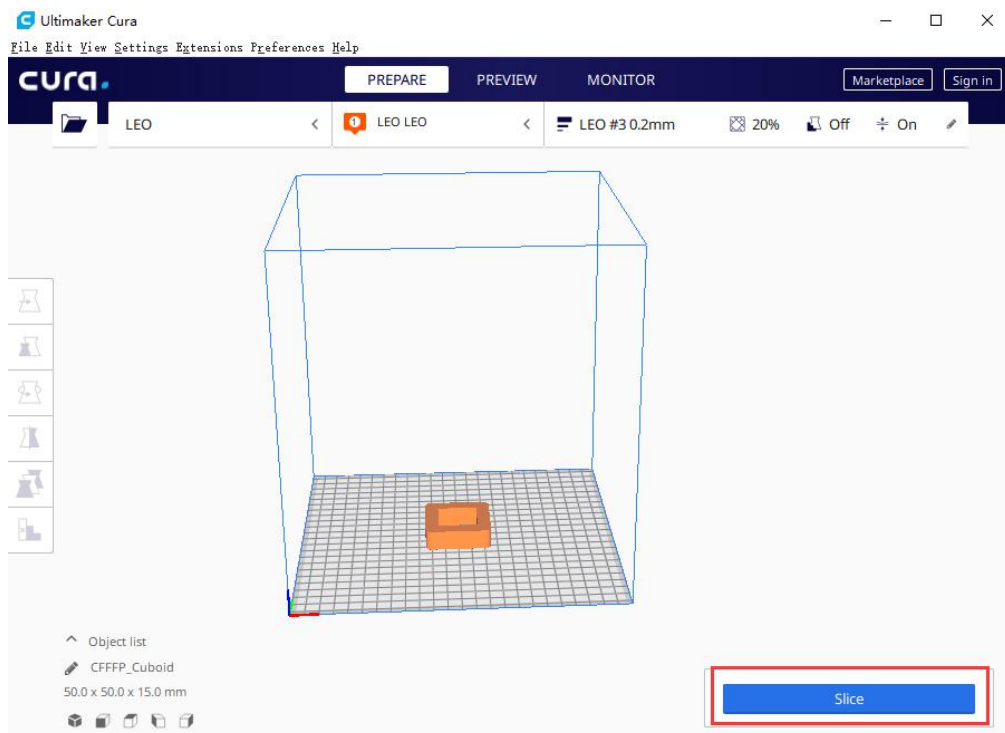
4.4 Start printing

1) Obtain the print model (the common way is to download and build the model on the Internet, and the file format mainly includes STL, AMF, etc.)

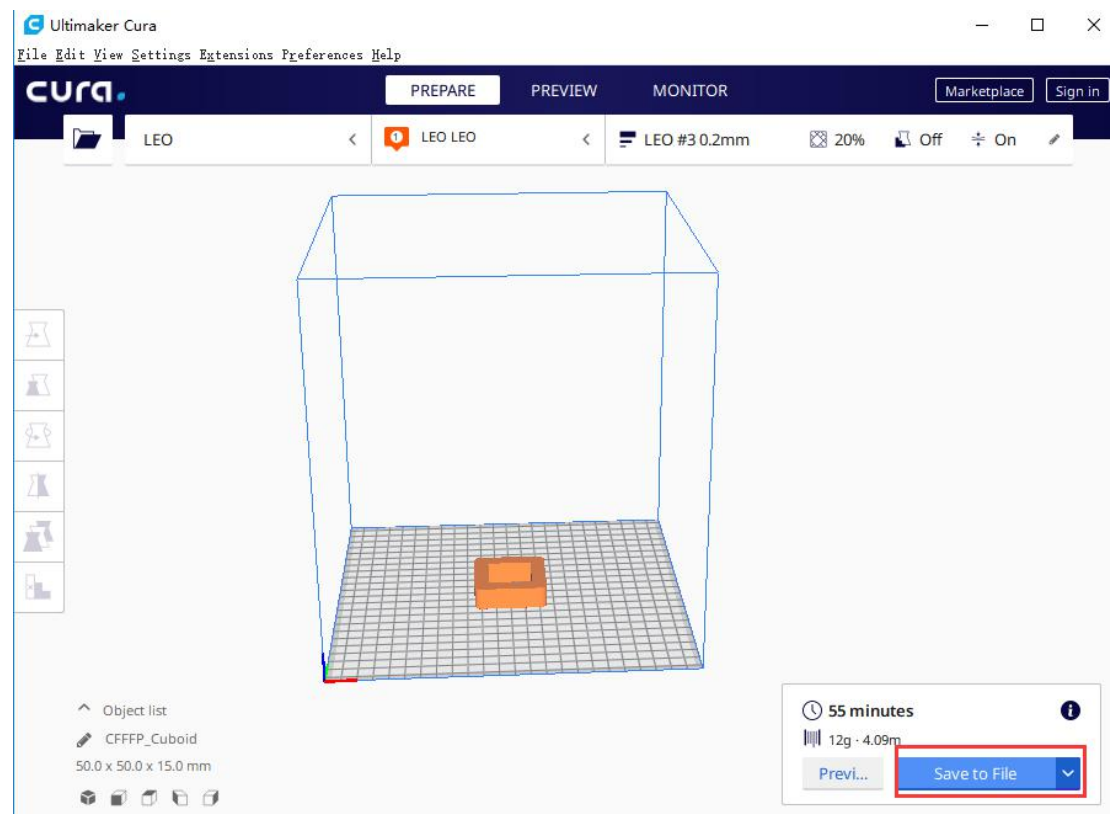
2) Open the printer control software  and click Import to Import the model



Click “Slice”

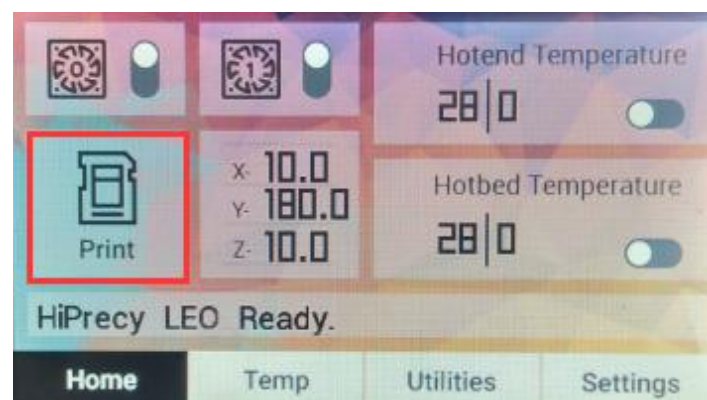


Click “Save to file”, Save the file to your computer

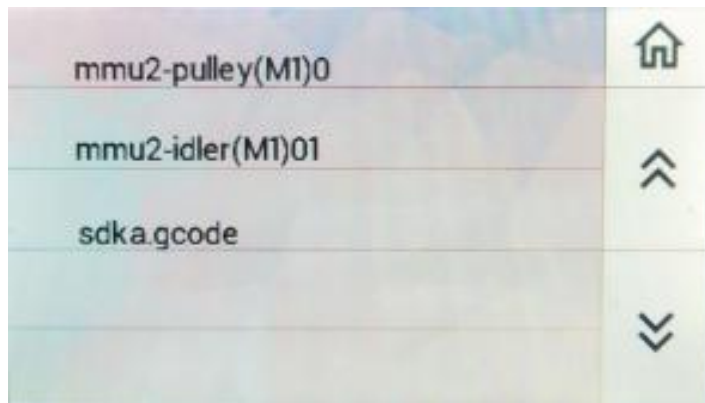


Copy to SD card, insert into printer, select model, start printing (rotate button "select options", press button "ok")

Print from SD



Select the model,click print



3) Print finished, remove model.

After the printing is finished, when the platform cools, remove the model (take the steel plate up and down from the hot bed, and bend the platform a little to remove the model easily).

V.Support and services

Dear valued customers,

Thanks for your order. Maybe this printing profile can be still improved for much better performance. Your advice is very important for us. Any question feel freely to contact us, we will do our best to help you.

Happy printing! Thank you!

Contact us:

Official website: www.hiprecy.com

Email: liyinginnovation@gmail.com

Facebook group: <https://www.facebook.com/groups/251194962455562/>