How to add fokoos odinsmart profile to cura
How to use fokoos odinsmart profile

目录

Overview

Fokoos odinsmart profile of cura is now pushing to cura git.

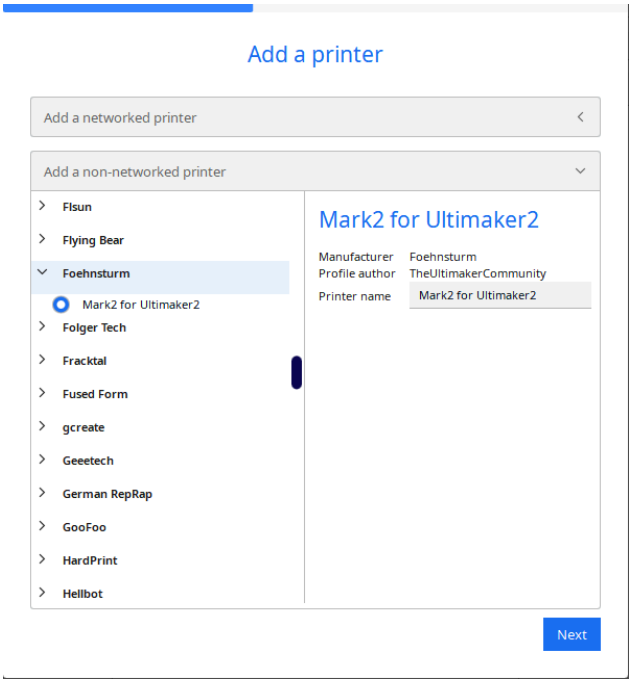


fig.1 no odinsmart device

If you cann't find out "fokoos odinsmart" when you do the "add a printer" operations, that is to said, the version of your cura are not include the files of the fokoos odinsmart profile. In that case, you can add the fokoos odinsmart profile to cura setup position manually.

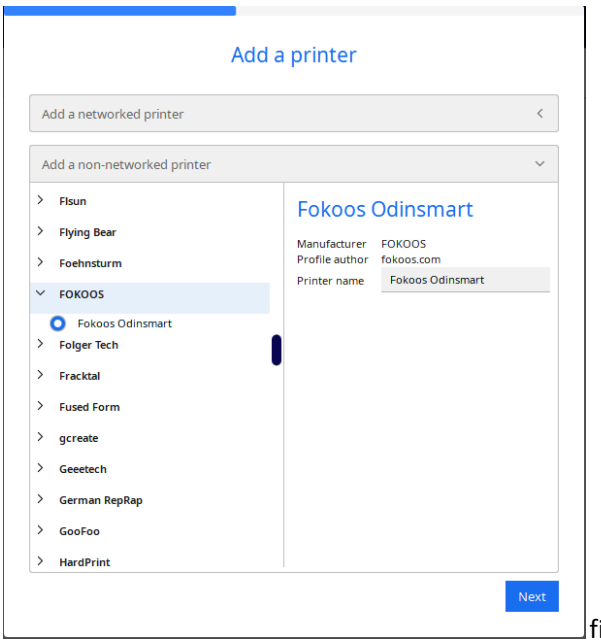


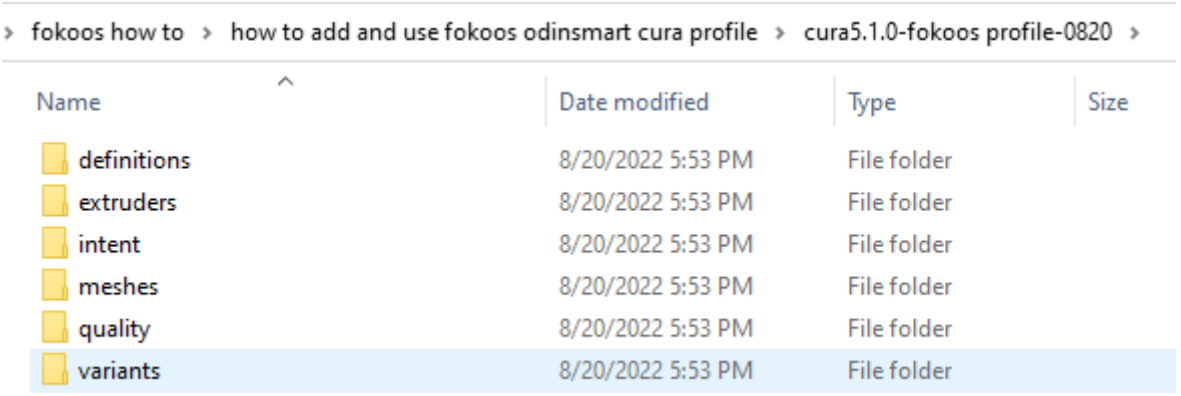
fig.2 odinsmart device

Note: you can get the files of the fokoos odinsmart profile from Fokoos.

Add profile to cura 5.1.0 manually

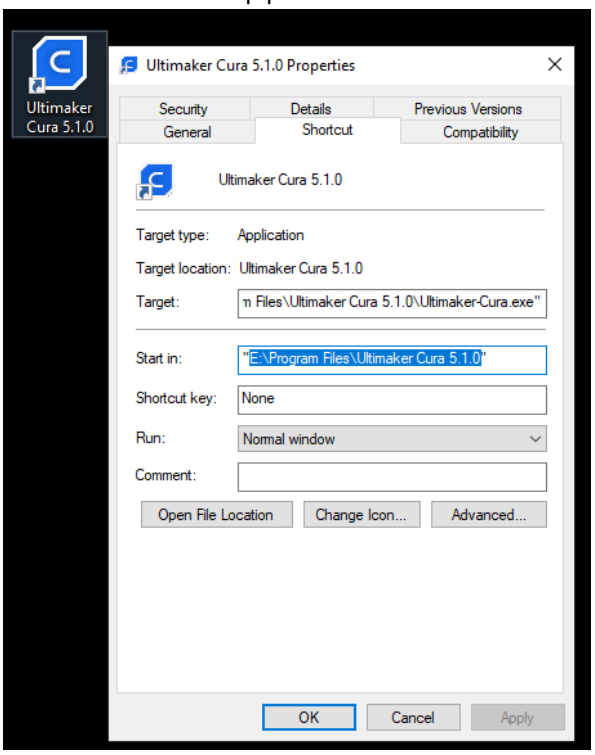
You must ask for the profile files of cura 5.1.0 from fokoos support.

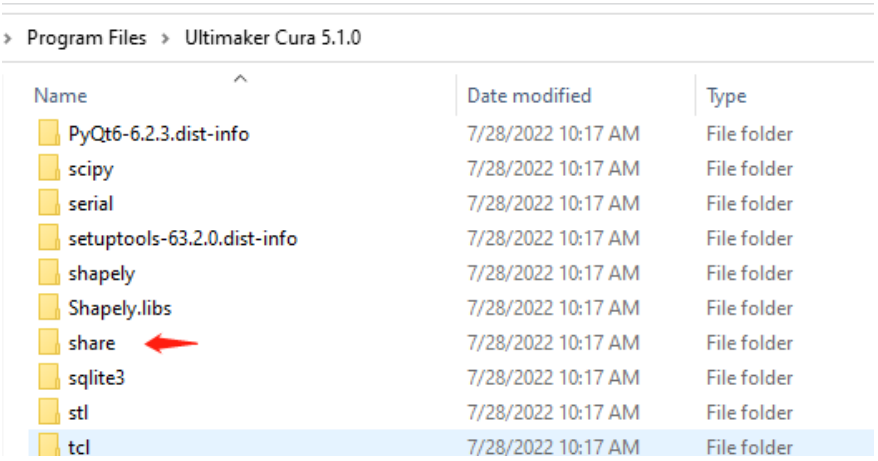
If you get the "**cura5.1.0-fokoos profile-xxxx.7z**", extract it. The content is as the following picture:



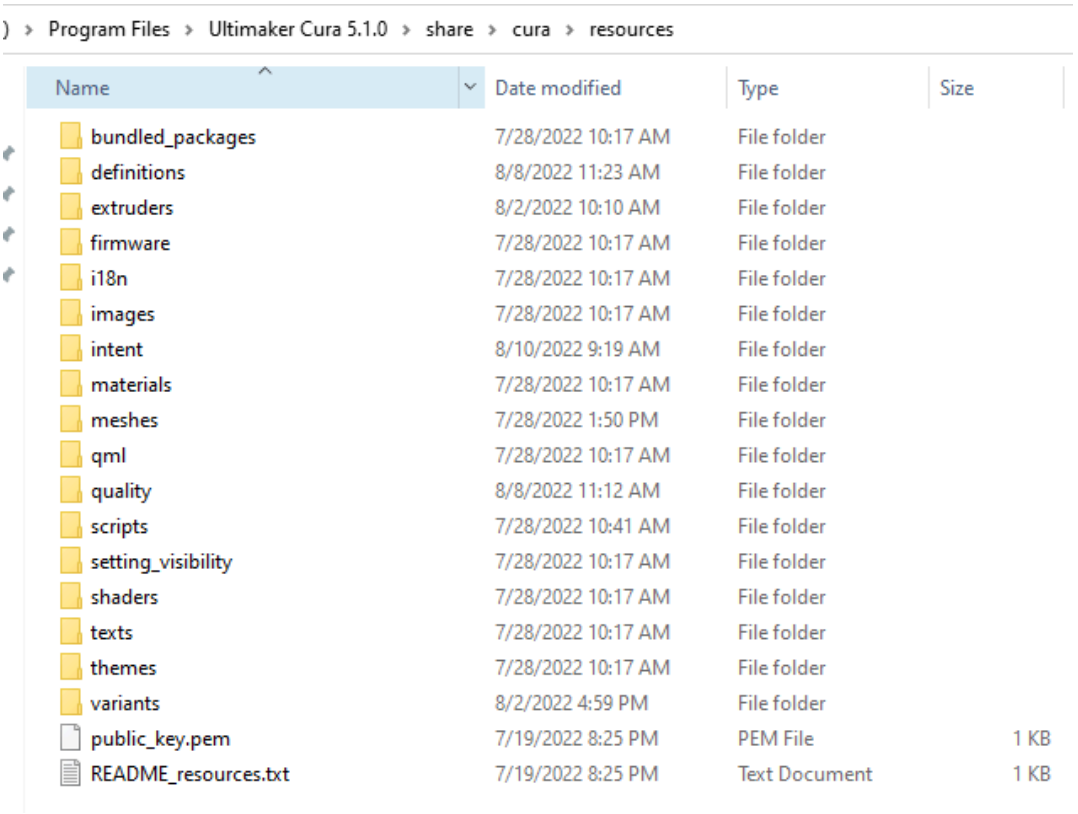
```
./cura5.1.0-fokoos profile-0820/
├── definitions
│   ├── fokoos_base.def.json
│   └── fokoos_odinsmart.def.json
├── extruders
│   ├── fokoos_extruder_1.def.json
│   └── fokoos_odinsmart_extruder_0.def.json
├── intent
│   └── fokoos_base
├── meshes
│   └── fokoos_odinsmart.stl
├── quality
│   ├── fokoos_base
│   └── fokoos_odinsmart
└── variants
    ├── fokoos_base_0.20.inst.cfg
    ├── fokoos_base_0.25.inst.cfg
    ├── fokoos_base_0.30.inst.cfg
    ├── fokoos_base_0.35.inst.cfg
    ├── fokoos_base_0.40.inst.cfg
    ├── fokoos_base_0.45.inst.cfg
    ├── fokoos_base_0.50.inst.cfg
    ├── fokoos_base_0.60.inst.cfg
    ├── fokoos_base_0.80.inst.cfg
    ├── fokoos_base_1.00.inst.cfg
    ├── fokoos_odinsmart_0.20.inst.cfg
    ├── fokoos_odinsmart_0.25.inst.cfg
    ├── fokoos_odinsmart_0.30.inst.cfg
    ├── fokoos_odinsmart_0.35.inst.cfg
    ├── fokoos_odinsmart_0.40.inst.cfg
    ├── fokoos_odinsmart_0.45.inst.cfg
    ├── fokoos_odinsmart_0.50.inst.cfg
    ├── fokoos_odinsmart_0.60.inst.cfg
    ├── fokoos_odinsmart_0.80.inst.cfg
    └── fokoos_odinsmart_1.00.inst.cfg
```

Find out the Cura 5.1.0 setup position

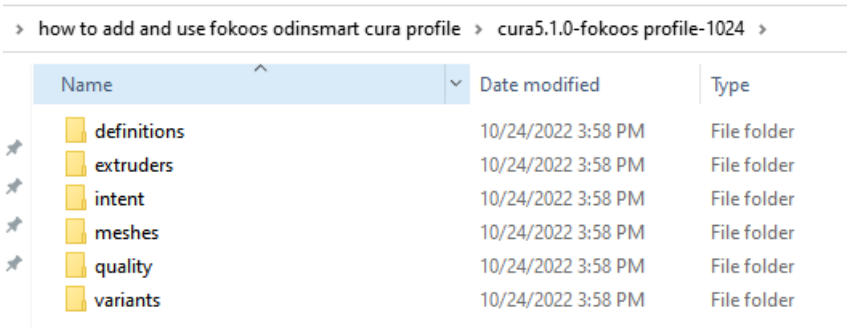




Enter the “Ultimaker Cura 5.1.0\share\cura\resources” folder,



Copy the all contents of cura5.1.0-fokoos profile-xxxx,

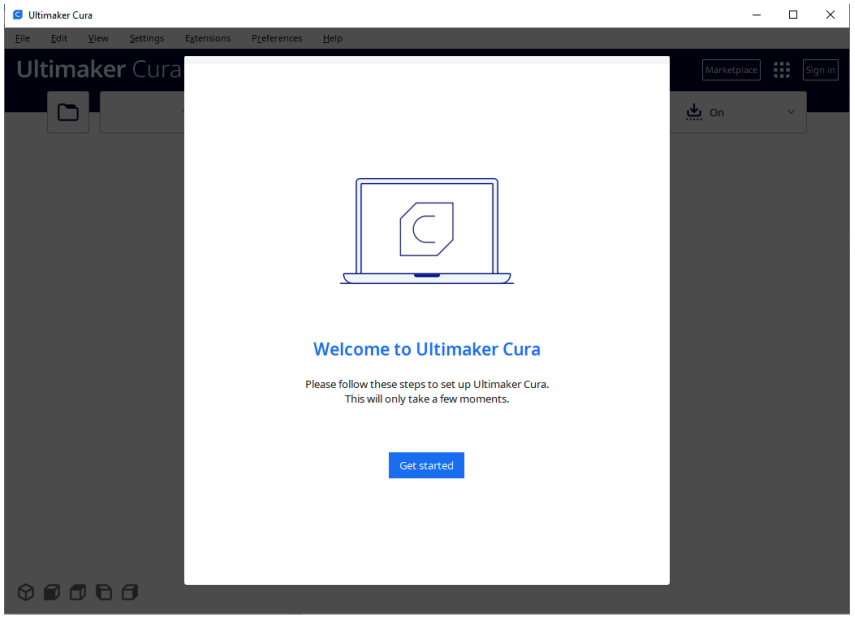


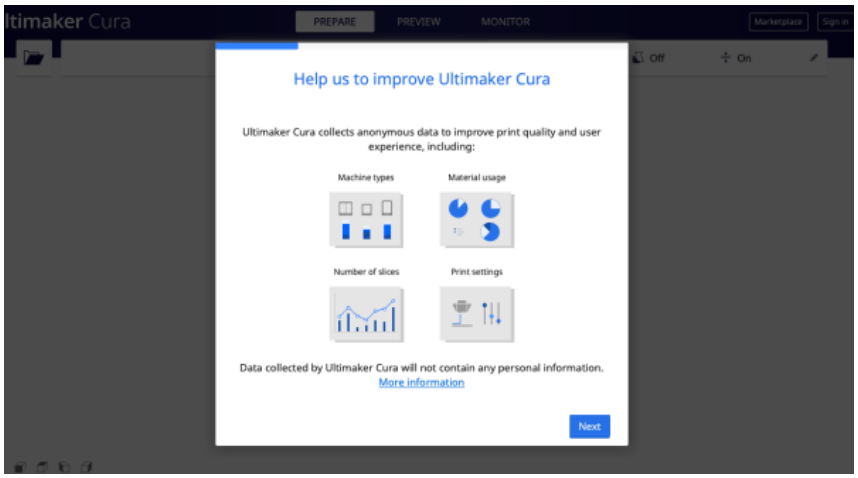
and put all into the “Ultimaker Cura 5.1.0\share\cura\resources” folder. Please check if the copy operations is OK.

Use odinsmart profile in cura 5.1.x

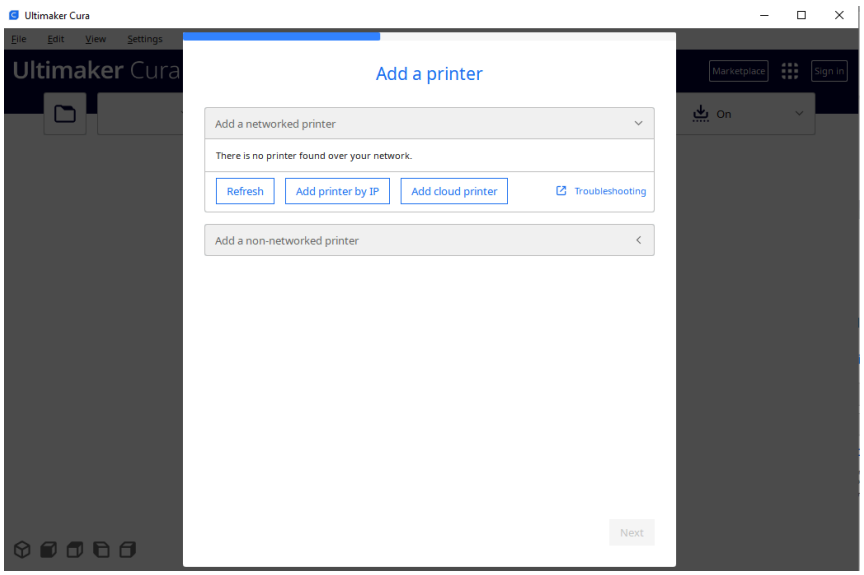
3.1 Download and setup cura 5.1.x according your PC system

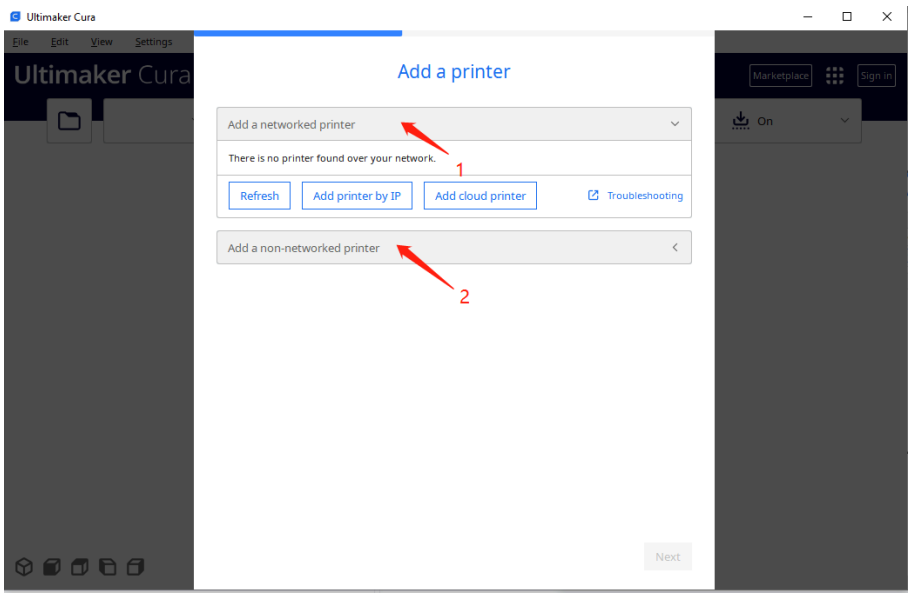
Address : https://github.com/Ultimaker/Cura/releases



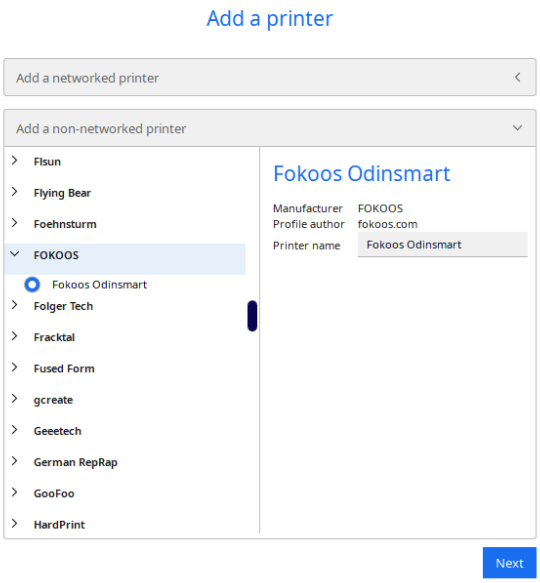


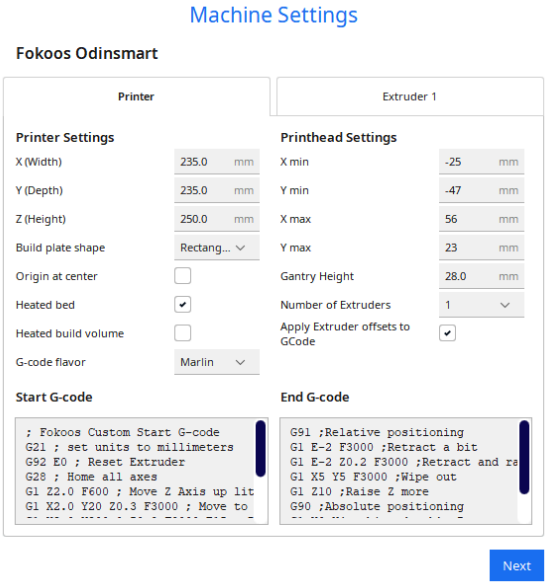
3.2 Add “fokoos odinsmart” machine



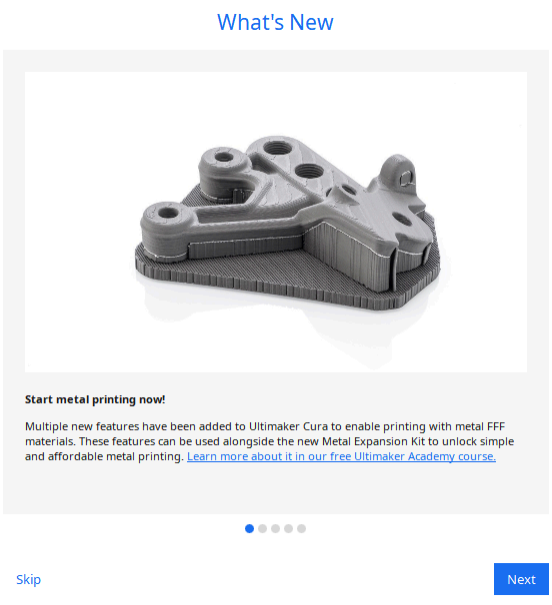


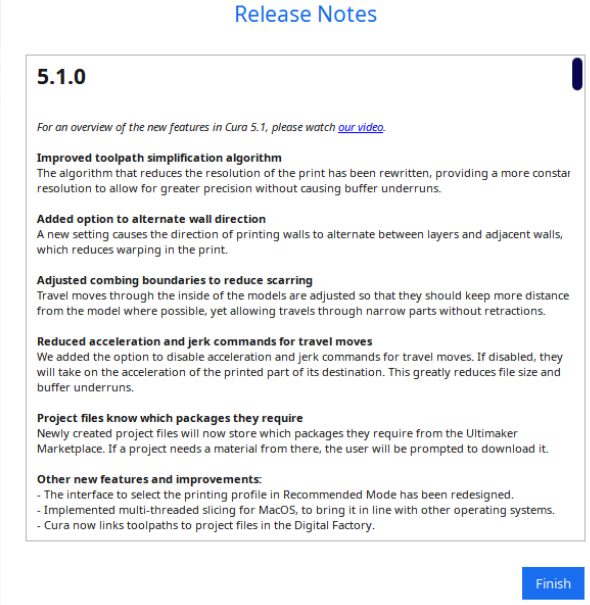
Click “1” or “2” from above picture, and find out “fokoos odinsmart” from below picture, and click “next” to do the adding operations.



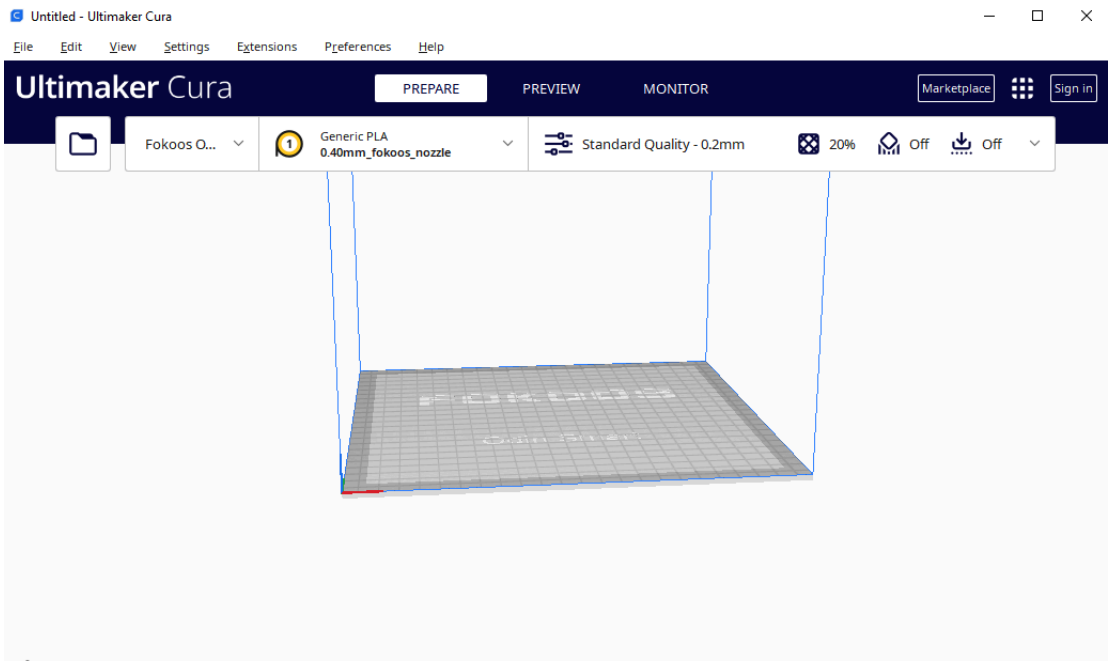


Note: If you cannot find out “fokoos odinsmart”, please follow as “2.Add profile to cura 5.1.0 manual” to deal with that conditions.





Click “skip” and then “Finish”, then the below picture is showing.

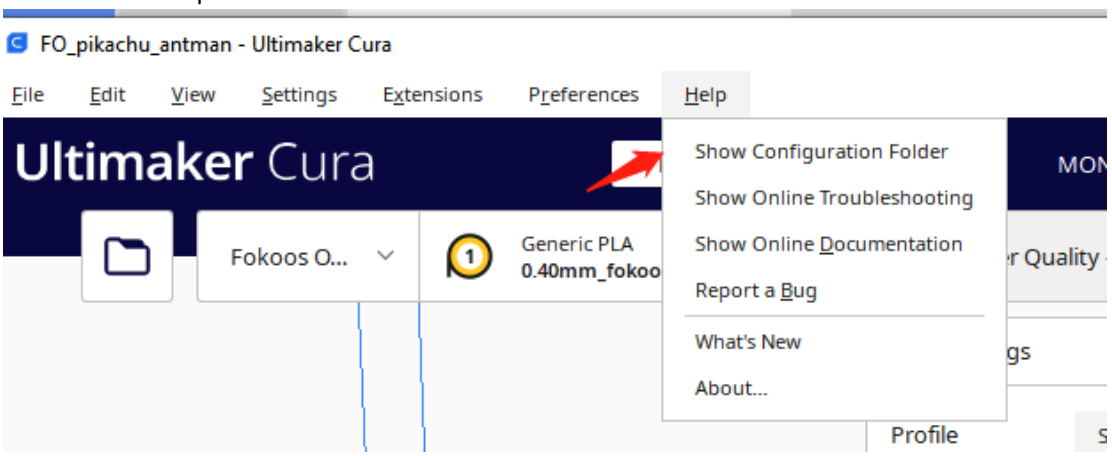


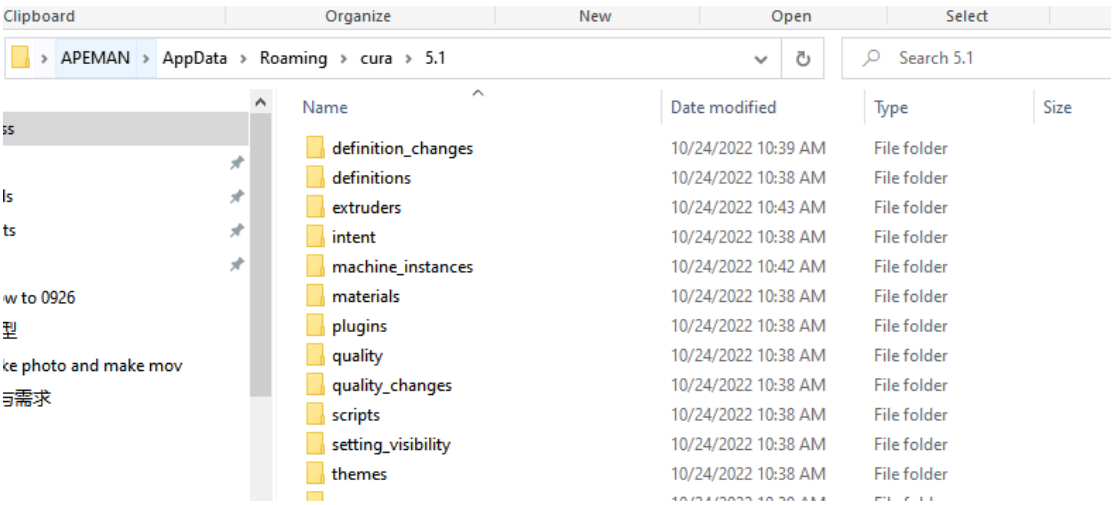
3.2 Update profile manually

Sometimes, we may release an update version of the cura profile. You can update with the following way.

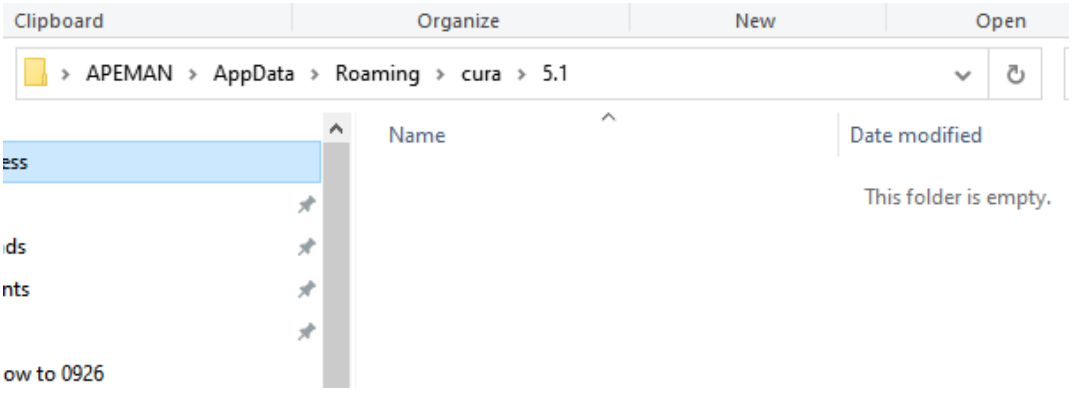
Clean all of th cura configuration

If you have added a machine in cura, the configuration for the cura is saved in a directory. You can find out the configuration folder in “Help menu”.





Delete the content of the cura configuration.

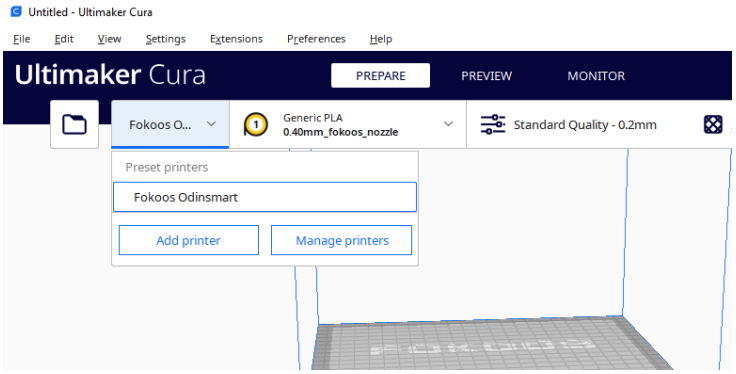


Add profile to cura manually
Refer to Add profile to cura 5.1.0 manually

Use odinsmart profile in cura
Refer to Use odinsmart profile in cura 5.1.x

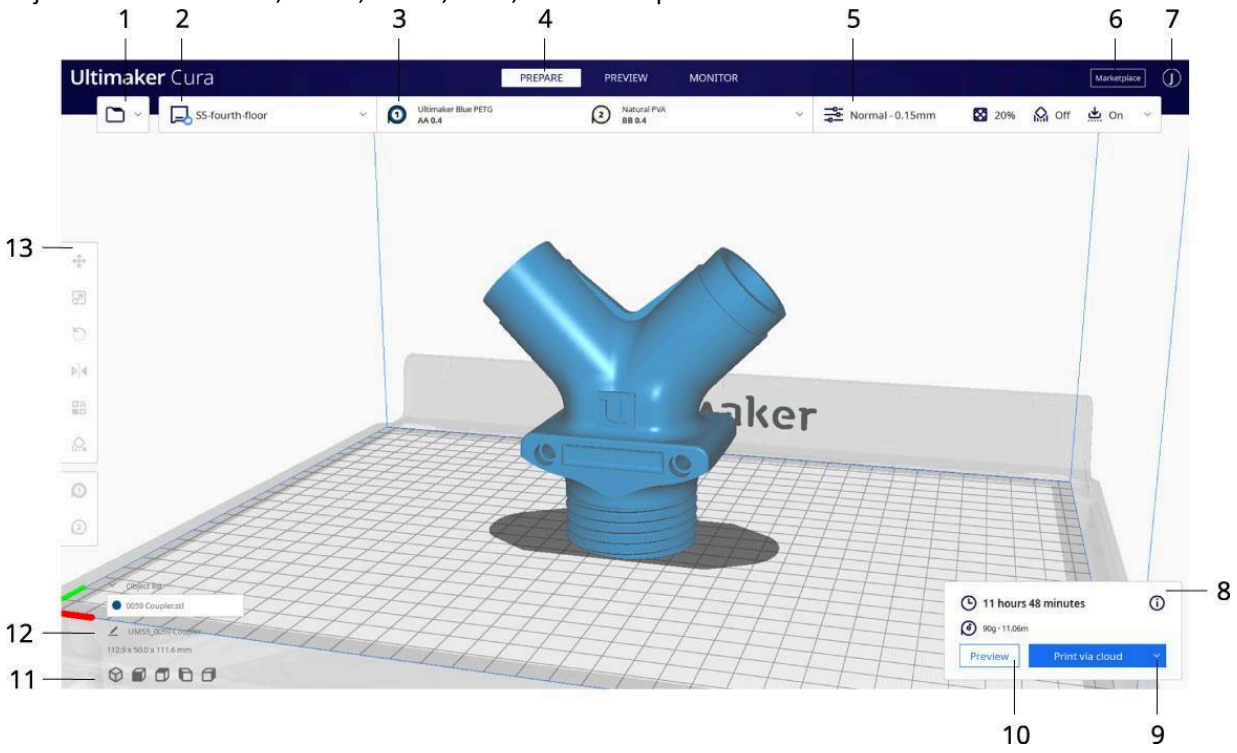
3.3 Interface overview of Ultimaker Cura
Refer to “https://support.ultimaker.com/hc/en-us/articles/360011838219-Interface-overview-of-Ultimaker-Cura”.

Open file. Opens a 3D file.
Printer selection panel. Displays the selected printer and add printer.



Configuration panel. Contains the material and print core setup.
Stages. The prepare, preview and monitor stage. Each stage is arranged to efficiently go through each 3D printing step.

Print settings panel. Contains all slice strategy parameters.
Marketplace. Contains plugins and material packages.
Ultimaker account. Allows access to cloud functionality, Marketplace plugins and print profiles, backups and more.
Action panel. Contains an action button dependent on the current stage.
Print over network. Save to removable disk or save to file.
Preview. Proceeds to the next stage, the preview stage.
Camera position tool. Easily positions the camera to default show default viewing angles.
Model information. Contains the 3D model name and dimensions of all printable models on the build plate.
Adjustment tools. Move, rotate, mirror, scale, and more options.

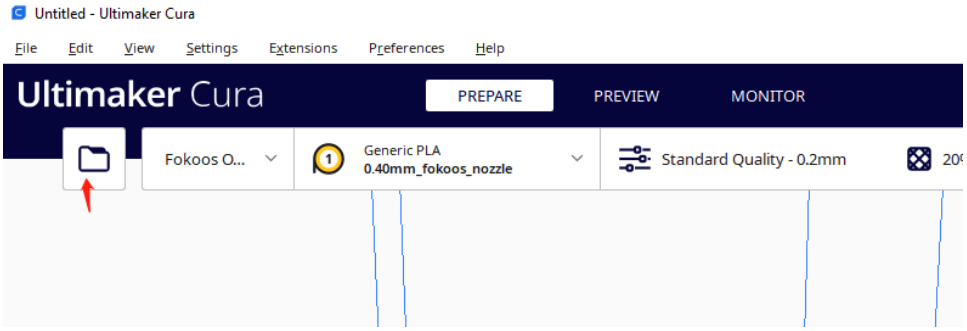


Slice from 3d modle to gcode file in cura 5.1.x

4.1 Open 3D files

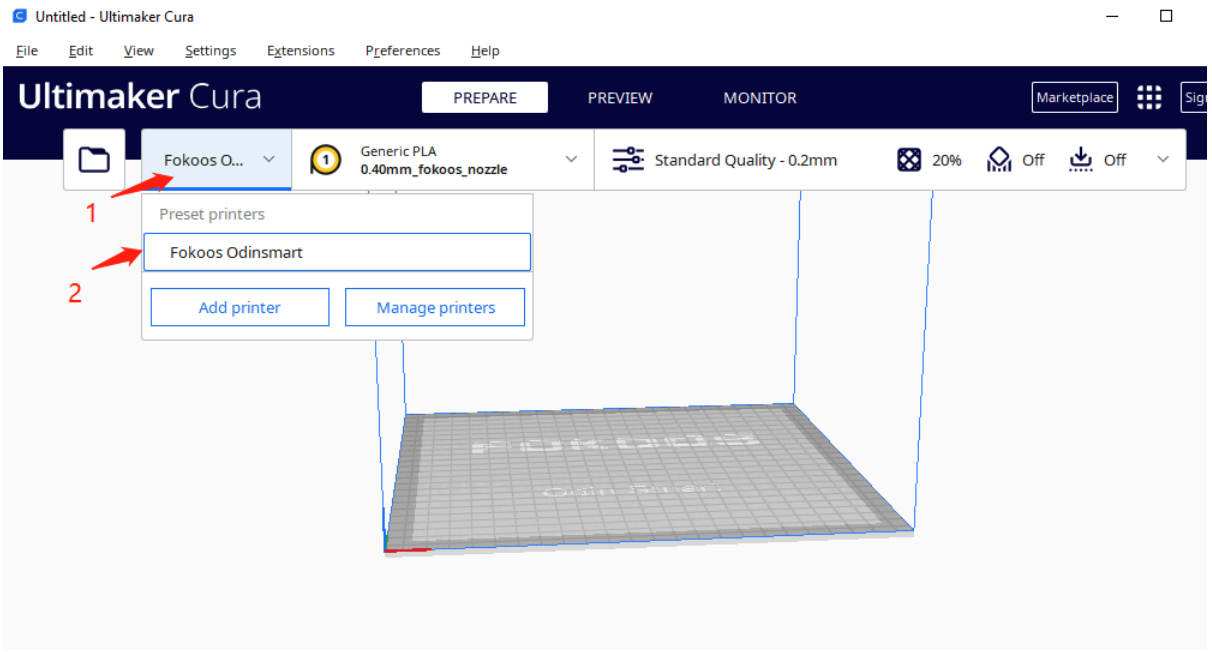
The easiest way to open 3D models is by the ‘open file’ button. The button is in the top left corner and is the first button in the stage menu. Select the model you want to prepare for printing and open it. The model will now be loaded and shown on the 3D viewer.

Refer to “https://support.ultimaker.com/hc/en-us/articles/360012475599”



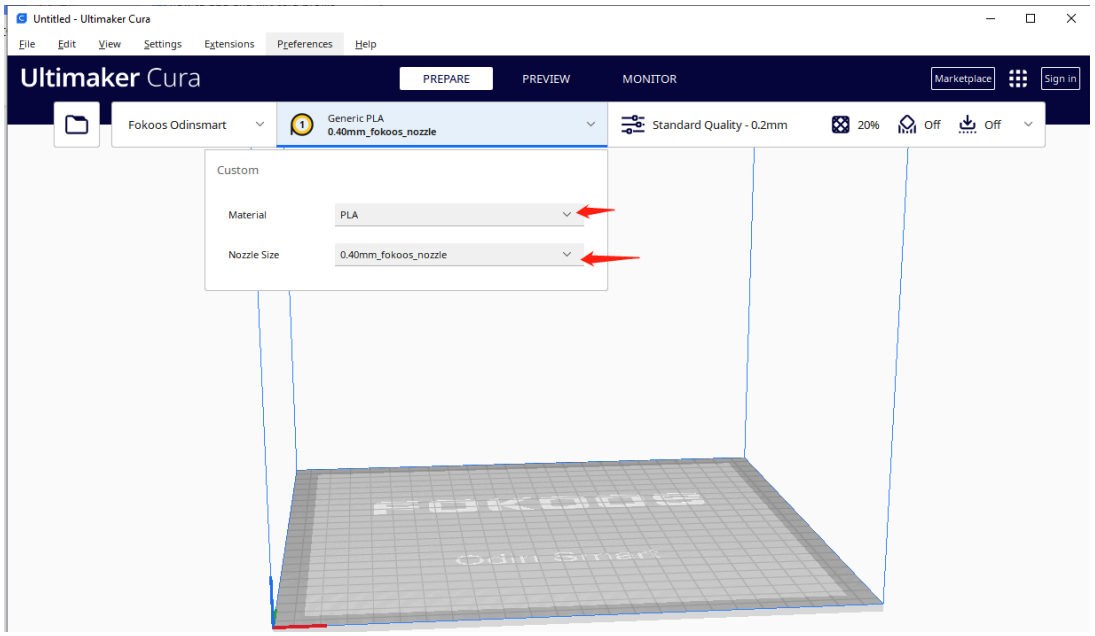
4.2 Select the printer and configure your setup

The second button in the stage menu contains the printer selection panel. Select the printer you would like to use. Of course, select to use “Odinsmart”.



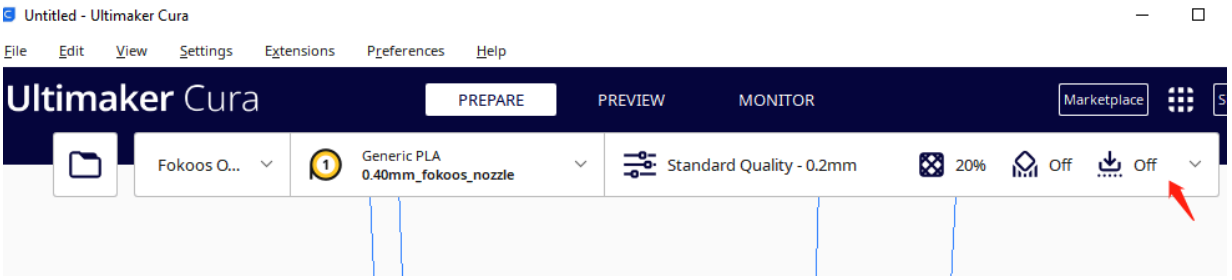
The third button in the stage menu contains the configuration panel. Once opened, the panel displays your current print core/nozzle and material setup.

Using the preferred material and the preferred nozzle size are as below GUI. The preferred material is PLA, so use the default PLA. The preferred nozzle size is 0.40 mm, so use the default is 0.40 mm.



4.3 Configure print settings

The rightmost button in the stage menu contains the print settings panel, which includes all settings that define the printing strategy. By default, it opens in "**the recommended mode**". This mode is ideal if you want to do a quick print with optimized printing profiles.



Print settings are the input for Ultimaker Cura to form the printing strategy to print your 3D models. The print settings can be found in the Print settings panel during the Prepare and Preview stages.

Each print setting contains a parameter that controls your printing strategy when converting your models into g-code for the 3D printer to understand. All parameters combined form the print profile your model will print with

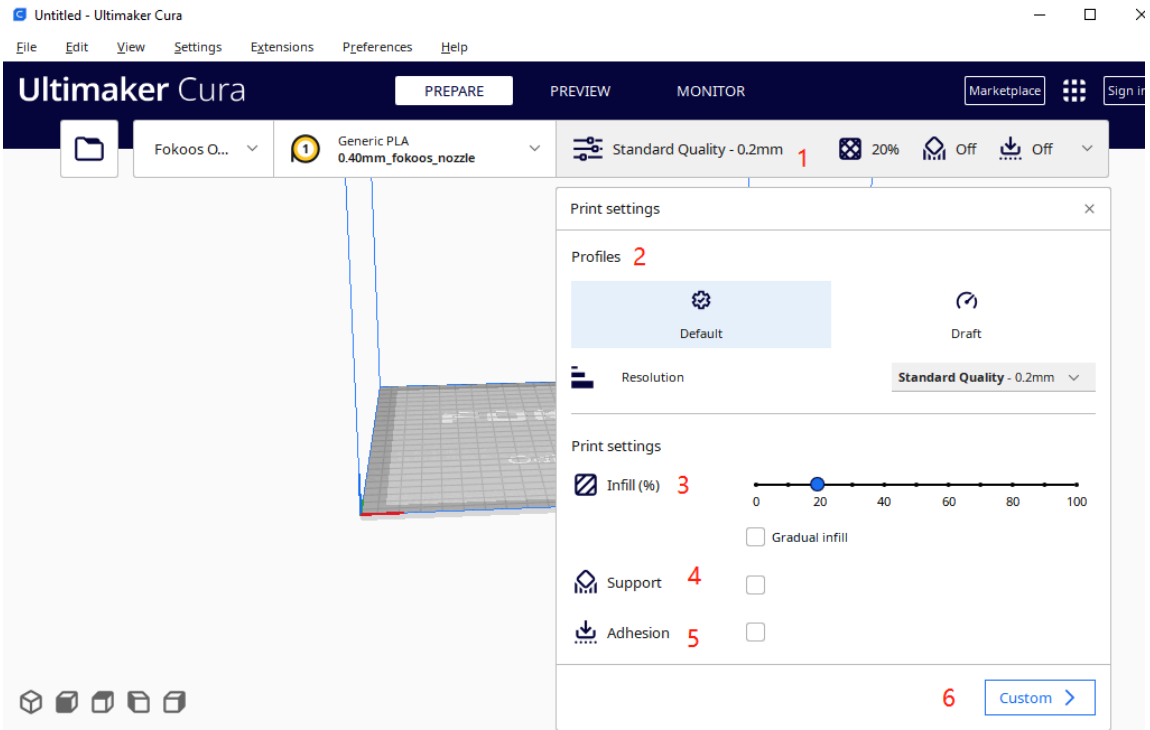
A print profile consists of the complete list of print settings and the parameters set, which forms the 3D printing strategy.

Print profile settings can be adjusted using the **recommended mode** or **custom mode**. Note: The availability of print profiles is dependent on the 3D printer, nozzle and material configuration currently active.

Recommended mode is perfect for **beginners**, while **custom mode** offers more settings for **experienced** users.

4.4 Recommended mode

This mode is ideal if you want to do a quick print with **optimized printing profiles**. There are a few parameters you can set:



1.**Print settings panel.** This panel shows the current printing strategy at a glance, click it to view the entire panel

2.**Print profiles**. The available profiles for the current configuration are visible. Some Ultimaker 3D printers offer intent-based profiles, fine-tuned to meet specific needs. **In “Odinsmart”, profiles are divided into two**

groups: "Default" and "Draft". The ”Draft” group is with the intent of significant print time reduction.

3.**Infill**. The infill slider can be used to easily set the overall model strength

4.**Support**. Enable or disable automatically generated support structures, with either of the available extruders, to get reliable and successful prints when necessary

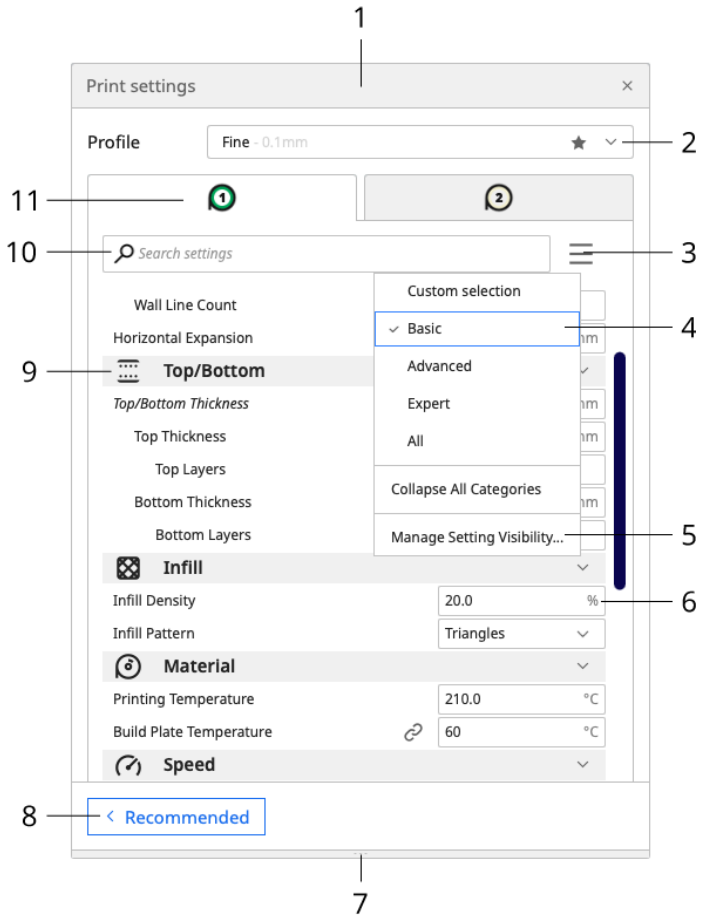
5.**Adhesion**. Enable or disable additional adhesive printed parts, the type of adhesion is automatically set by the print profile

6.**Custom mode**. This will open **the custom mode** to manually **fine tune** printing profiles

4.5 Custom mode

Depending on your machine, print core(nozzle size) and material configuration, a variety of profiles are available to print out of the box. These profiles are a perfect start point to base your own custom profiles on. These profiles provide variable layer heights, print speeds, and many more settings.

4.5.1 Overview



Print settings panel. This panel shows the current printing strategy at a glance, click it to view the entire panel

Profile selector. This contains a list of available profiles suitable for the current configuration.

In “Odinsmart”, profiles are divided into two groups: "Default" and "Draft". The ”Draft” group is with the intent of significant print time reduction.

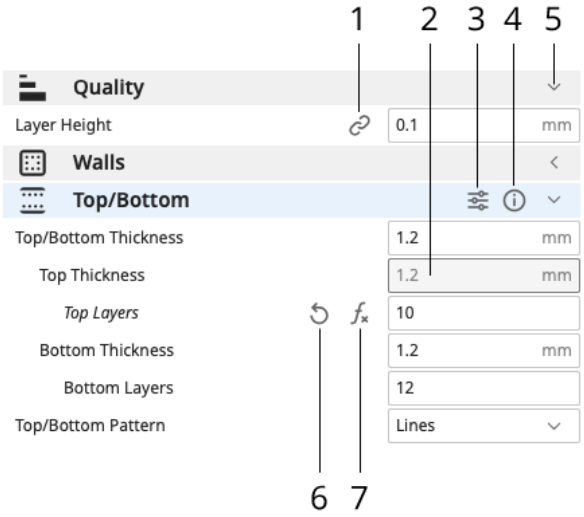
3. **Setting visibility menu**. This menu has the ability to quickly view or hide a preset of print settings
4. **Visibility profiles**. Basic, advanced and expert views, increasing number of available settings with every step
5. **Manage settings visibility**. Opens the preferences panel
6. **Setting parameter**. These parameters define the setting values, each is indicated with the right unit type
7. **Expand window**. Drag the handles to expand the window to see more settings at once
8. **Mode selector.** toggles between custom and recommended mode

9. **Setting category.** All settings are categorized on printed parts
10. **Setting filter**. Start typing to immediately filter settings by name
11. **Extruder tab**. Values of the selected extruder will be changed

4.5.2 Custom mode icons and indicators

Ultimaker Cura indicates relations between custom settings with icons that indicate their relation. Settings visible to the user can be linked, automatically calculated, unavailable or hidden. This is the full list of icons and indicators used in the custom mode:

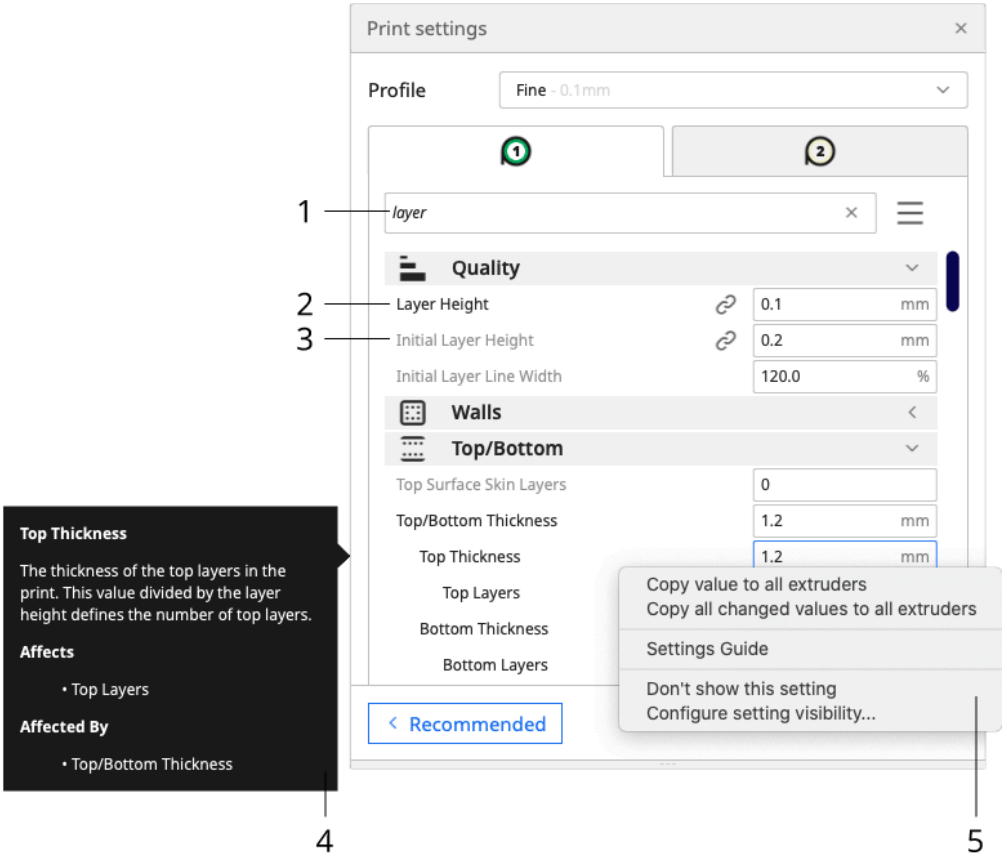
1.**Linked setting**. Settings with this icon are linked between extruders, the setting will always be equal between all extruders
2.**Greyed out setting**. This setting is overwritten by a child setting. Reset the child setting to alter this setting
3.**Gear icon**. Opens the setting visibility preferences
4.**Information icon**. Shows a hidden setting influences the printing strategy. This only occurs when you accidentally change a setting and hide it afterward
5.**Categories**. Can be collapsed to hide them temporarily when focusing on different aspects
6.**Reset icon**. Resets the value to its default or parent setting
7.**Calculated icon**. Indicates the setting is normally calculated from a parent setting



4.5.3 Setting filter

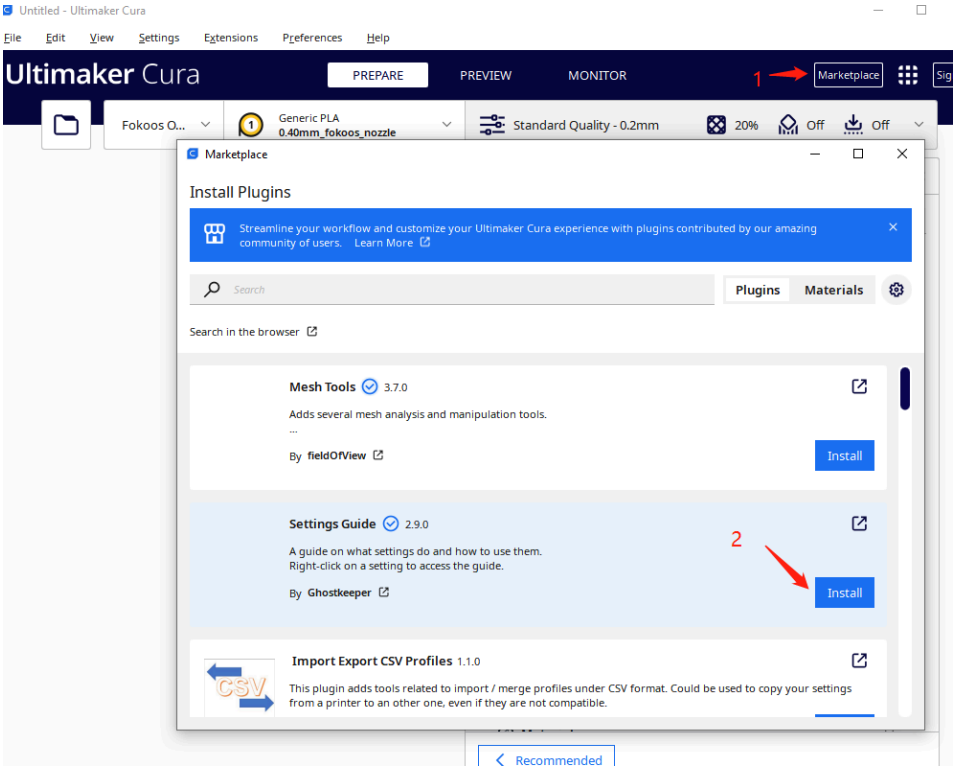
Ultimaker Cura has a lot of settings that are easiest to find using this filter. Simply start typing to filter both already visible and hidden settings.

1.**Setting filter**. Only settings with the phrase ‘layer’ are visible
3.**Active settings**. These are displayed solid. They will still be visible after clearing the filter
3.**Hidden settings**. These are displayed greyed out. They will remain hidden after clearing the filter
4.**Tooltip**. Shows useful setting information when hovering the mouse over a setting
5.**Quick menu**. Right-clicking a setting has options to copy the settings’ value, hide/show it and to open the setting visibility preferences



4.6 Install settings guide from marketplace

Because so many settings, you need a guide on what settings do and how to use them.



4.7 Important parameters about printing quality

The temperature, retraction, speed, and other parameters maybe affect the printing quality when slicing using, especially printing at higher speed.

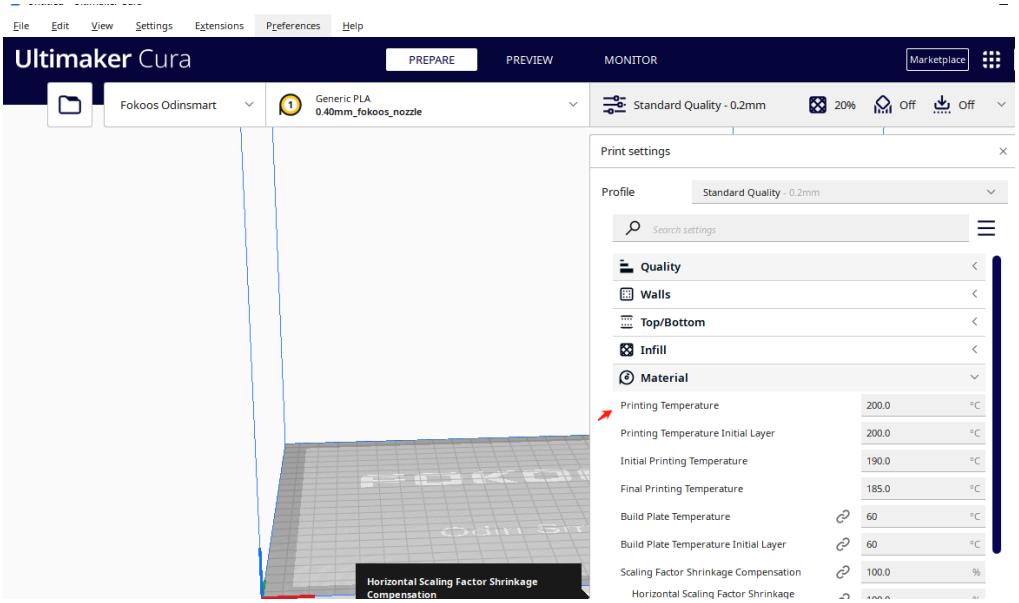
First of all, you must set the right temperature,retraction,and speed settings , you have to calibrate the settings accordingly every time you use a new filament material. Understanding the characteristics of the filament you are using can go a long way when it comes to getting the best print possible from a 3d printer.

Temperature

This is especially true when it comes to knowing the temperature that works best with the filament.Most modern slicing software can change the temperature.

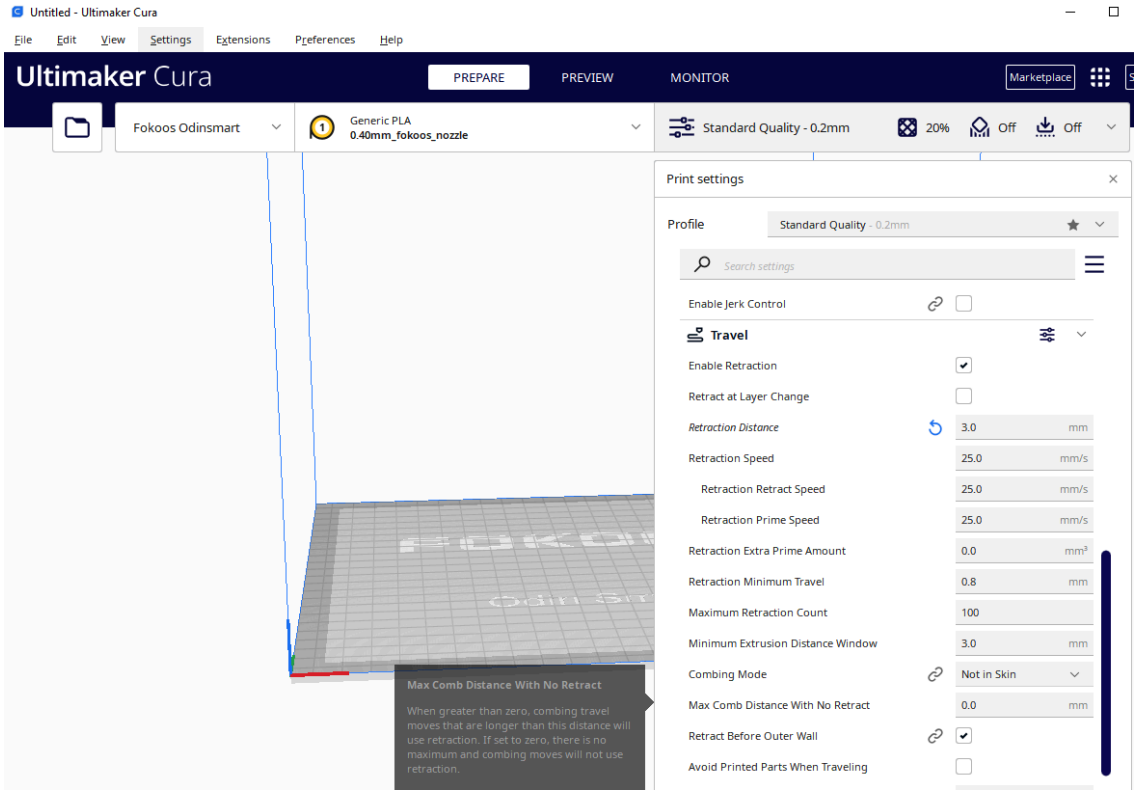
You would want to print a temperature town to help you determine what temperature works best for the filament that you are using. The filament manufacture tends to give you a range you can use, but that range is typically 15-30 degrees, so it really only provides you a starting point. The difference between printing at the min and max of the range can be day and night, especially with more specialty filaments.

You can use the key words , " temperature town", to search in google to get the way to tune the right temperature of the filament**. Then set the right temperature in cura.**



Retraction

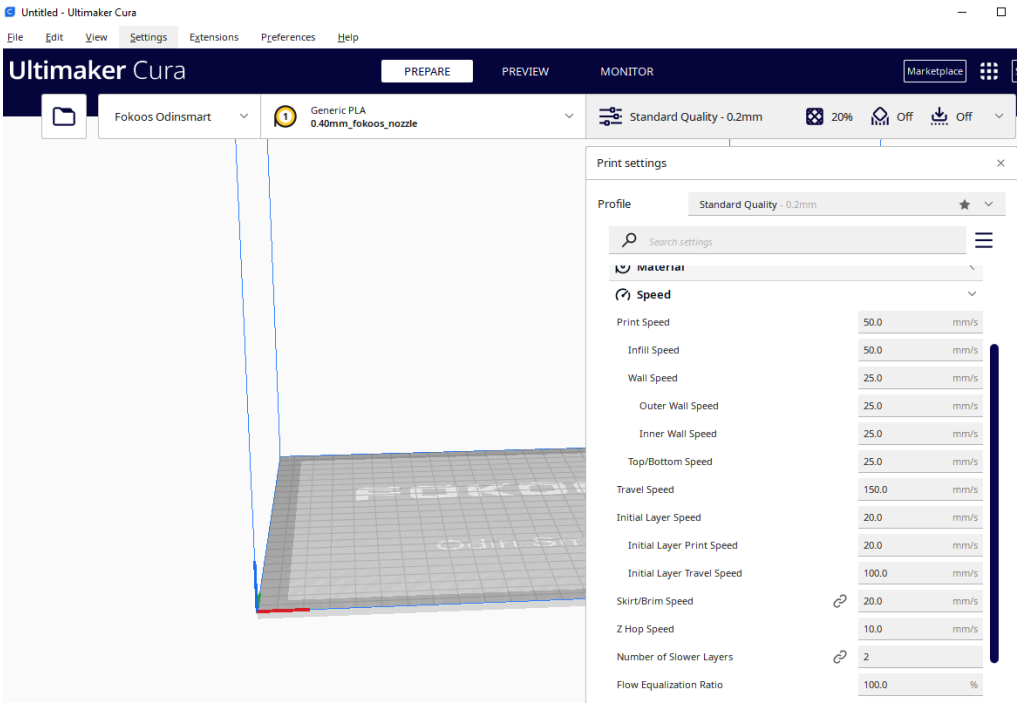
Also, you have to calibrate the retraction settings accordingly every time you use a new filament material. **You can use the key words , " retraction town", to search in google to get the way to tune the right retraction settings of the** filament**. Then set the right settings in cura.**



Speed

The print speed can affect 3D printer quality. The printing speed can be adjusted to reduce production time, but poor adjustment may also lead to print imperfections and failures.Keep in mind that different printers, slicing software, and filament may behave differently, so repeated testing may be necessary.

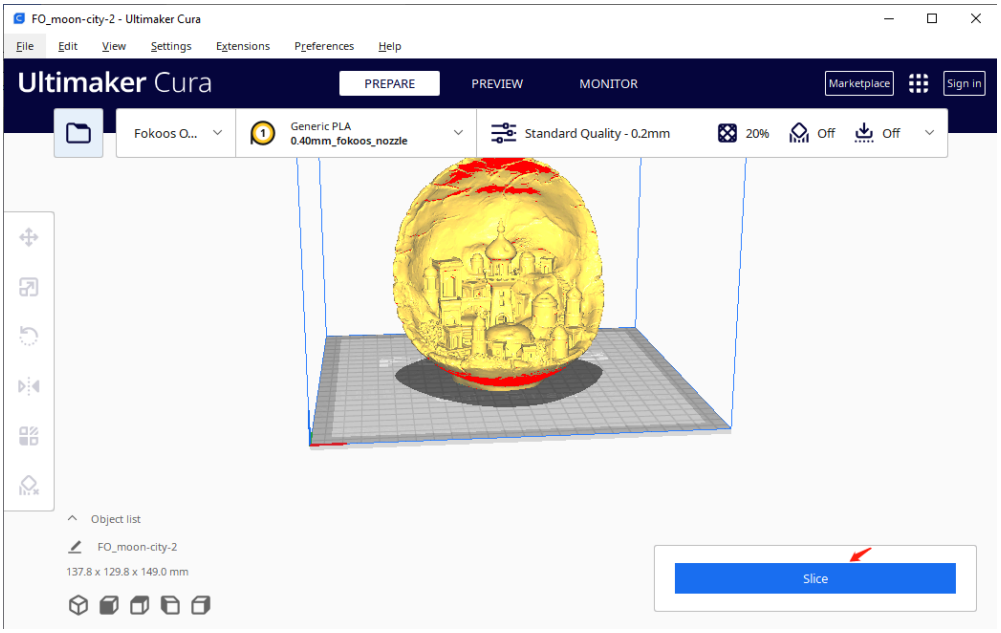
You can use the key words , " speed test tower" or " print speed test model", to search in google to get the way to tune the right speed settings. Then set the right settings in cura.



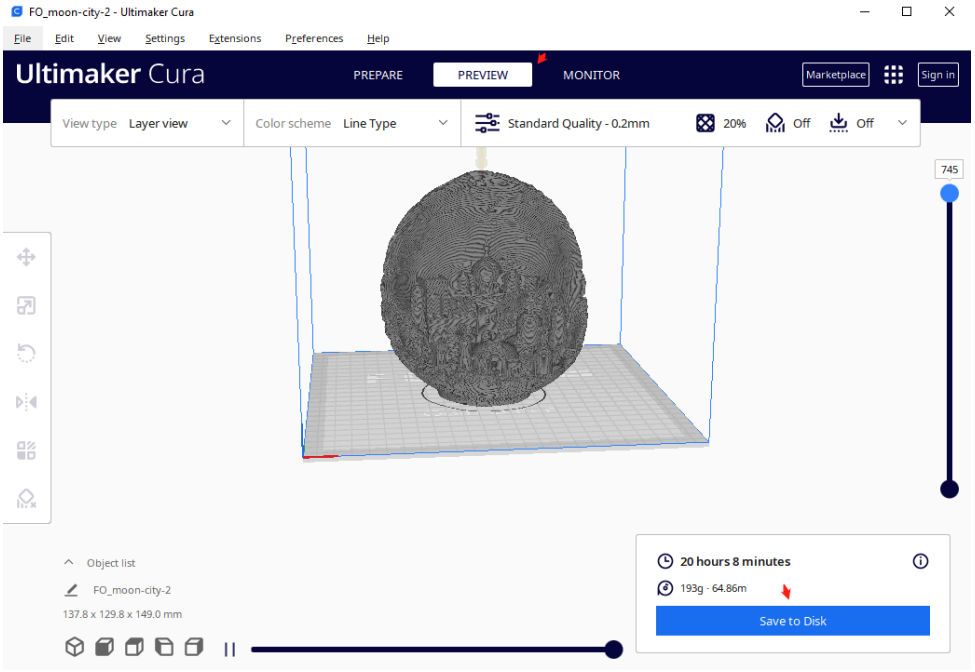
4.8 Slice\ preview\Save

Now that the printer type, configuration and print settings are in place, it's time to slice the model, with the button

in the bottom right corner. When the process completes, it will immediately show a '**preview button**', click it to go to the **preview** stage.



This view is ideal for seeing what the inside of your print will look like and how it will be printed. Use the layer slider and simulation view to check important parts of your 3D slice.



Finally , "Save to Disk" to save the gcode file to your disk(U disk or TF card).

4.9 Print the file

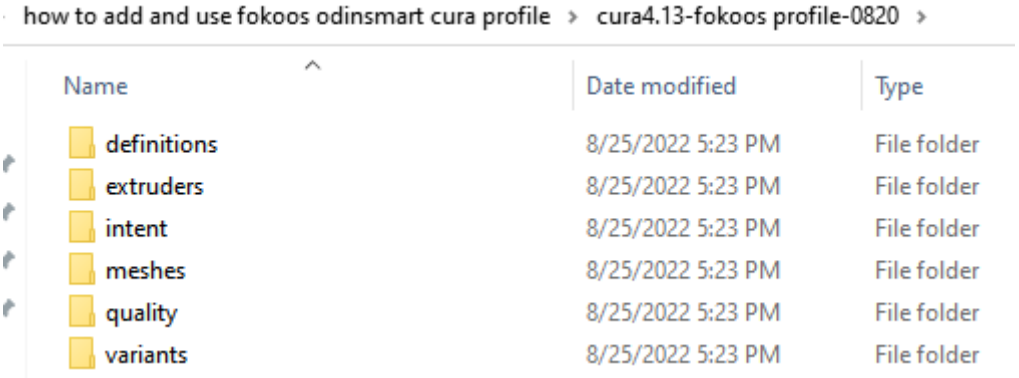
Insert your U disk or TF card into to Odin smart slot, then you can select the above file to print.

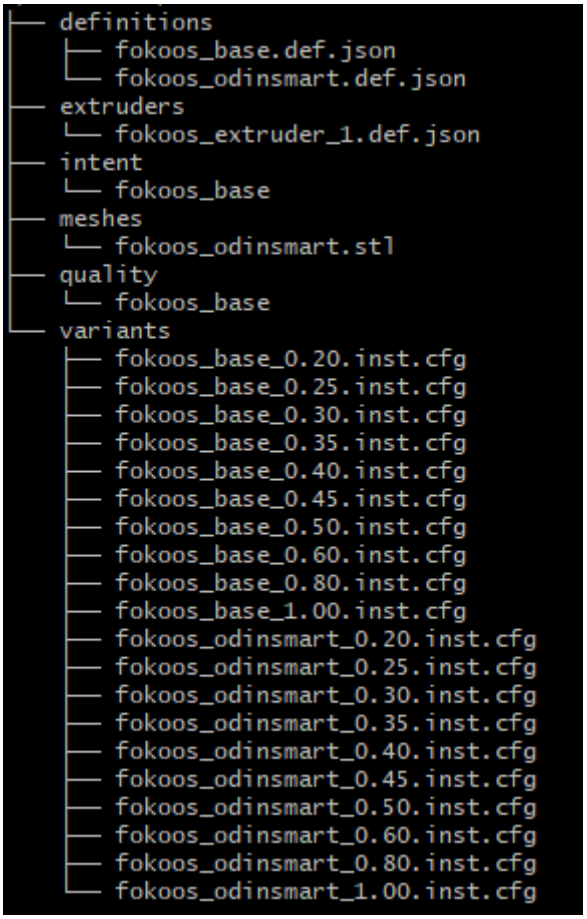
How to adjust parameters in cura 5.1.x for good print quality

Add profile to cura 4.13.1

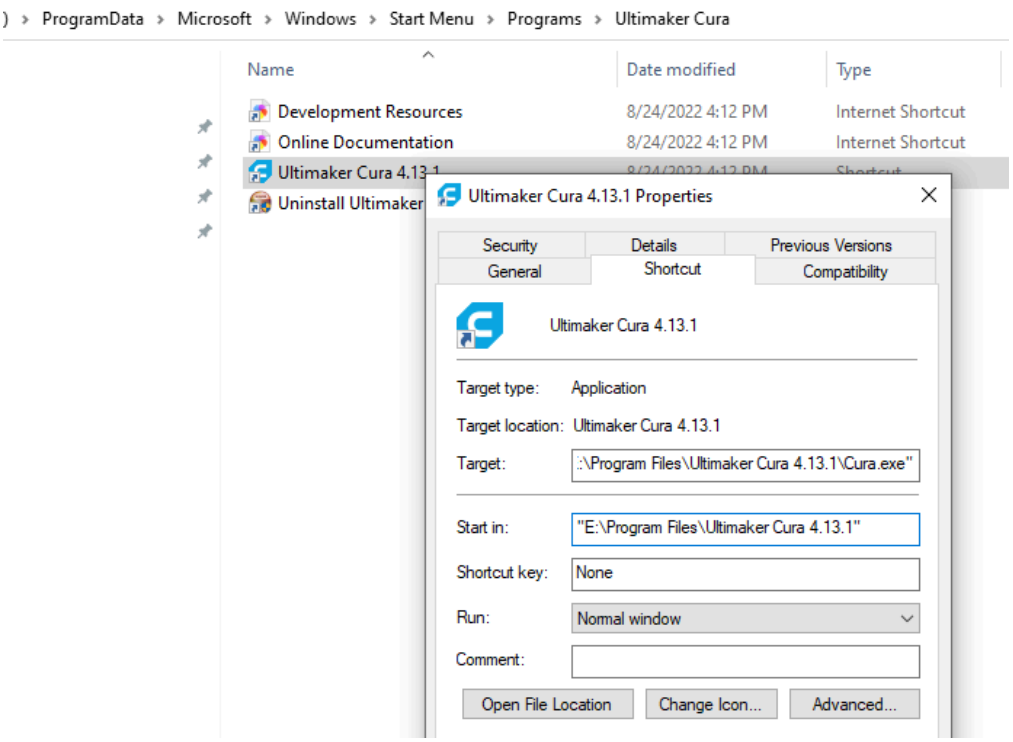
You must ask for the profile files of cura 4.13.1 from fokoos support.

If you get the "**cura4.13-fokoos profile-0820.7z**", extract it. The content is as the following picture:

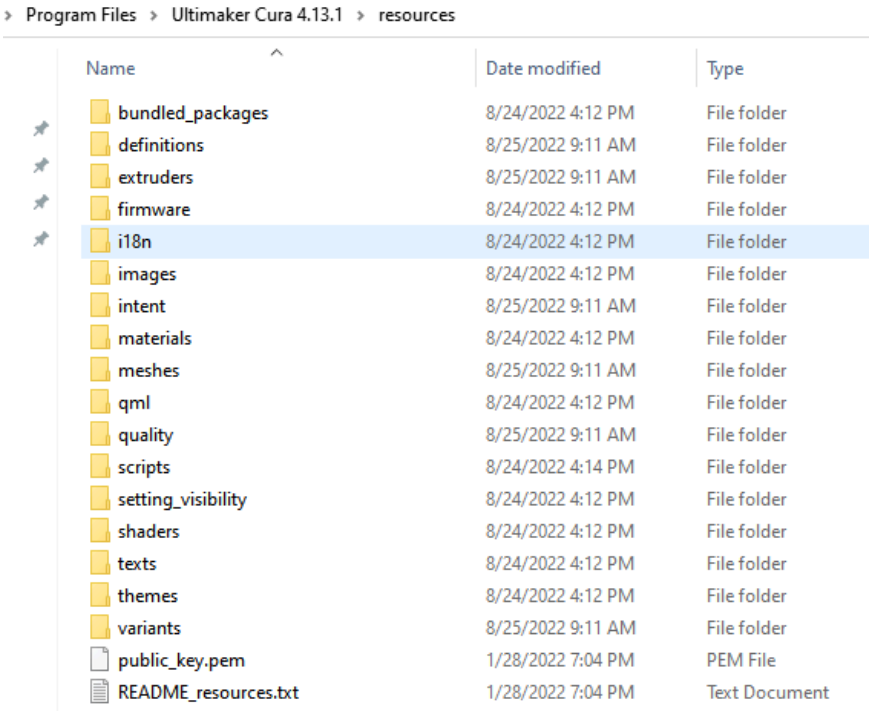




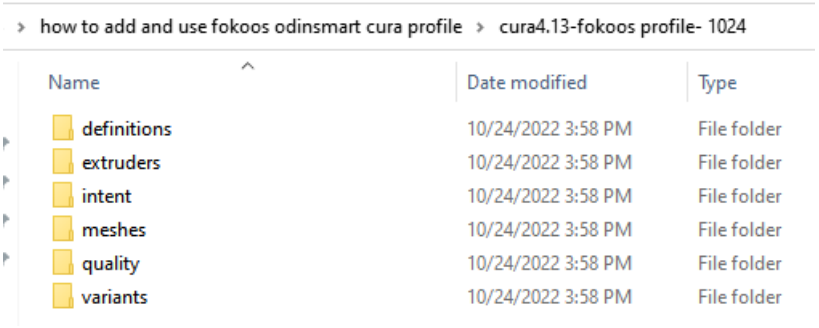
Find out the Cura 4.13.1 setup position



Enter the “Ultimaker Cura 4.13.1\resources” folder,



Copy the all contents of cura4.13-fokoos profile-xxxx,



and put all into the “Ultimaker Cura 4.13.1\resources” folder. Please check if the copy operations is OK.

Add “fokoos odinsmart“ machine

Use odinsmart profile in cura 4.13.x

Please refer to Use odinsmart profile in cura 5.1.x

Slice from 3d modle to gcode file in cura 4.13.x

Please refer to Slice from 3d modle to gcode file in cura 5.1.x

How to adjust parameters in cura 4.13.x for good print quality

Please refer to How to adjust parameters in cura 5.1.x for good print quality