

# CACM Printer Farm Setup

## A Student User Guide



The CACM Digital Fabrication Lab 3D printer farm is accessible to all CACM students. The following guide will provide the steps necessary for downloading and setting up Cura software for your personal computer as well as instructions for how to “slice” a model in Cura and submit it to a printer.

*Note: Students can also access Cura in the Student Success Headquarters (SSHQ) and I1 computer labs.*

### **3D Printing Farm Policy**

- 1) \$15/1000g filament limit per student per semester
- 2) Prints start on first come, first serve basis within the queue
- 3) Each student may queue up to 1 job at a time
- 4) Only CACM class projects are permitted, no personal printing is available

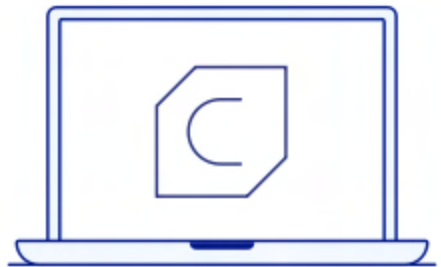
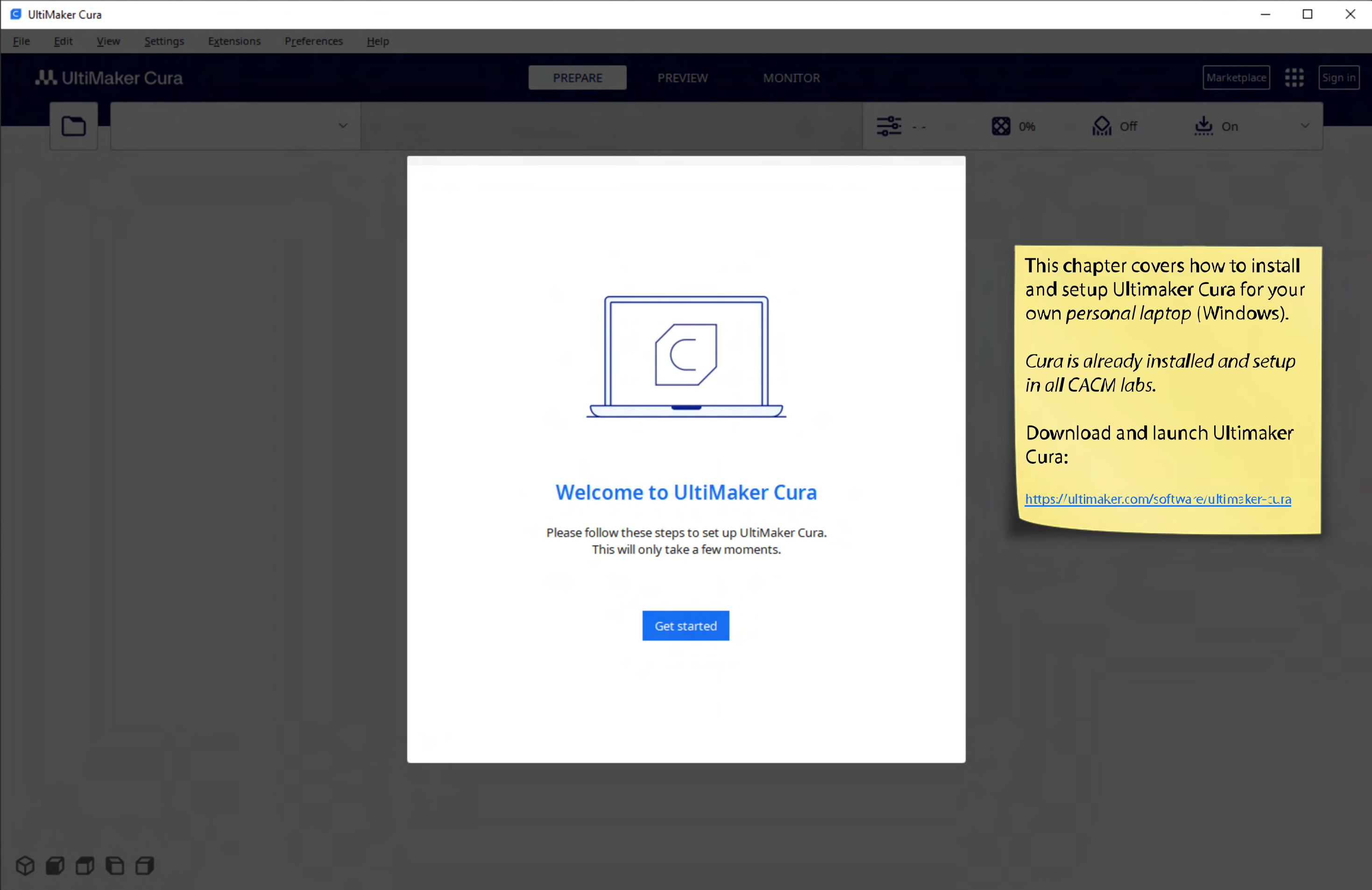
### **Table of Contents**

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- 2) [Cura Software Setup \(MacOS\)](#)
- 3) [Slicing a File for 3D Printing](#)
- 4) [Submitting a Sliced File to 3DPrinterOS](#)



# Chapter 1

## Cura Software Setup (Windows)



## Welcome to UltiMaker Cura

Please follow these steps to set up UltiMaker Cura.  
This will only take a few moments.

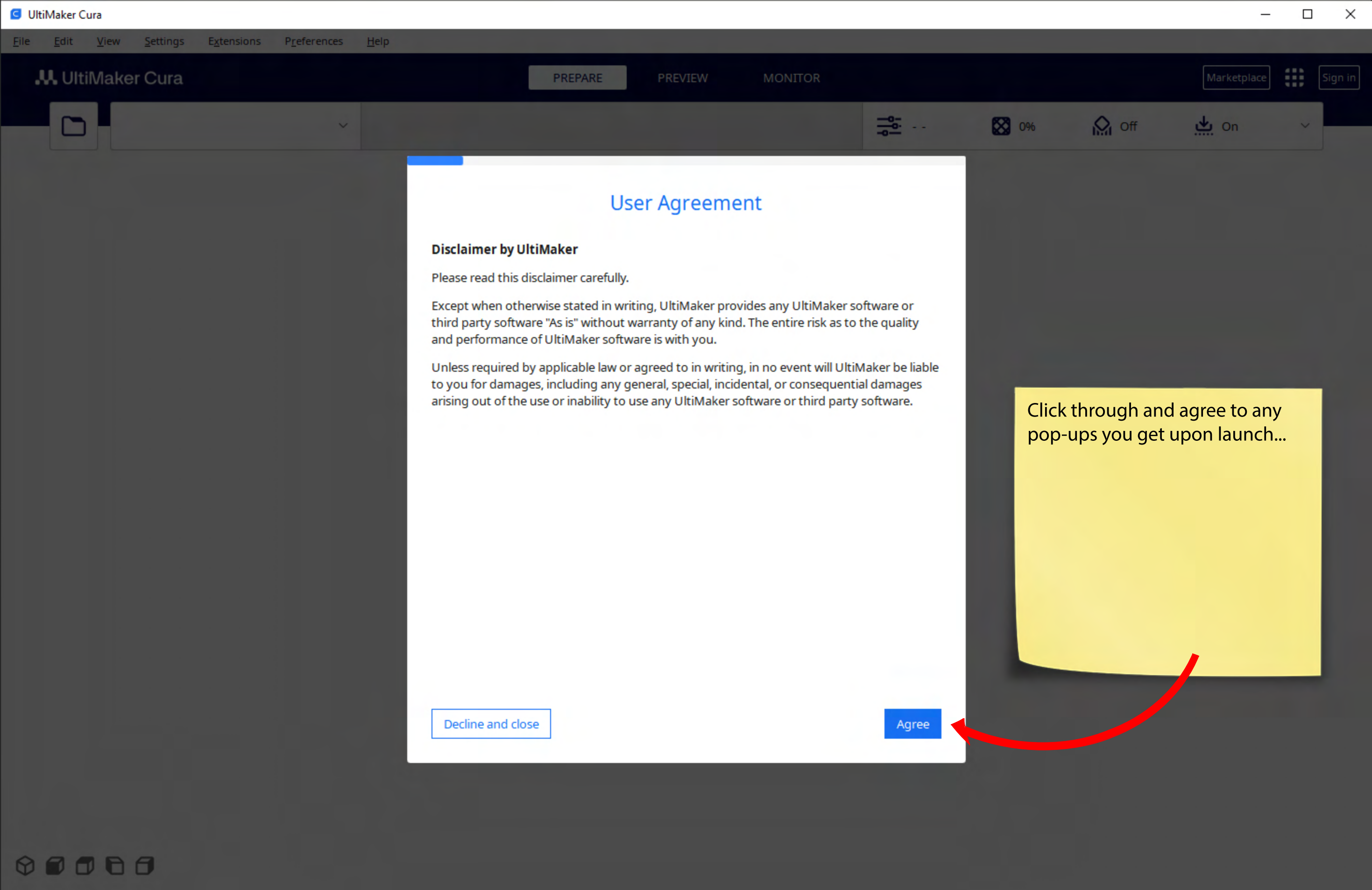
Get started

This chapter covers how to install and setup Ultimaker Cura for your own *personal laptop* (Windows).

*Cura is already installed and setup in all CACM labs.*

Download and launch Ultimaker Cura:

<https://ultimaker.com/software/ultimaker-cura>



## User Agreement

### Disclaimer by UltiMaker

Please read this disclaimer carefully.

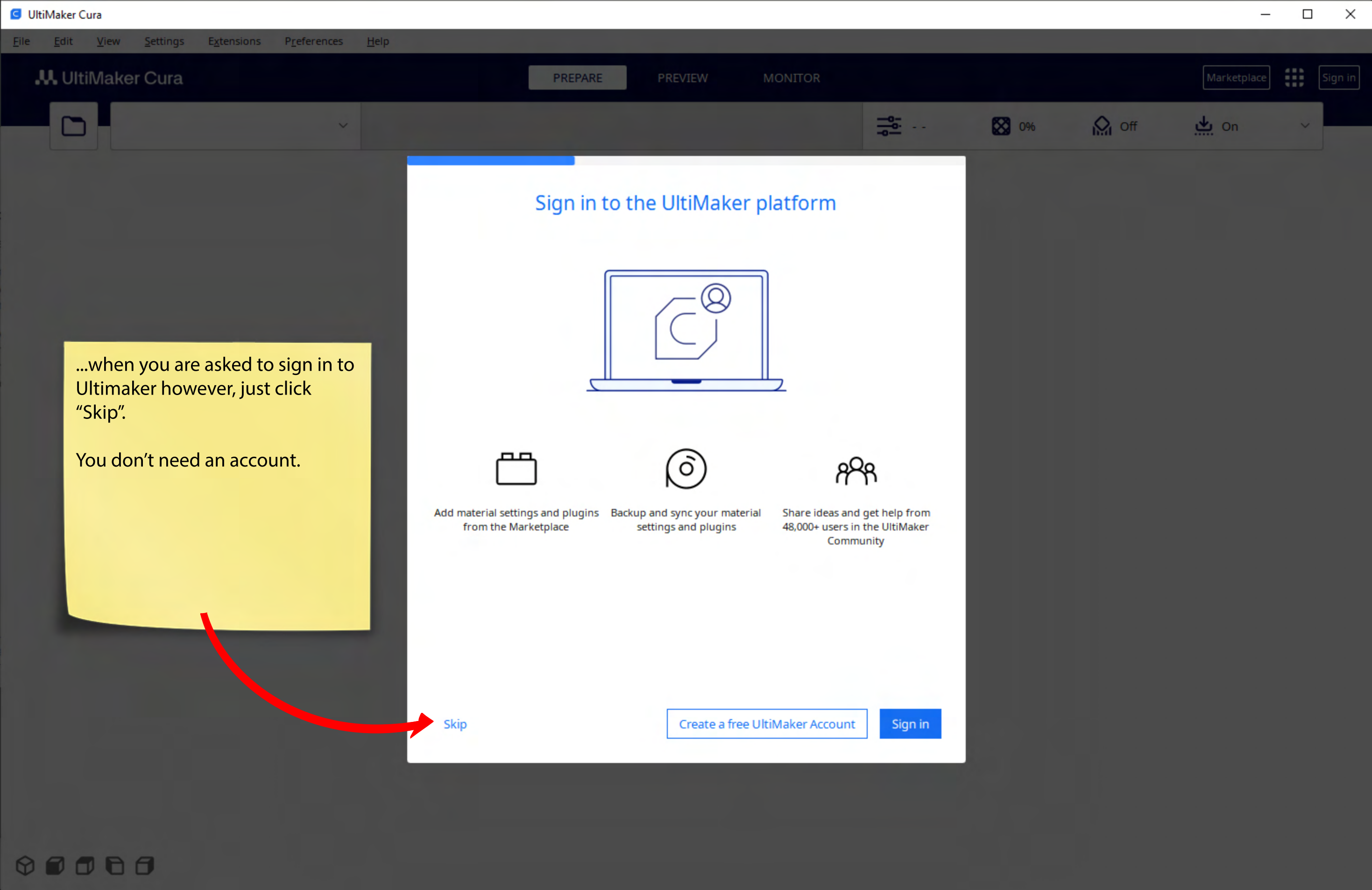
Except when otherwise stated in writing, UltiMaker provides any UltiMaker software or third party software "As is" without warranty of any kind. The entire risk as to the quality and performance of UltiMaker software is with you.

Unless required by applicable law or agreed to in writing, in no event will UltiMaker be liable to you for damages, including any general, special, incidental, or consequential damages arising out of the use or inability to use any UltiMaker software or third party software.

Decline and close

Agree

Click through and agree to any pop-ups you get upon launch...



...when you are asked to sign in to Ultimaker however, just click "Skip".

You don't need an account.

## Sign in to the UltiMaker platform



Add material settings and plugins from the Marketplace



Backup and sync your material settings and plugins

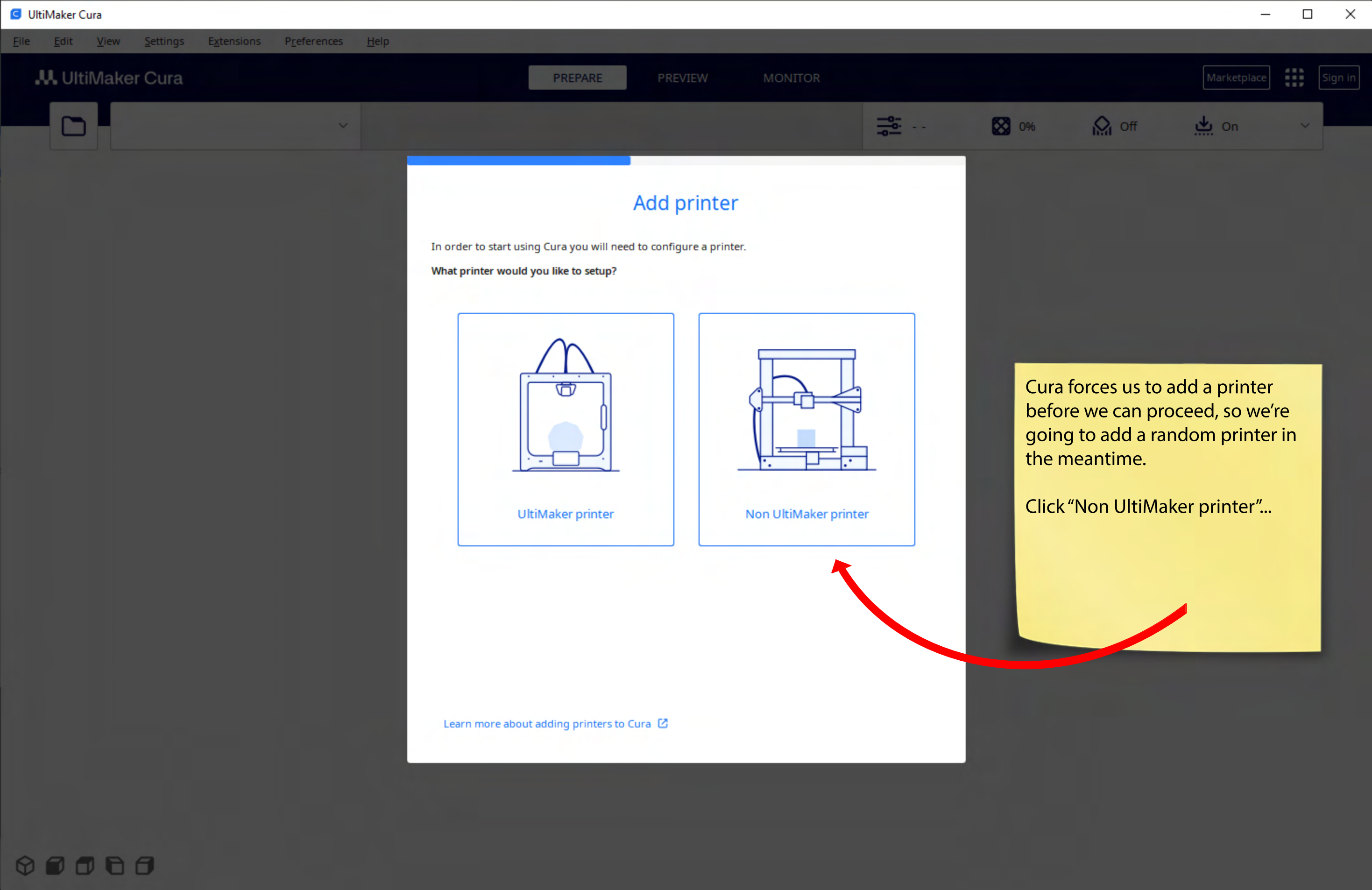


Share ideas and get help from 48,000+ users in the UltiMaker Community

Skip

Create a free UltiMaker Account

Sign in



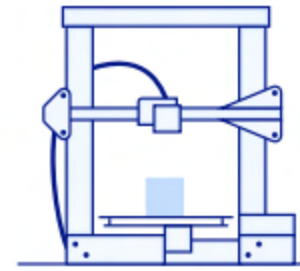
## Add printer

In order to start using Cura you will need to configure a printer.

What printer would you like to setup?



UltiMaker printer

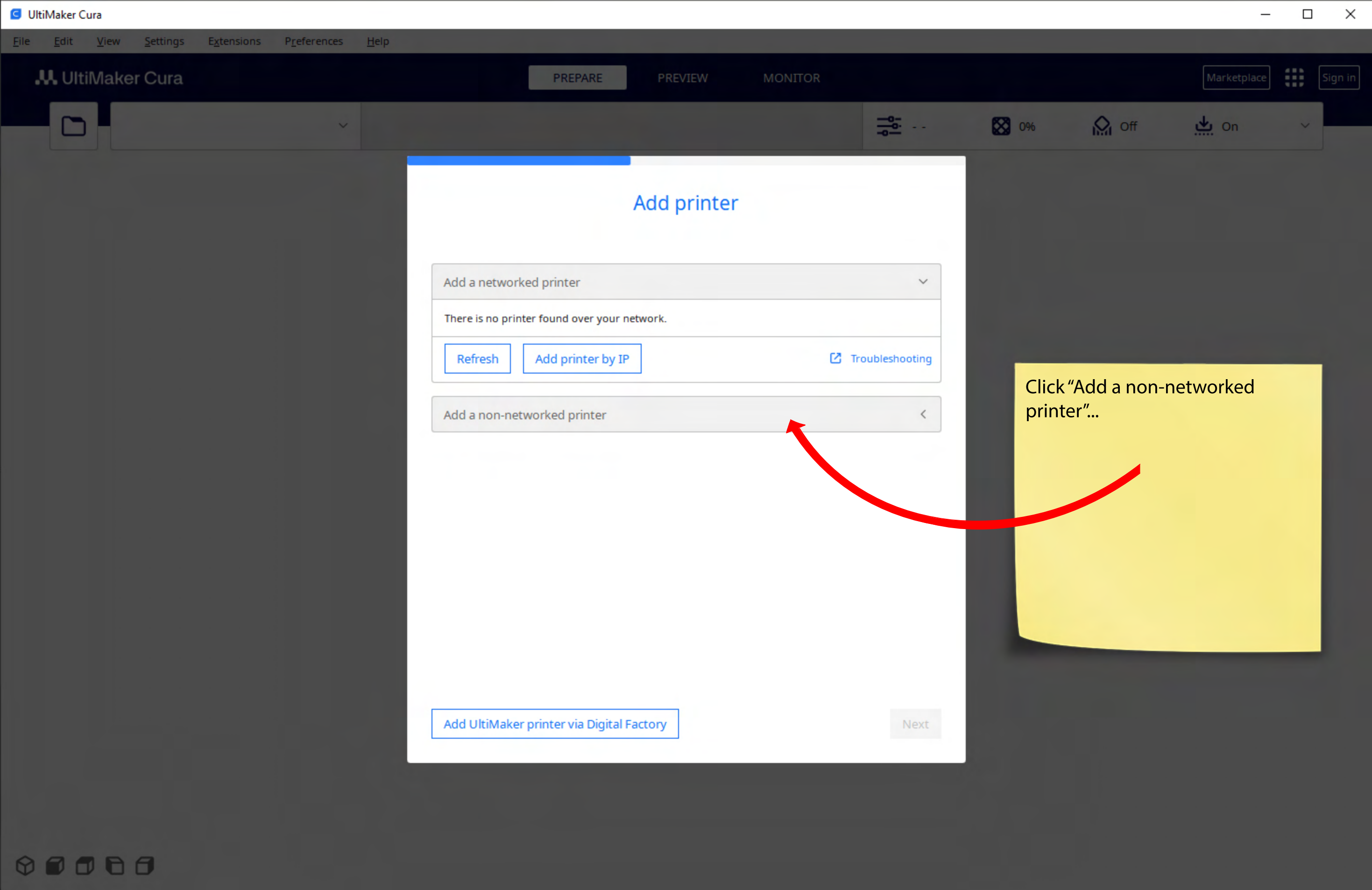


Non UltiMaker printer

[Learn more about adding printers to Cura](#)

Cura forces us to add a printer before we can proceed, so we're going to add a random printer in the meantime.

Click "Non UltiMaker printer"...



## Add printer

Add a networked printer

There is no printer found over your network.

Refresh

Add printer by IP

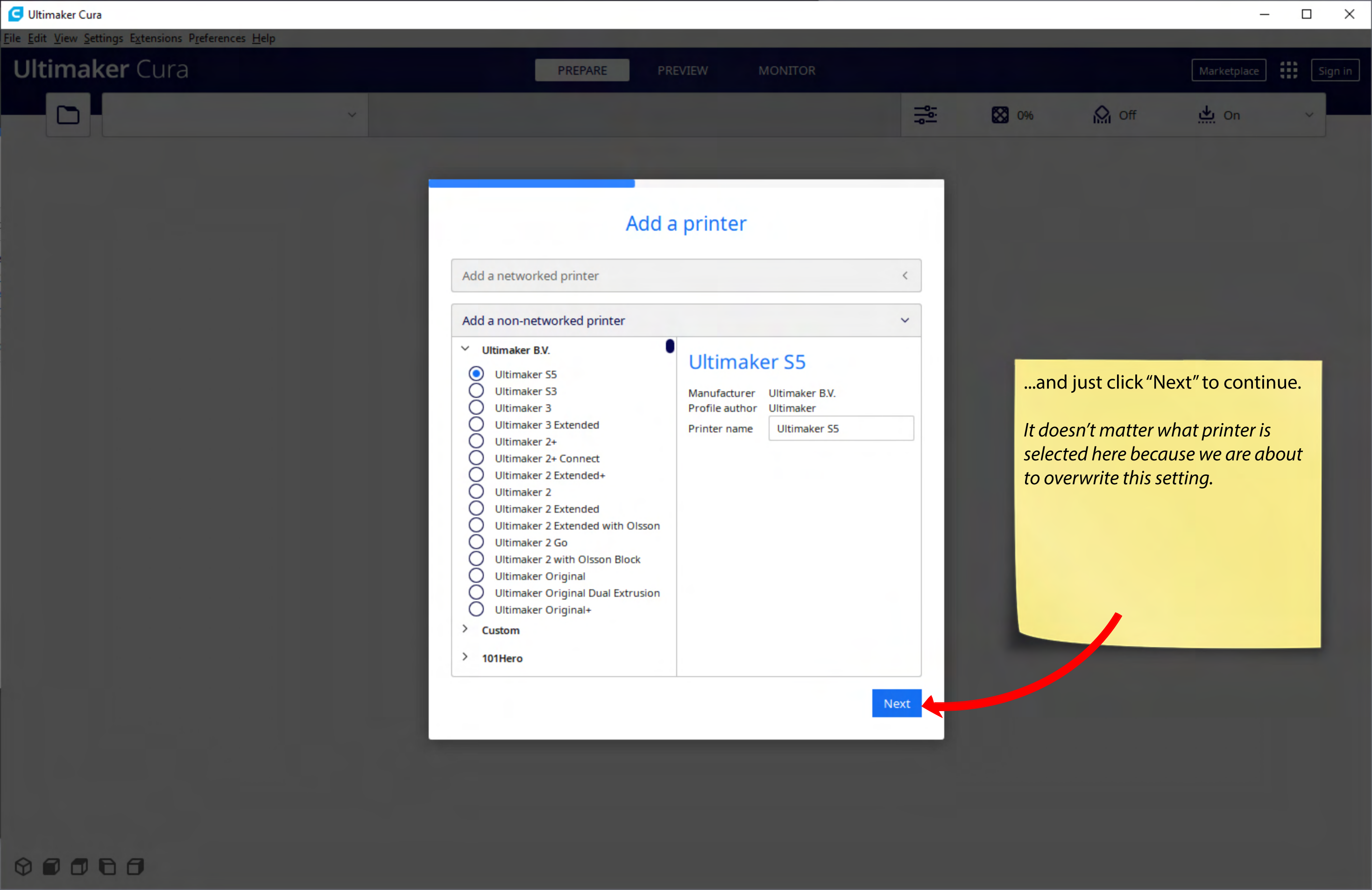
[Troubleshooting](#)

Add a non-networked printer

Add Ultimaker printer via Digital Factory

Next

Click "Add a non-networked printer"...



## Add a printer

Add a networked printer

Add a non-networked printer

▼ Ultimaker B.V.

- Ultimaker S5
- Ultimaker S3
- Ultimaker 3
- Ultimaker 3 Extended
- Ultimaker 2+
- Ultimaker 2+ Connect
- Ultimaker 2 Extended+
- Ultimaker 2
- Ultimaker 2 Extended
- Ultimaker 2 Extended with Olsson
- Ultimaker 2 Go
- Ultimaker 2 with Olsson Block
- Ultimaker Original
- Ultimaker Original Dual Extrusion
- Ultimaker Original+

> Custom

> 101Hero

### Ultimaker S5

Manufacturer Ultimaker B.V.

Profile author Ultimaker

Printer name

Next

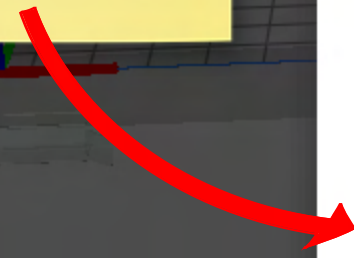
...and just click "Next" to continue.

*It doesn't matter what printer is selected here because we are about to overwrite this setting.*



Ultimaker S5
1 Generic PLA AA 0.4
2 Generic PLA AA 0.4
Fine - 0.1mm
20%
Off
On

More prompts! "Skip" through anything else that pops up here.



### What's New

**Improve first time right - with Ultimaker print profile optimizations**

As a result of countless hours of print process optimizations by our materials and software engineers - we've packed Ultimaker Cura 4.12 with quality improvements for Ultimaker print profiles. This increases first-time-right results by improving default top surface and horizontal print quality. Start your print and try it out!

Skip
Next



Ultimaker S5



Show Configuration Folder

Show Online Troubleshooting

Show Online Documentation

Report a Bug

What's New

About...

Generic PLA  
AA 0.4

Normal - 0.15mm



20%



Off



On



Once you're finally at the main page, click "Help" in the menu bar.

Then, click "Show Configuration Folder".

Ultimaker S5

File Home Share View

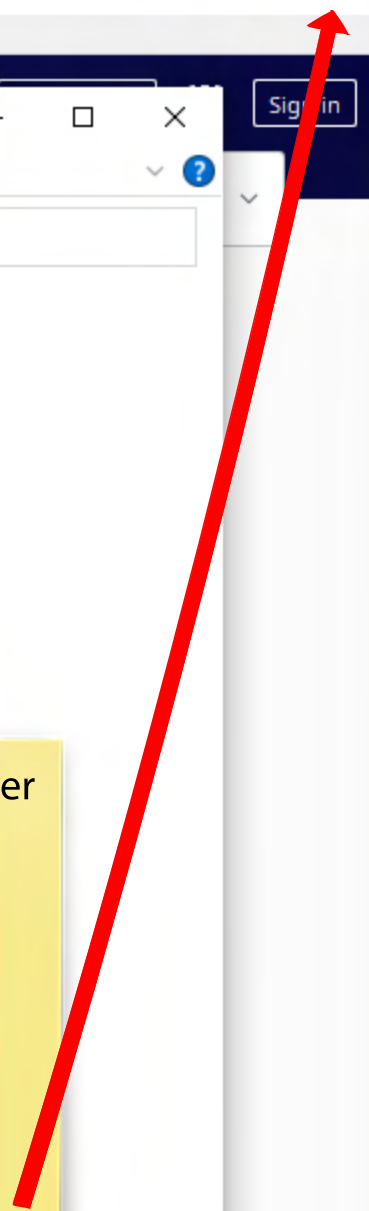
← → ↶ ↷ ↻ 🔍 Search 4.12

📁 > Rachel Johnson > AppData > Roaming > cura > 4.12 >

Name	Date modified	Type	Size
📁 definition_changes	2/24/2022 1:51 PM	File folder	
📁 definitions	2/24/2022 1:47 PM	File folder	
📁 extruders	2/24/2022 1:51 PM	File folder	
📁 intent	2/24/2022 1:47 PM	File folder	
📁 machine_instances	2/24/2022 1:51 PM	File folder	
📁 materials	2/24/2022 1:47 PM	File folder	
📁 plugins	2/24/2022 1:47 PM	File folder	
📁 quality	2/24/2022 1:47 PM	File folder	
📁 quality_changes	2/24/2022 1:47 PM	File folder	
📁 scripts	2/24/2022 1:47 PM	File folder	
📁 setting_visibility	2/24/2022 1:47 PM	File folder	
📁 themes	2/24/2022 1:47 PM	File folder	
📁 user	2/24/2022 1:51 PM	File folder	
📁 variants	2/24/2022 1:47 PM	File folder	
📄 cura.cfg	2/24/2022 1:51 PM	CFG File	2 KB
📄 cura.log	2/24/2022 1:47 PM	Text Document	0 KB
📄 packages.json	2/24/2022 1:47 PM	JSON File	1 KB
📄 plugins.json	2/24/2022 1:47 PM	JSON File	1 KB

The following configuration folder should pop-up.

Close Cura now, but keep this new folder open.



File Explorer window showing the directory path: Rachel Johnson > AppData > Roaming > cura > 4.12

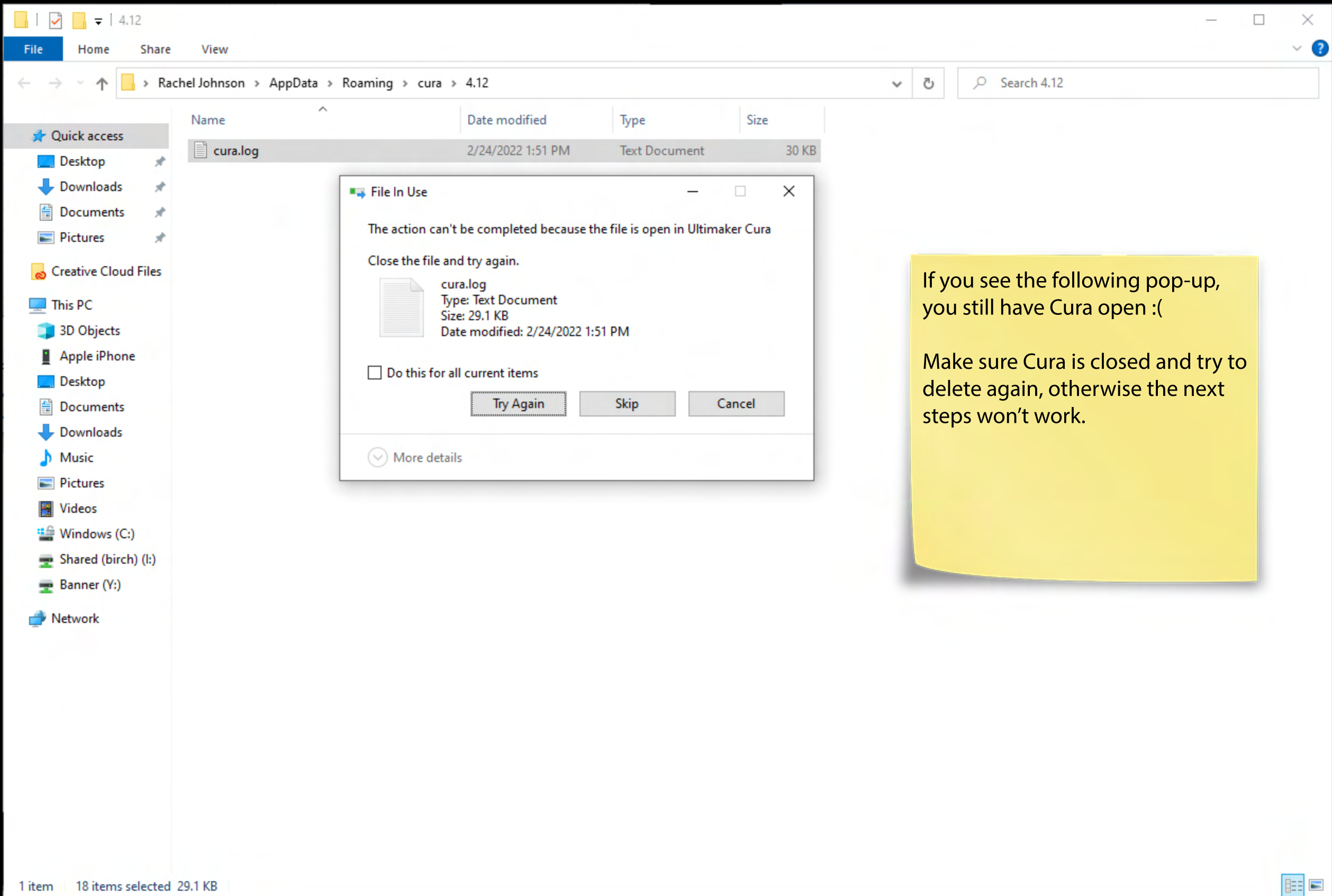
Name	Date modified	Type	Size
definition_changes	2/24/2022 1:51 PM	File folder	
definitions	2/24/2022 1:47 PM	File folder	
extruders	2/24/2022 1:51 PM	File folder	
intent	2/24/2022 1:47 PM	File folder	
machine_instances	2/24/2022 1:51 PM	File folder	
materials	2/24/2022 1:47 PM	File folder	
plugins	2/24/2022 1:47 PM	File folder	
quality	2/24/2022 1:47 PM	File folder	
quality_changes	2/24/2022 1:47 PM	File folder	
scripts	2/24/2022 1:47 PM	File folder	
setting_visibility	2/24/2022 1:47 PM	File folder	
themes	2/24/2022 1:47 PM	File folder	
user			
variants			
cura.cfg			
cura.log			
packages.json			
plugins.json	2/24/2022 1:47 PM	JSON File	1 KB

**Delete Multiple Items**

Are you sure you want to move these 18 items to the Recycle Bin?

18 items | 18 items selected

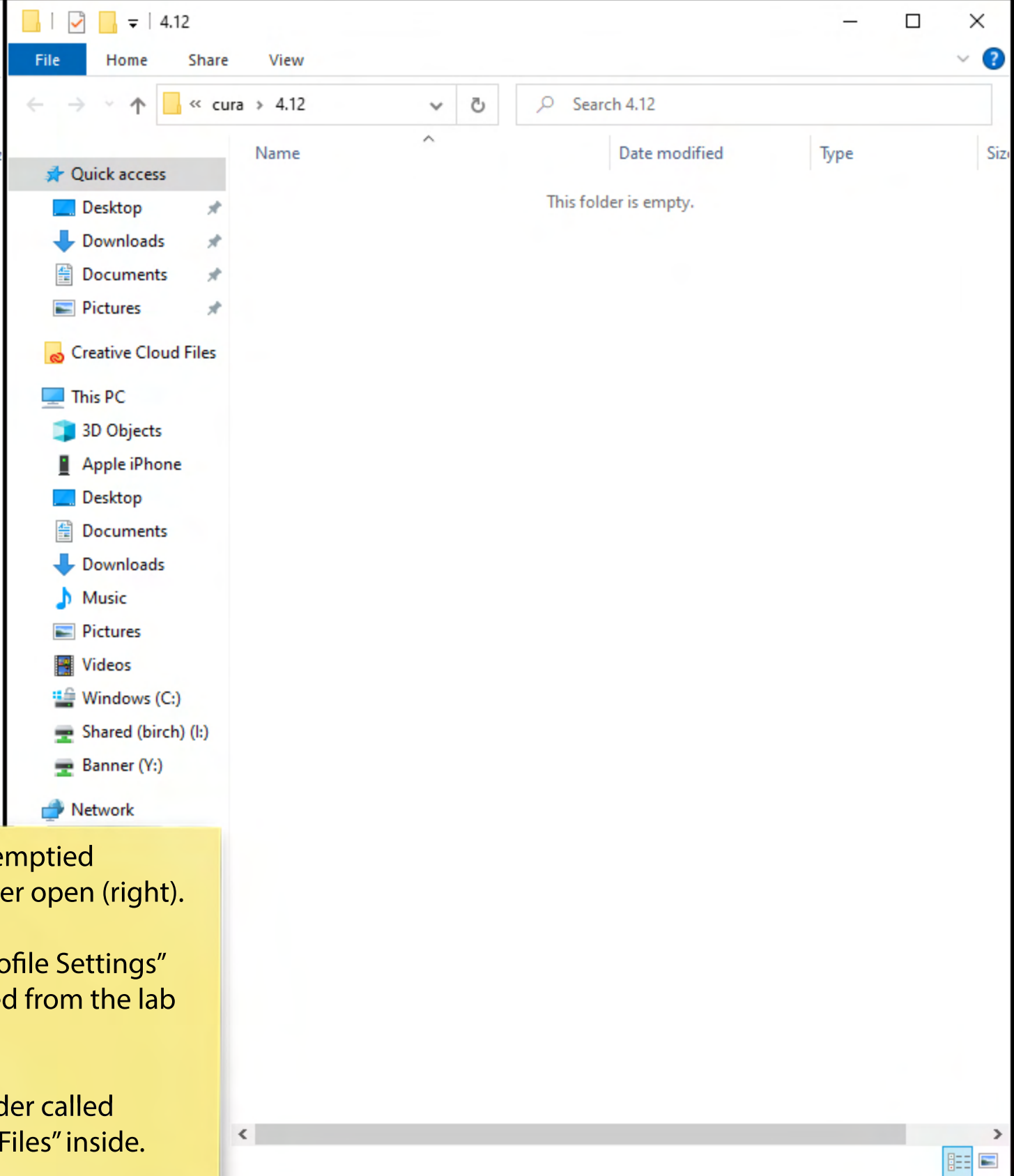
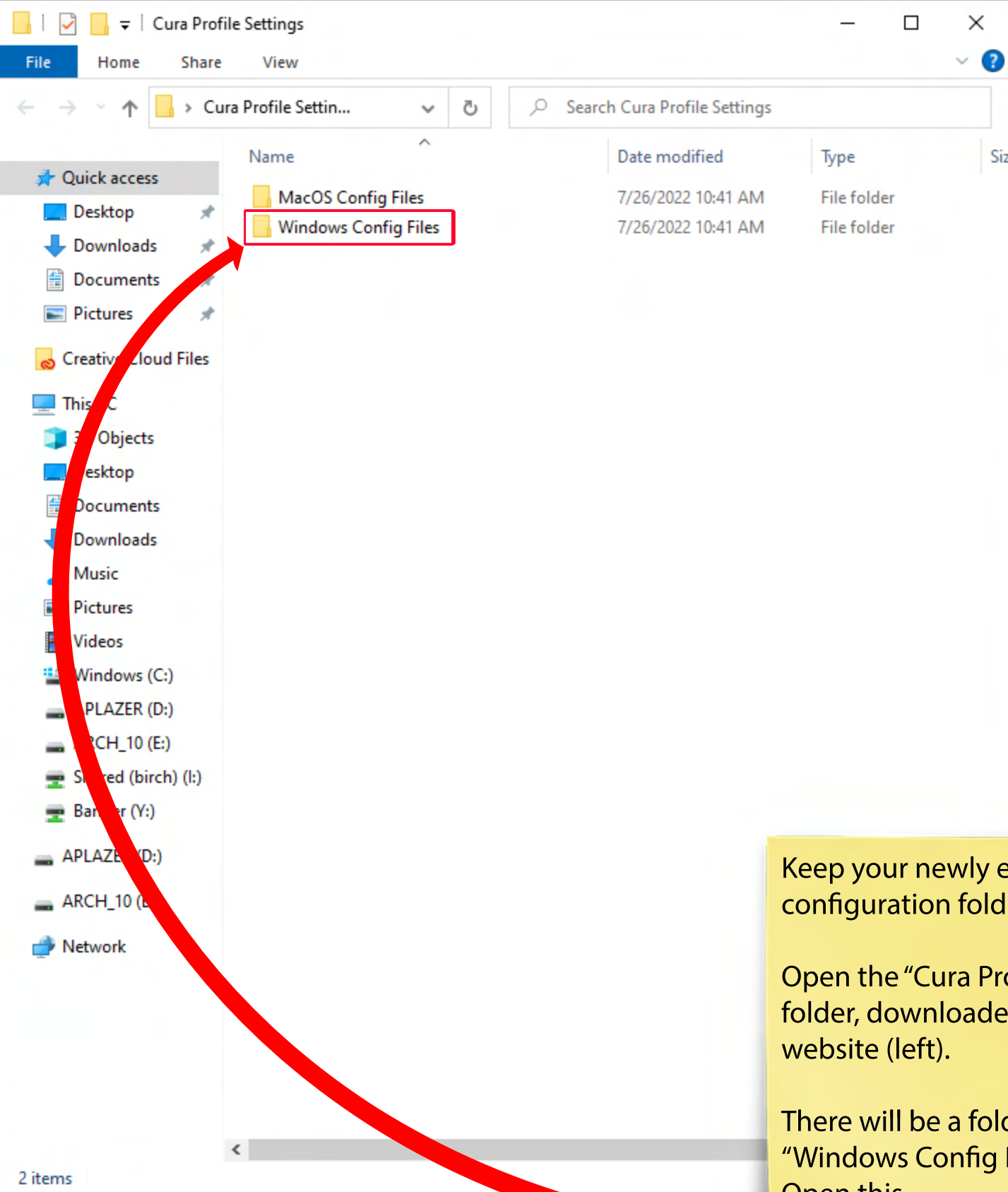
Select all files within this folder and delete them.



If you see the following pop-up, you still have Cura open :(

Make sure Cura is closed and try to delete again, otherwise the next steps won't work.





Keep your newly emptied configuration folder open (right).

Open the "Cura Profile Settings" folder, downloaded from the lab website (left).

There will be a folder called "Windows Config Files" inside. Open this.

Windows Config Files

File Home Share View

Search Windows Config Files

Name	Date modified	Type	Size
definition_changes	7/26/2022 10:41 AM	File folder	
definitions	12/8/2021 1:41 PM	File folder	
extruders	7/26/2022 10:41 AM	File folder	
intent	12/8/2021 1:41 PM	File folder	
machine_instances	7/26/2022 10:41 AM	File folder	
materials	12/8/2021 1:41 PM	File folder	
plugins	12/8/2021 1:41 PM	File folder	
quality	12/8/2021 1:41 PM	File folder	
quality_changes	7/26/2022 10:41 AM	File folder	
scripts	12/8/2021 1:41 PM	File folder	
setting_visibility	12/8/2021 1:41 PM	File folder	
themes	12/8/2021 1:41 PM	File folder	
user	7/26/2022 10:41 AM	File folder	
variants	12/8/2021 1:41 PM	File folder	
cura.cfg	7/25/2022 4:19 PM	CFG File	
cura.log	7/25/2022 4:19 PM	Text Document	
packages.json	6/15/2022 1:14 PM	JSON File	
plugins.json	7/25/2022 4:18 PM	JSON File	

18 items

4.12

File Home Share View

Search 4.12

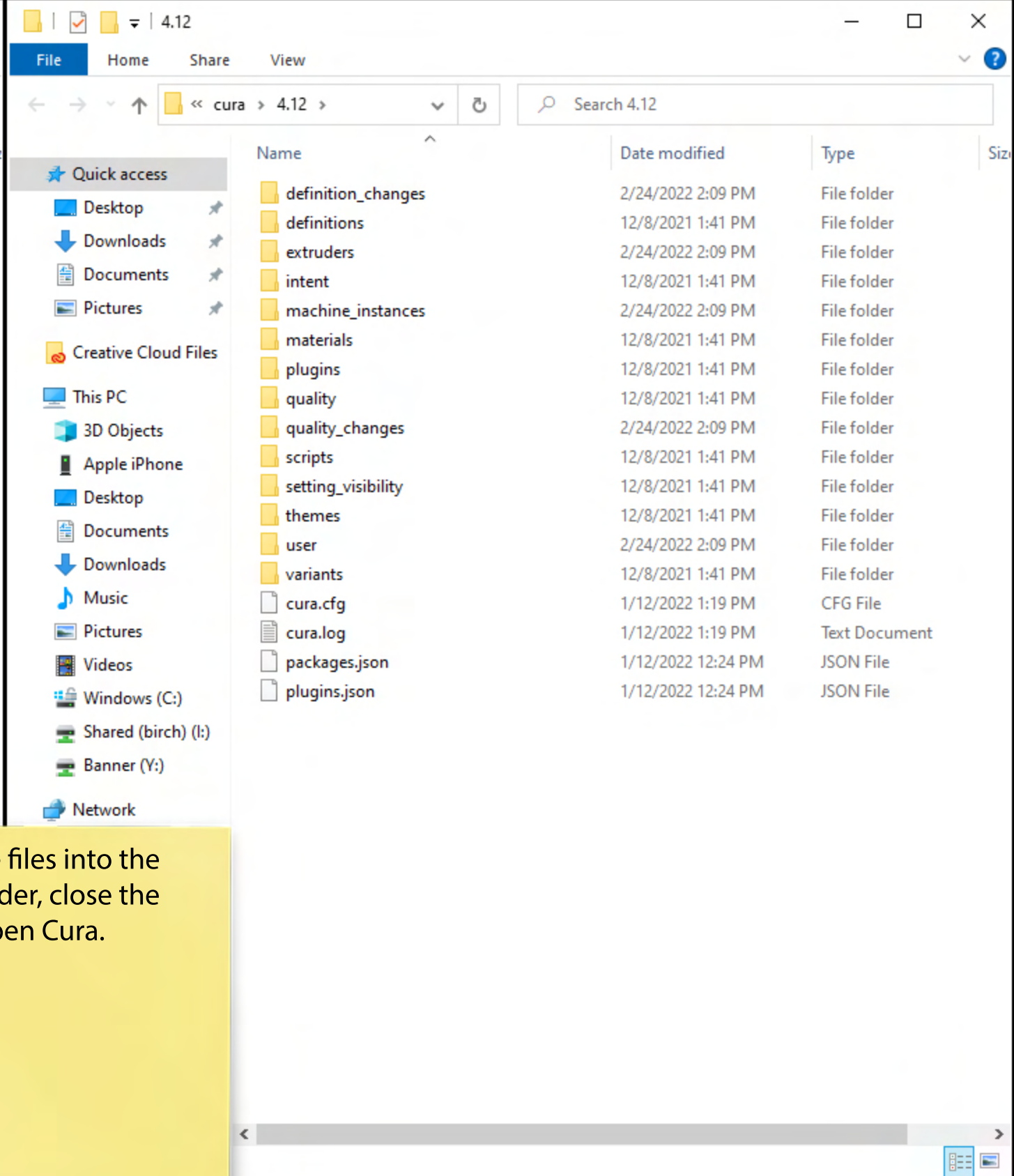
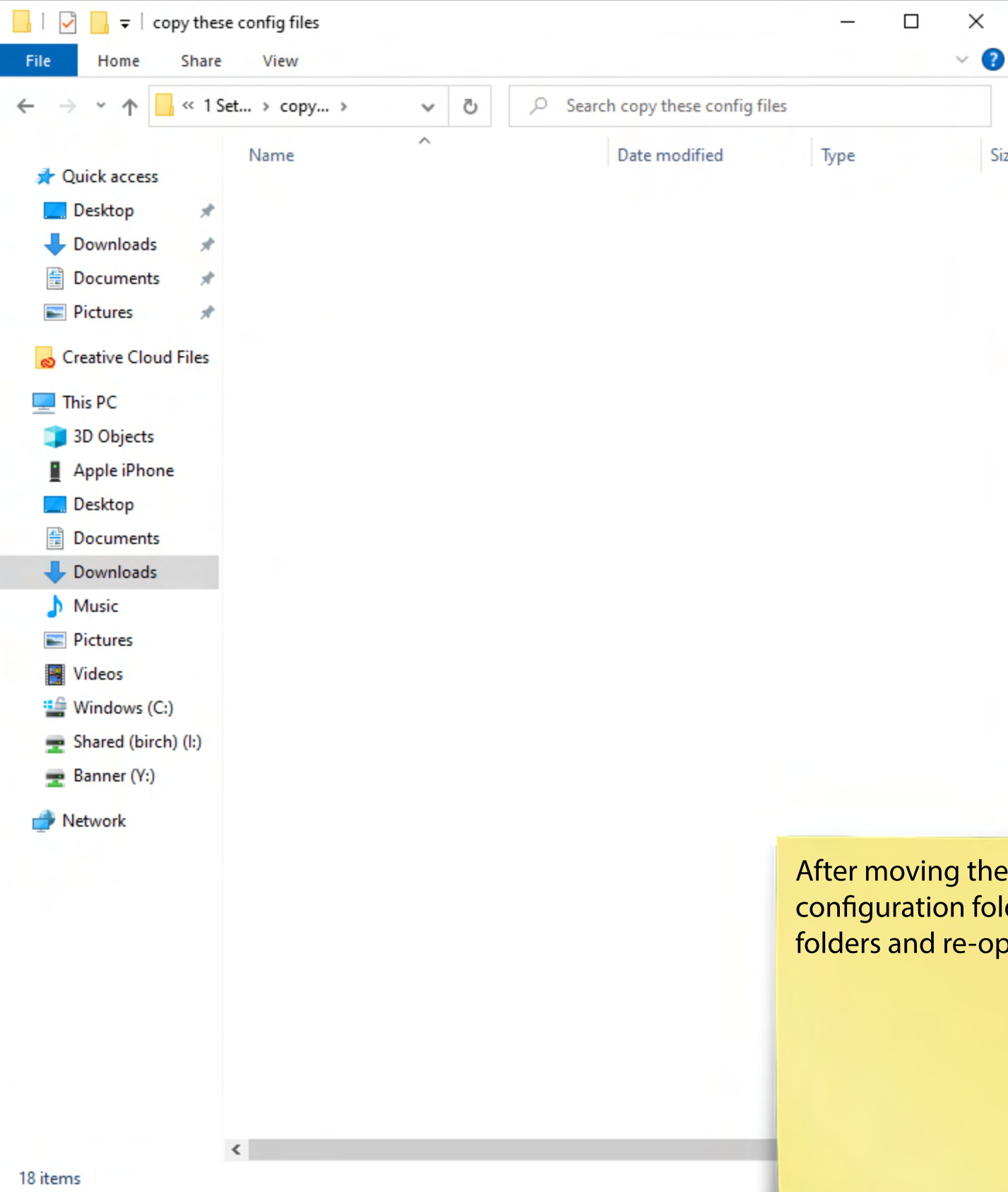
Quick access

- Desktop
- Downloads
- Documents
- Pictures
- Creative Cloud Files
- This PC
- 3D Objects
- Apple iPhone
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Videos
- Windows (C:)
- Shared (birch) (I:)
- Banner (Y:)
- Network



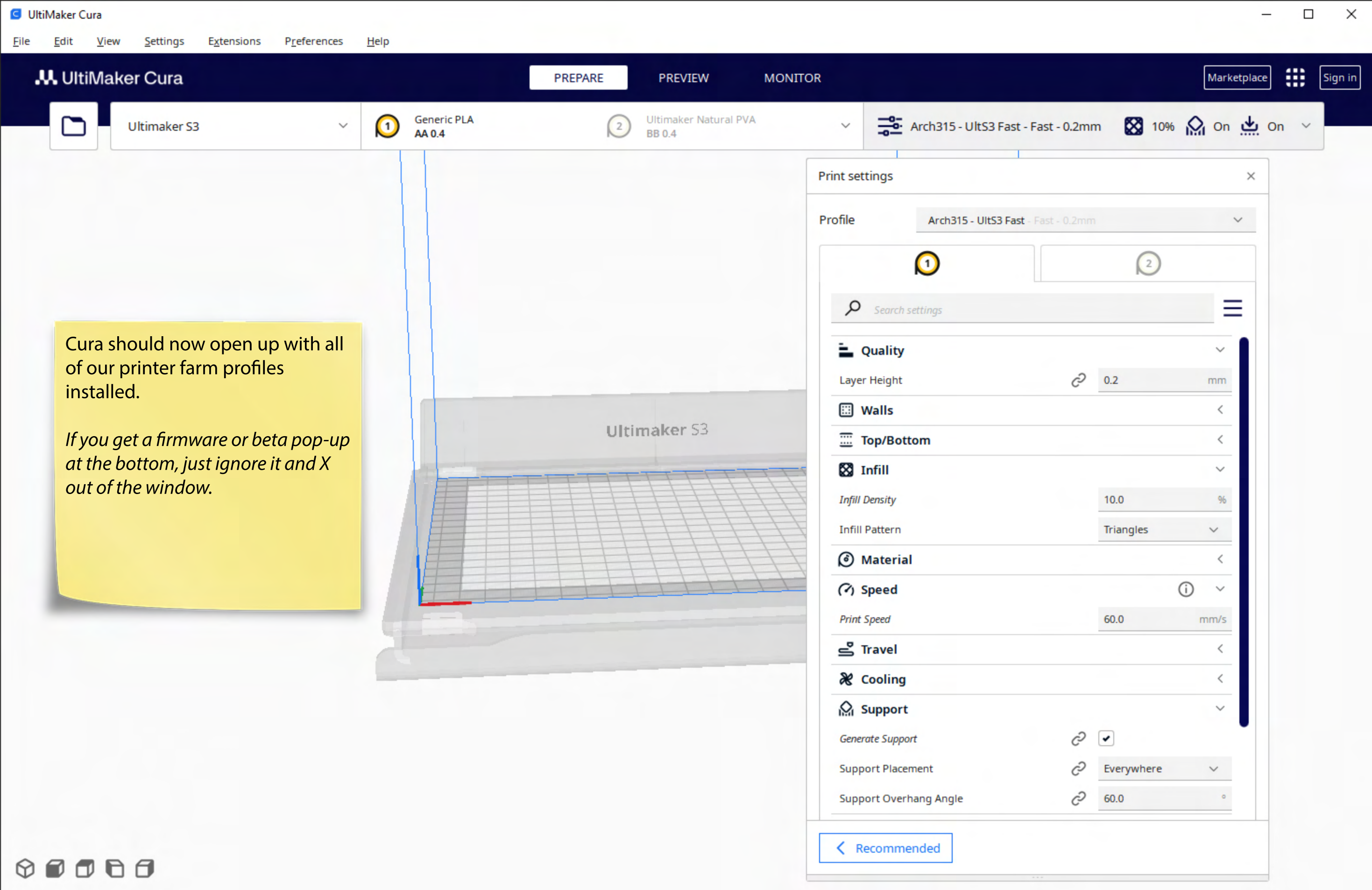
Copy-paste OR drag all files inside "Windows Config Files" into the empty configuration folder.

*This will overwrite Cura's settings and add all profiles automatically.*



After moving the files into the configuration folder, close the folders and re-open Cura.





Cura should now open up with all of our printer farm profiles installed.

*If you get a firmware or beta pop-up at the bottom, just ignore it and X out of the window.*

### Print settings

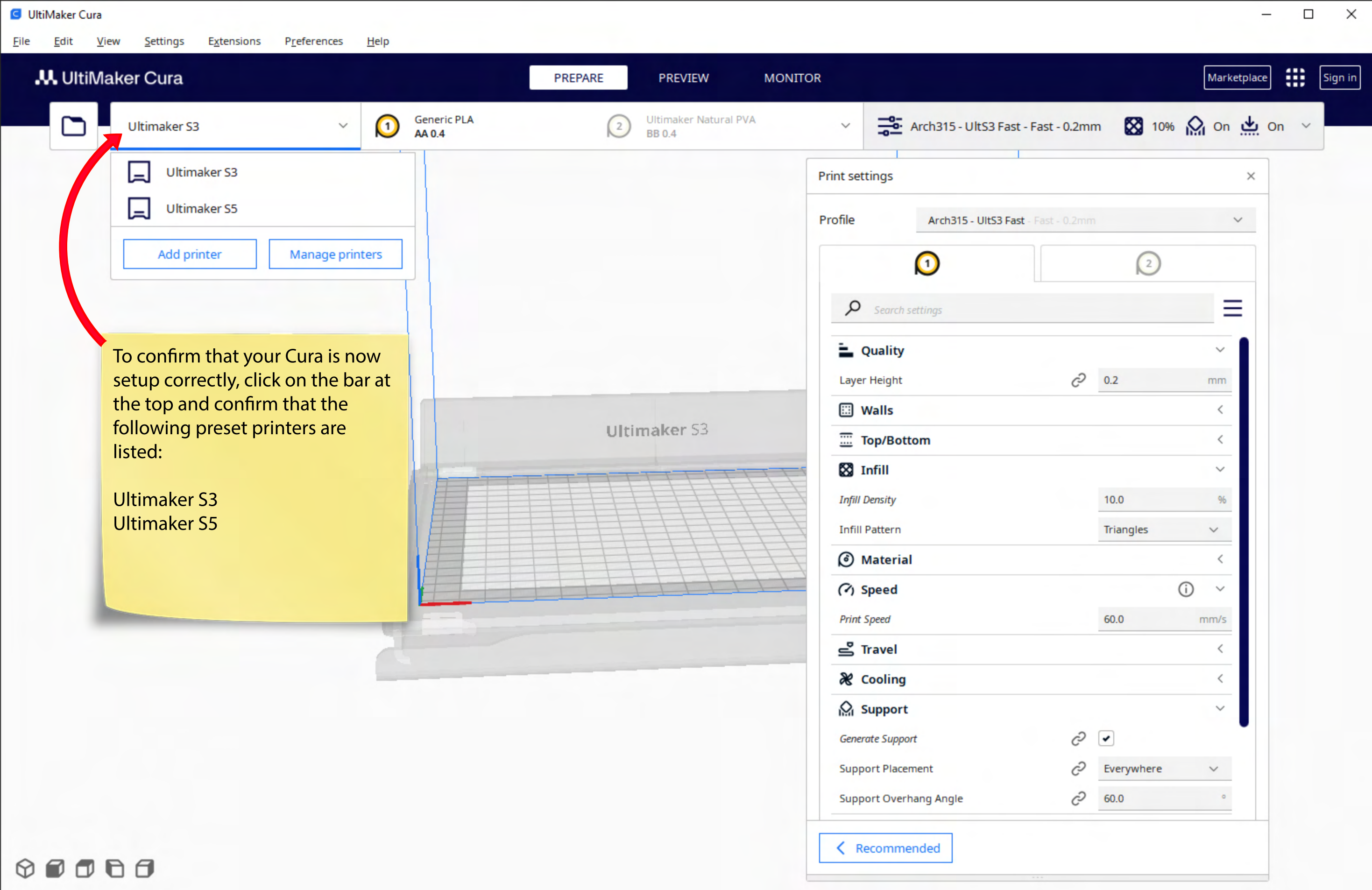
Profile: Arch315 - UltS3 Fast - Fast - 0.2mm

1 2

Search settings

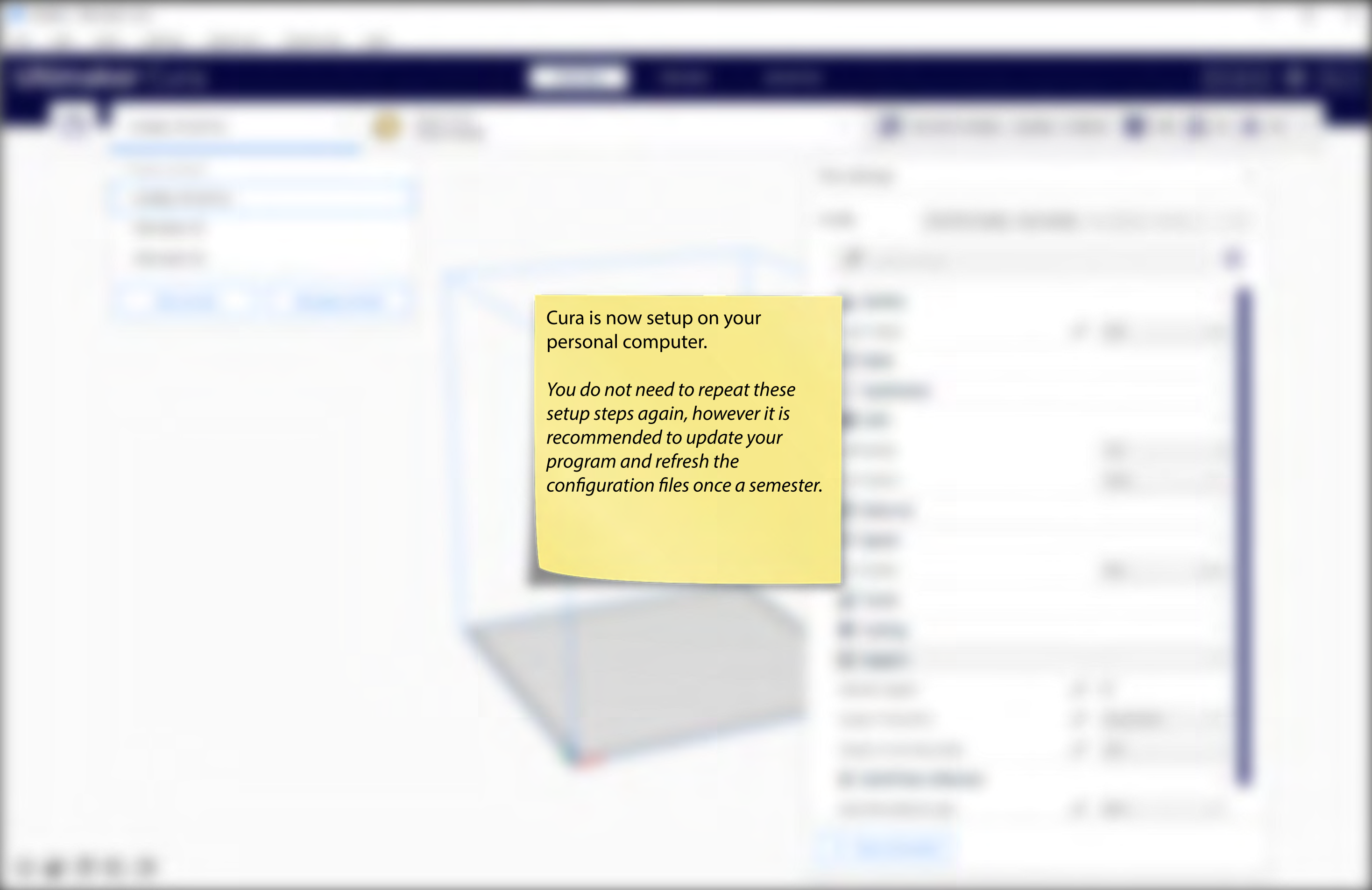
- Quality**
  - Layer Height: 0.2 mm
- Walls**
- Top/Bottom**
- Infill**
  - Infill Density: 10.0 %
  - Infill Pattern: Triangles
- Material**
- Speed**
  - Print Speed: 60.0 mm/s
- Travel**
- Cooling**
- Support**
  - Generate Support:
  - Support Placement: Everywhere
  - Support Overhang Angle: 60.0 °

< Recommended



To confirm that your Cura is now setup correctly, click on the bar at the top and confirm that the following preset printers are listed:

- Ultimaker S3
- Ultimaker S5

A blurred screenshot of a software interface, likely Cura, with a yellow sticky note overlay in the center. The background shows various panels and settings, but they are out of focus. The sticky note contains text about the software setup.

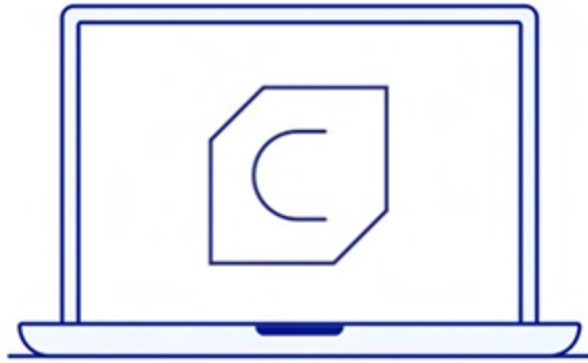
Cura is now setup on your personal computer.

*You do not need to repeat these setup steps again, however it is recommended to update your program and refresh the configuration files once a semester.*



# Chapter 2

## Cura Software Setup (MacOS)



## Welcome to Ultimaker Cura

Please follow these steps to set up Ultimaker Cura. This will only take a few moments.

Get started

This chapter covers how to install and setup Ultimaker Cura for your own *personal laptop* (MacOS).

*Cura is already installed and setup in all CACM labs.*

Download and launch Ultimaker Cura:

<https://ultimaker.com/software/ultimaker-cura>

## User Agreement

### Disclaimer by Ultimaker

Please read this disclaimer carefully.

Except when otherwise stated in writing, Ultimaker provides any Ultimaker software or third party software "As is" without warranty of any kind. The entire risk as to the quality and performance of Ultimaker software is with you.

Unless required by applicable law or agreed to in writing, in no event will Ultimaker be liable to you for damages, including any general, special, incidental, or consequential damages arising out of the use or inability to use any Ultimaker software or third party software.

Decline and close

Agree

Click through and agree to any pop-ups you get upon launch...



## Sign in to the Ultimaker platform



Add material settings and plugins from the Marketplace



Backup and sync your material settings and plugins



Share ideas and get help from 48,000+ users in the Ultimaker Community

[Skip](#)

[Create a free Ultimaker Account](#)

[Sign in](#)

...when you are asked to sign in to Ultimaker however, just click "Skip".

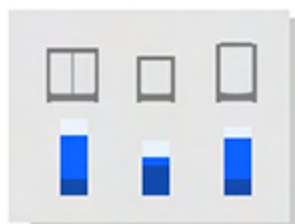
You don't need an account.



## Help us to improve Ultimaker Cura

Ultimaker Cura collects anonymous data to improve print quality and user experience, including:

Machine types



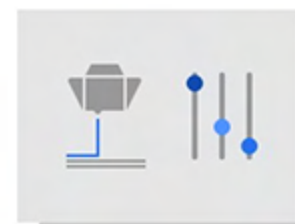
Material usage



Number of slices



Print settings



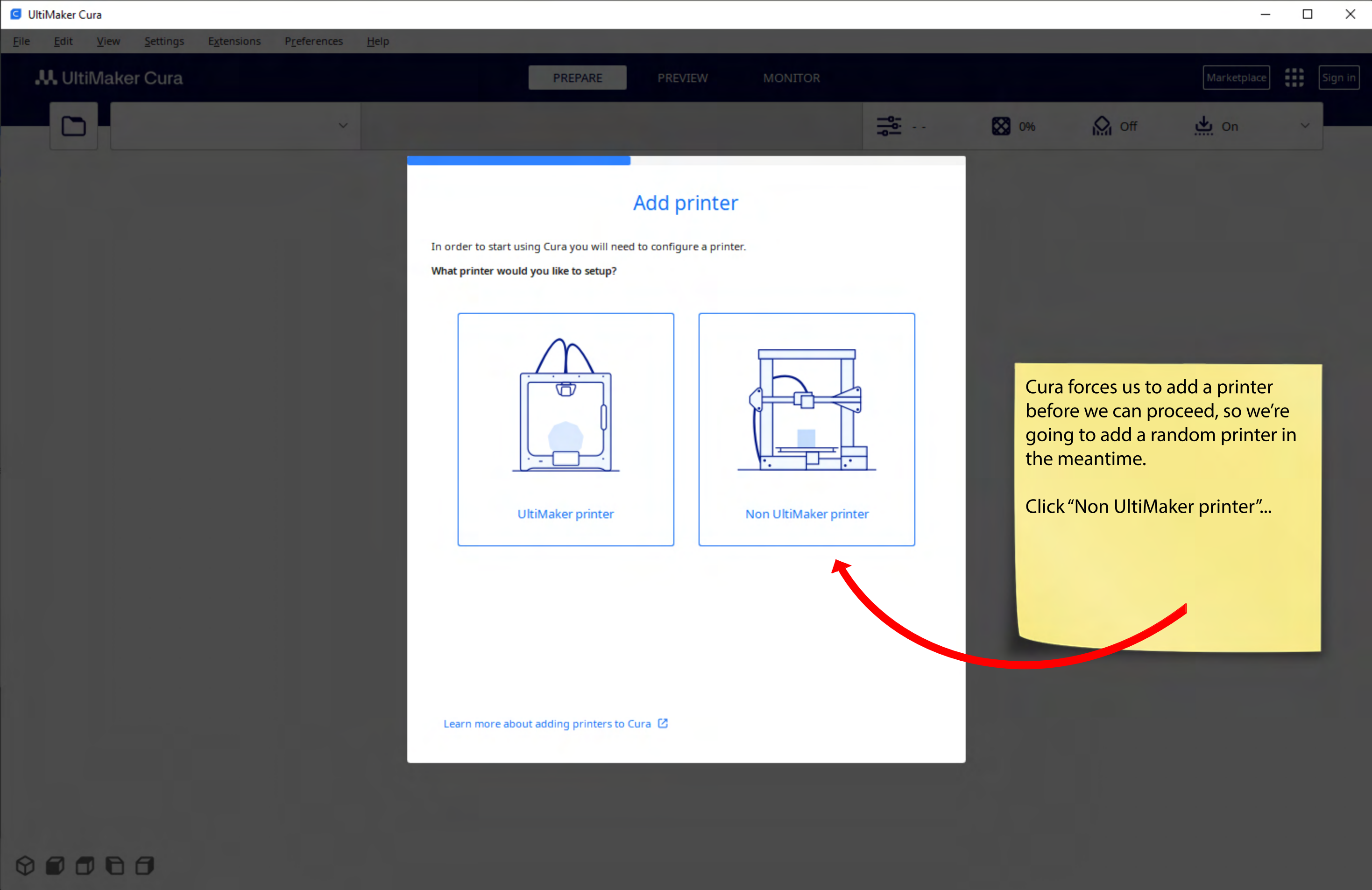
Data collected by Ultimaker Cura will not contain any personal information.

[More information](#)

Click next through more pop-ups...

Next





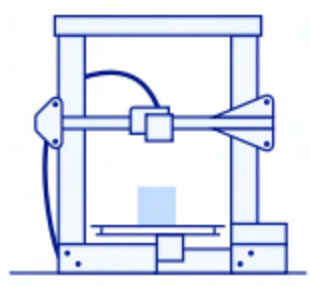
Folder icon | Settings icon | 0% | Off | On

### Add printer

In order to start using Cura you will need to configure a printer.  
What printer would you like to setup?



UltiMaker printer




Non UltiMaker printer

[Learn more about adding printers to Cura](#)

Cura forces us to add a printer before we can proceed, so we're going to add a random printer in the meantime.  
Click "Non UltiMaker printer"...



## Add a printer

Add a networked printer 


There is no printer found over your network.

Refresh

Add printer by IP

Add cloud printer 

Troubleshooting

Add a non-networked printer 

Click "Add a non-networked printer"...



Next

## Add a printer

Add a networked printer <

Add a non-networked printer v

- ▼ **Ultimaker B.V.**
  - Ultimaker S5
  - Ultimaker S3
  - Ultimaker 3
  - Ultimaker 3 Extended
  - Ultimaker 2+
  - Ultimaker 2+ Connect
  - Ultimaker 2 Extended+
  - Ultimaker 2
  - Ultimaker 2 Extended
  - Ultimaker 2 Extended with Olsson
  - Ultimaker 2 Go
  - Ultimaker 2 with Olsson Block
  - Ultimaker Original
  - Ultimaker Original Dual Extrusion
  - Ultimaker Original+
- > Custom
- > 101Hero

### Ultimaker S5

Manufacturer: Ultimaker B.V.  
Profile author: Ultimaker  
Printer name:

...and just click "Next" to continue.  
*It doesn't matter what printer is selected here because we are about to overwrite this setting.*

Next

# What's New



## All-new slicing engine

Following special beta releases to test the Arachne engine, we are pleased to announce our new slicing engine is here in Ultimaker Cura! This all-new engine uses variable line widths when preparing files for printing, meaning you can now print thin and intricate parts more accurately and with greater strength. [Watch the launch event](#) to learn more.

More prompts! "Skip" or "Next" through anything else that pops up here.



Skip

Next



Show Configuration Folder

- Show Online Troubleshooting
- Show Online Documentation
- Report a Bug
- What's New
- About...

MONITOR

Marketplace

Sign in

Ultimaker...



PLA  
AA 0.4

line - 0.1mm

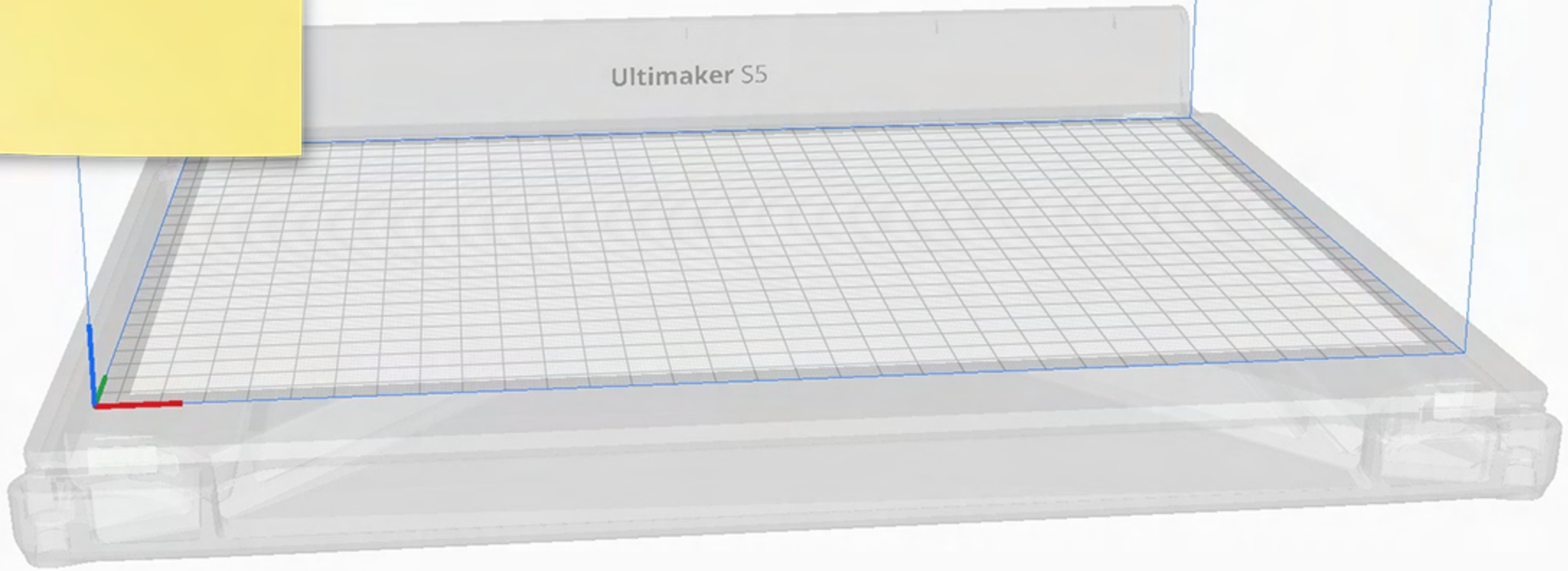
20%

Off

On

Once you're finally at the main page, click "Help" in the menu bar.

Then, click "Show Configuration Folder".





Ultimaker... 1 PLA AA 0.4 2 PLA AA 0.4 Fine - 0.1mm 20% Off On

< > 5.0 Grid Grid Share Tag More Search

cache	cura.cfg	cura.log	definition_change s	definitions	extruders	intent
machine_instance s	materials	plugins	plugins.json	quality	quality_changes	scripts
setting_visibility	themes	user	variants			

Favorites

- AirDrop
- Recents
- Applications
- Desktop
- Documents
- Downloads

Locations

- iCloud Drive
- Ultimaker-Cura-5.0.0...

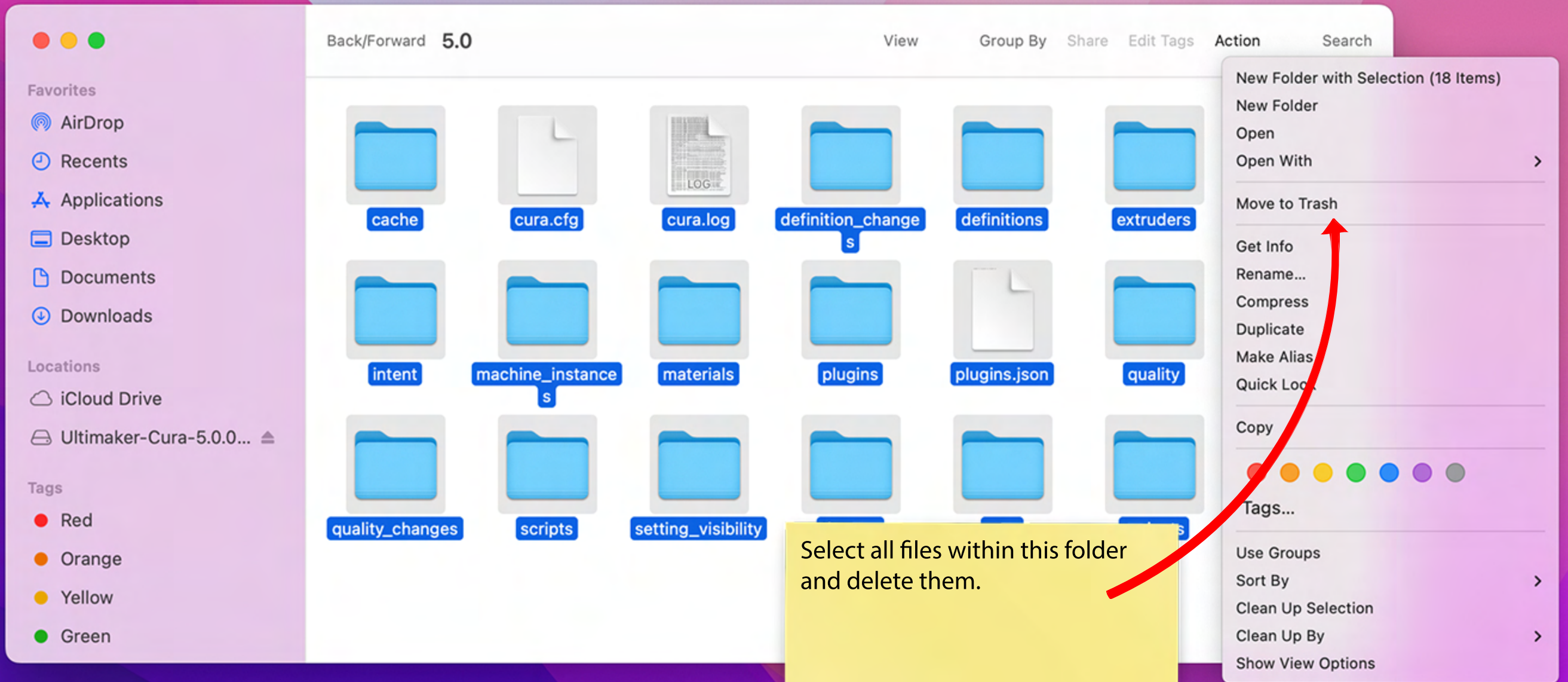
Tags

- Red
- Orange
- Yellow
- Green

The following configuration folder should pop-up.

Close Cura now (do not minimize), but keep this new folder open.







Back/Forward 5.0

View

Group By







Share

Edit Tags



Action

Search





### Favorites

-  AirDrop
-  Recents
-  Applications
-  Desktop
-  Documents
-  Downloads

### Locations

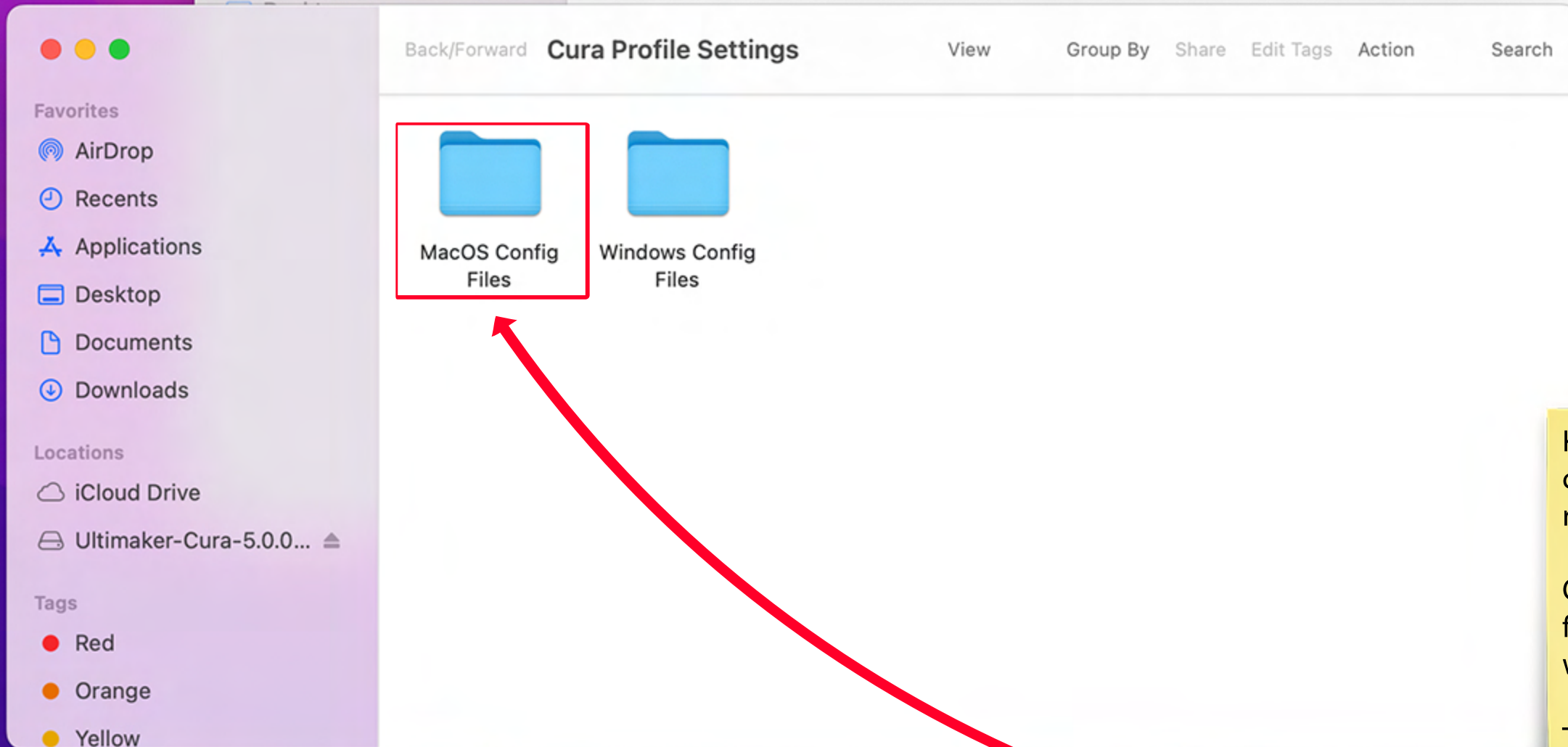
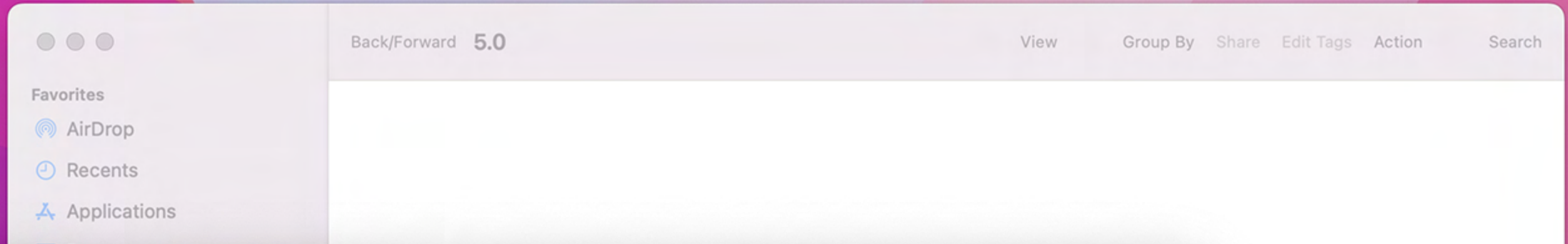
-  iCloud Drive
-  Ultimaker-Cura-5.0.0... ▲

### Tags

-  Red
-  Orange
-  Yellow
-  Green

The configuration folder should now be clear of all files.

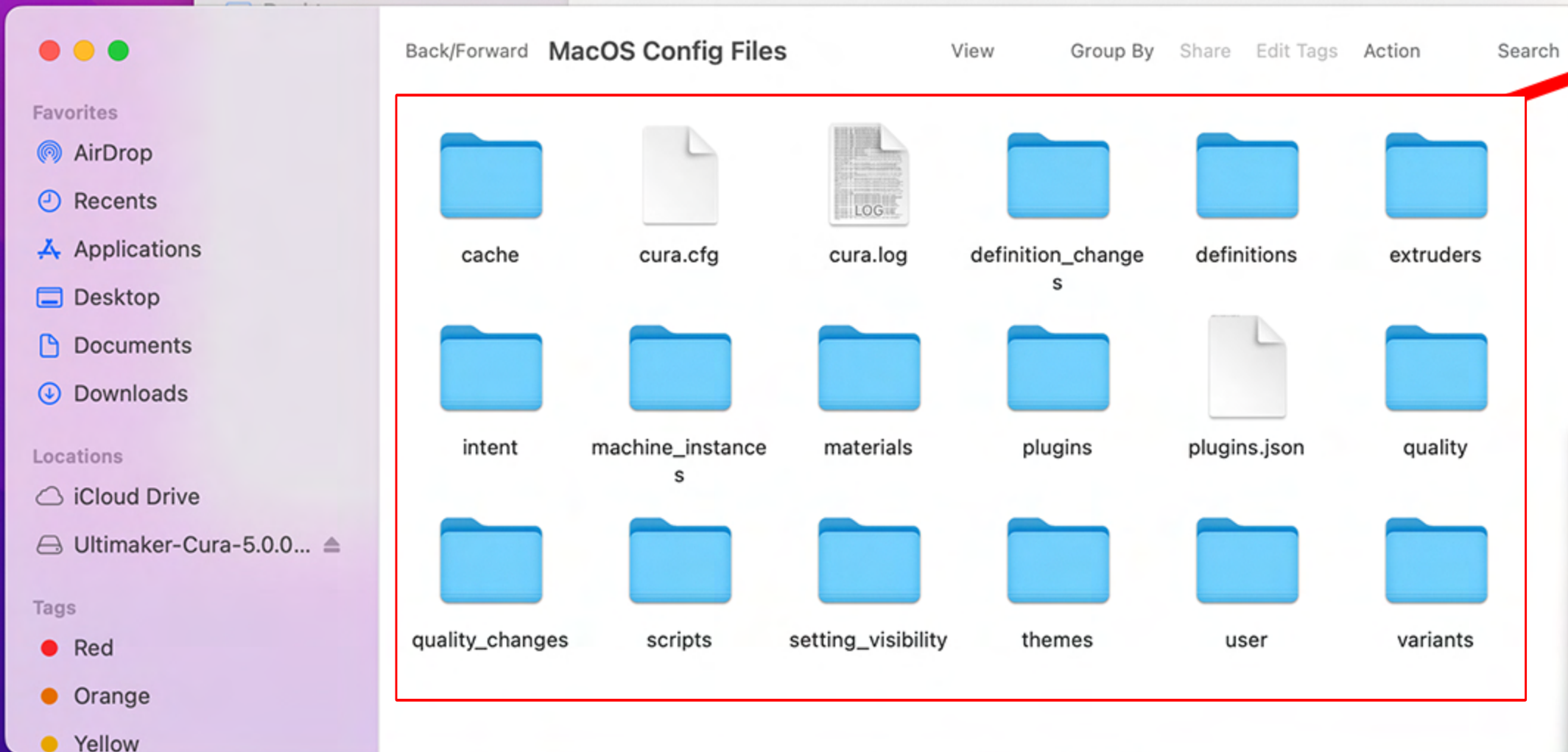
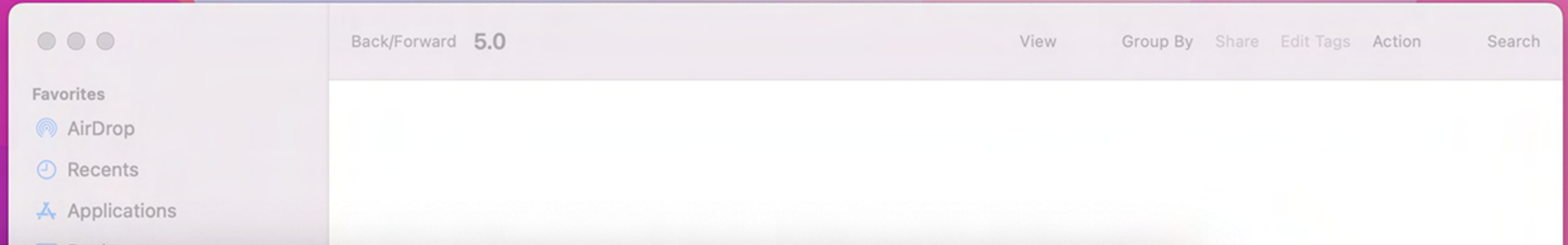




Keep your newly emptied configuration folder open (back right).

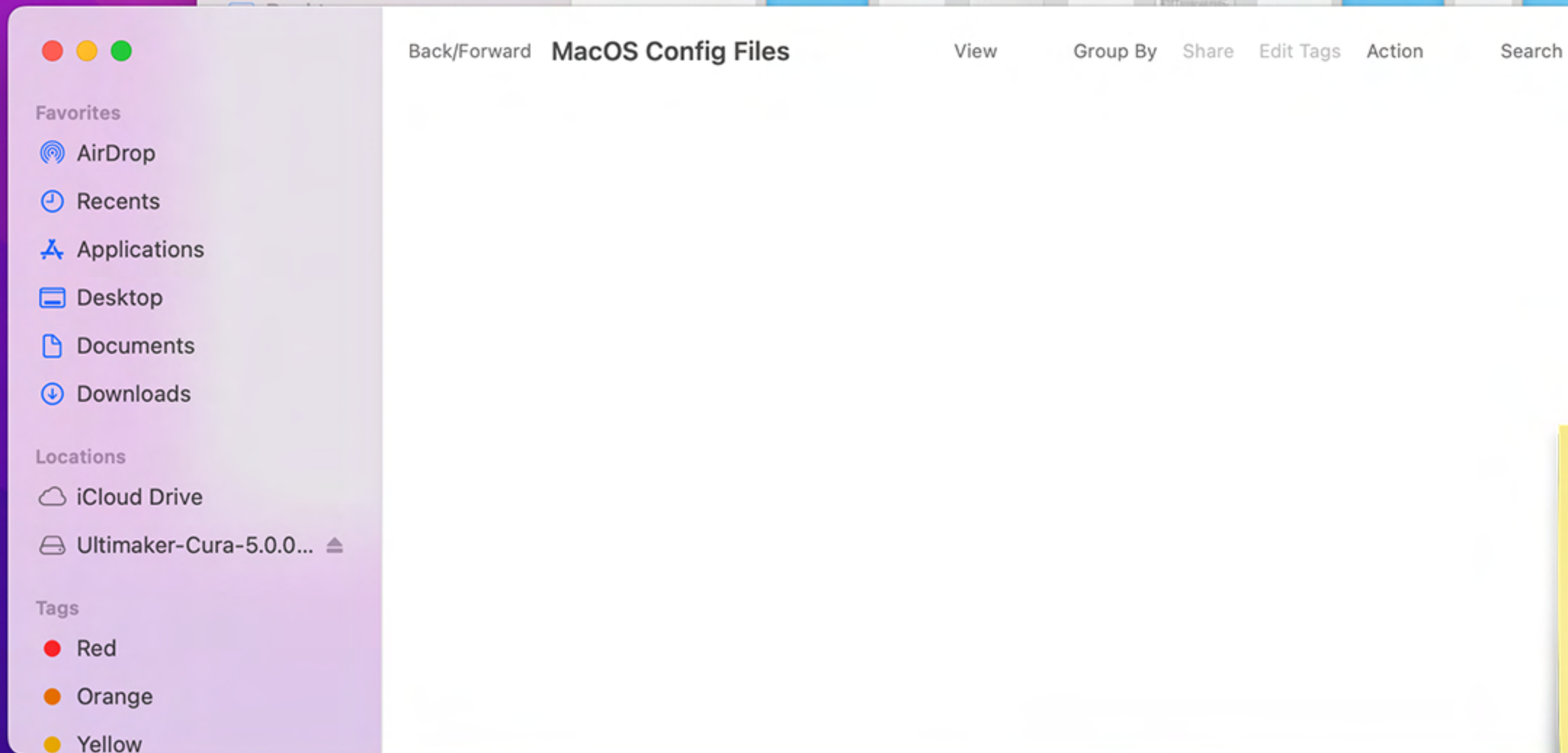
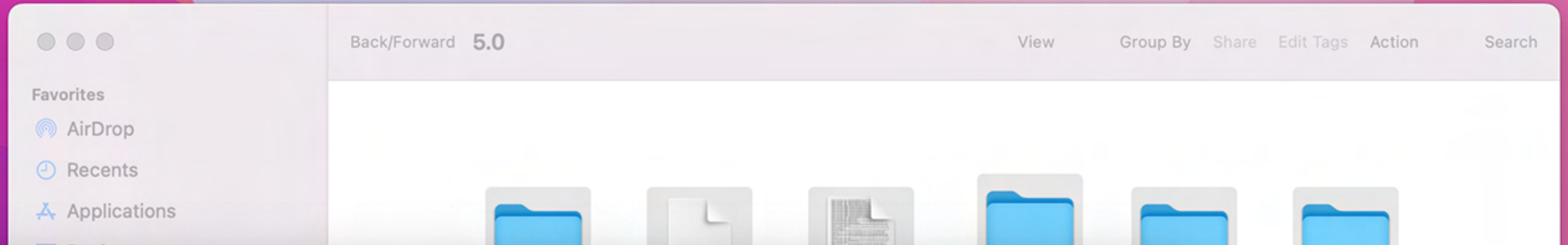
Open the "Cura Profile Settings" folder, downloaded from the lab website (front left).

There will be a folder called "MacOS Config Files". Open this.



Copy-paste OR drag all files inside "MacOS Config Files" into the empty configuration folder.

This will overwrite Cura's settings and add all profiles automatically.



After moving the files into the configuration folder, close the folders and re-open Cura.



Creality C... ▾



Generic PLA  
0.4mm Nozzle ▾



Arch315 Creali...uality - 0.2mm



10%



On

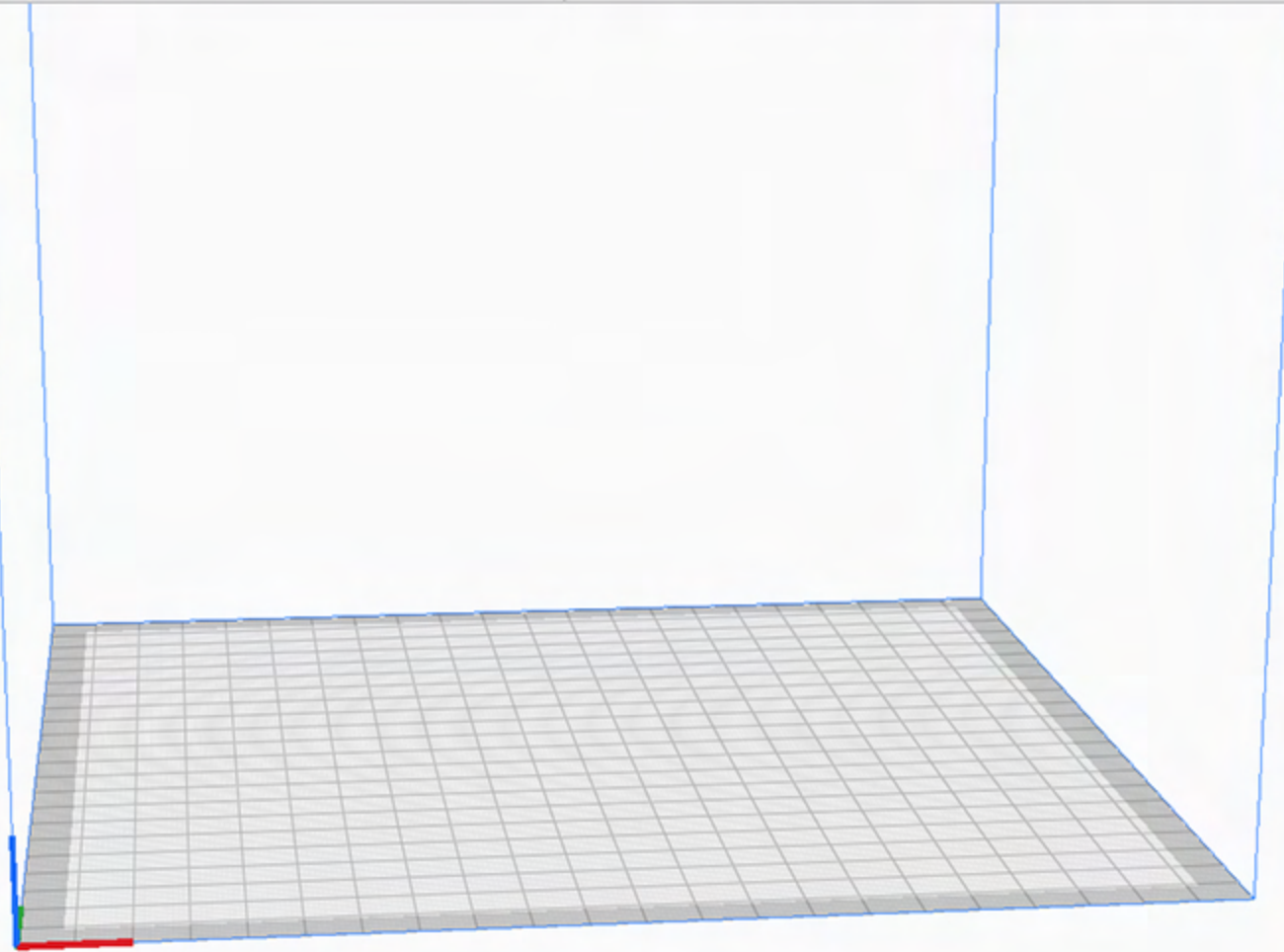


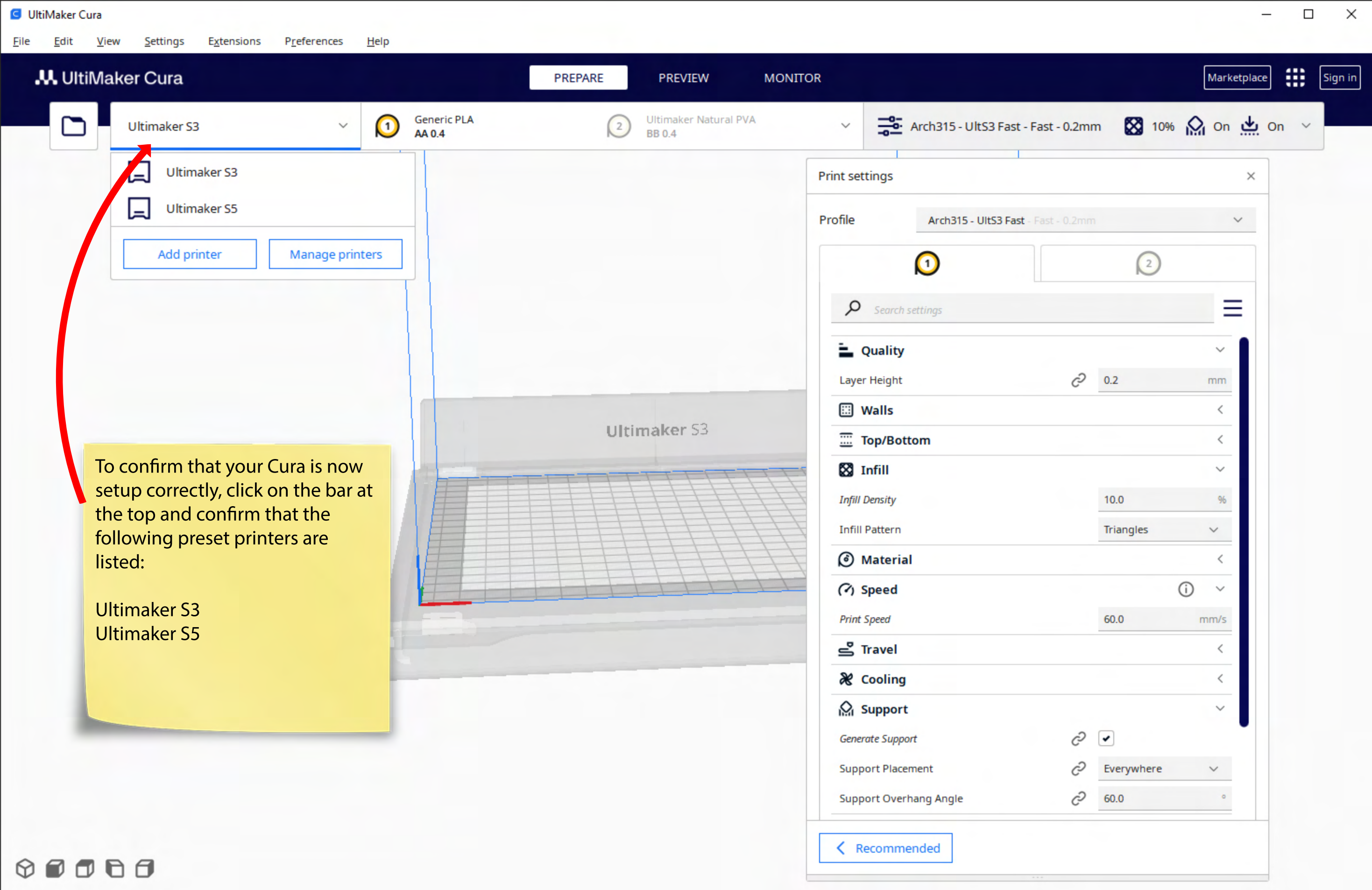
On



Cura should now open up with all of our printer farm profiles installed.

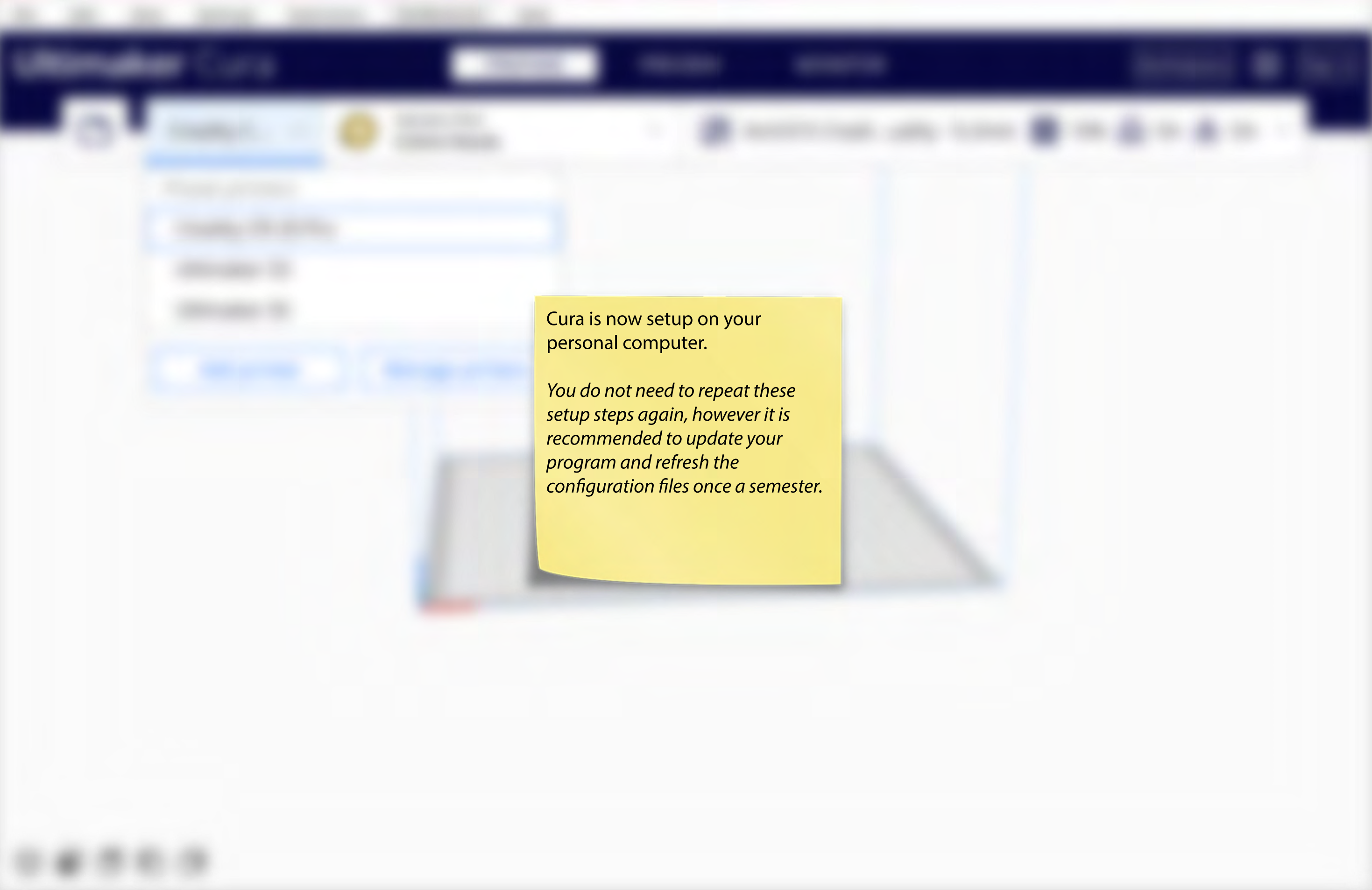
*If you get a firmware or beta pop-up at the bottom, just ignore it and X out of the window.*





To confirm that your Cura is now setup correctly, click on the bar at the top and confirm that the following preset printers are listed:

- Ultimaker S3
- Ultimaker S5

A blurred screenshot of a software installation window. The window has a dark blue header bar with several icons. Below the header, there are several panels and text fields. A yellow sticky note is placed over the center of the window, containing text about Cura setup. The background is a light gray color.

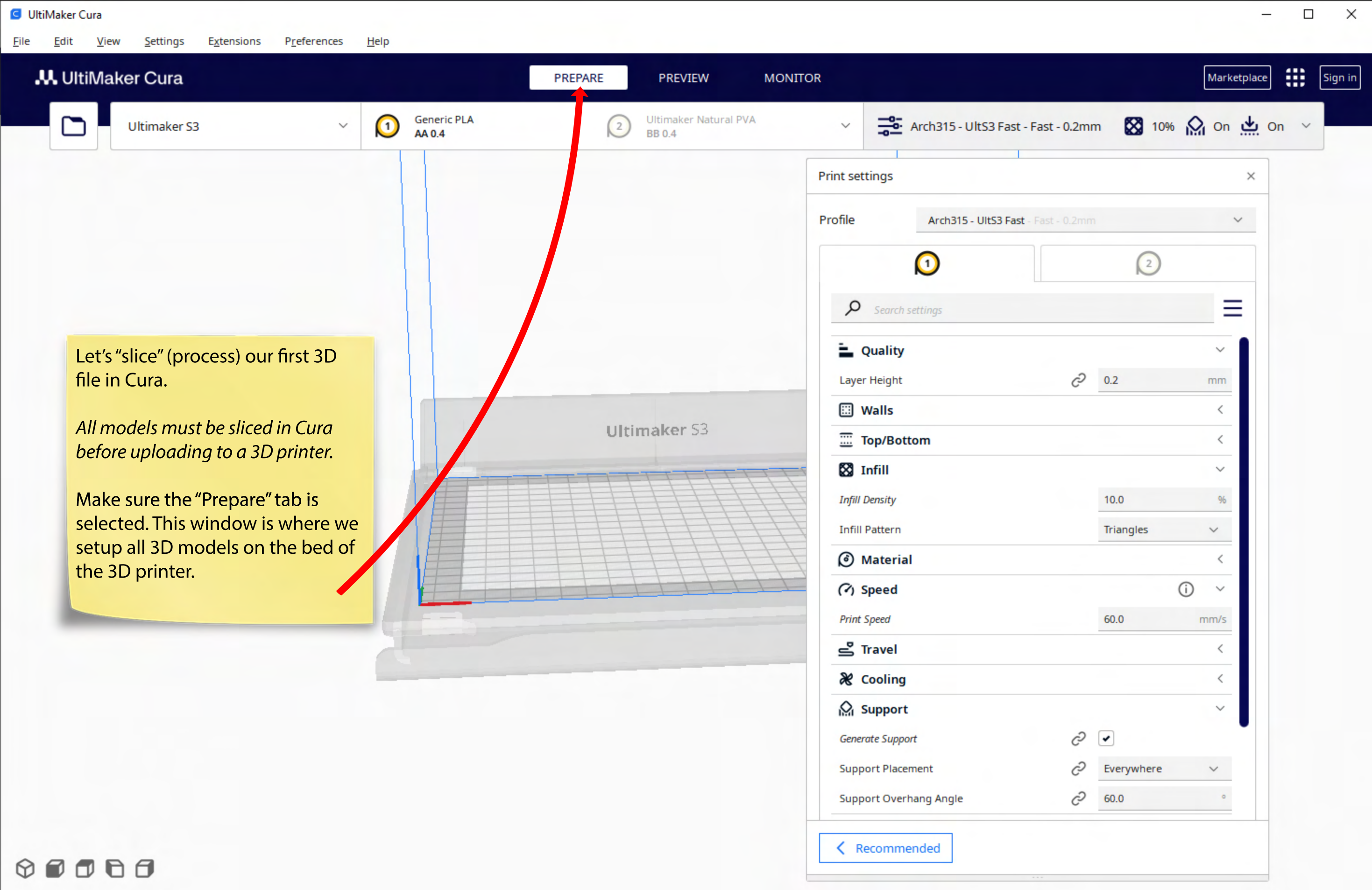
Cura is now setup on your personal computer.

*You do not need to repeat these setup steps again, however it is recommended to update your program and refresh the configuration files once a semester.*



# Chapter 3

## Slicing a File for 3D Printing



Let's "slice" (process) our first 3D file in Cura.

*All models must be sliced in Cura before uploading to a 3D printer.*

Make sure the "Prepare" tab is selected. This window is where we setup all 3D models on the bed of the 3D printer.

Print settings

Profile Arch315 - UltS3 Fast - Fast - 0.2mm

1 2

Search settings

**Quality**

Layer Height 0.2 mm

**Walls**

**Top/Bottom**

**Infill**

Infill Density 10.0 %

Infill Pattern Triangles

**Material**

**Speed**

Print Speed 60.0 mm/s

**Travel**

**Cooling**

**Support**

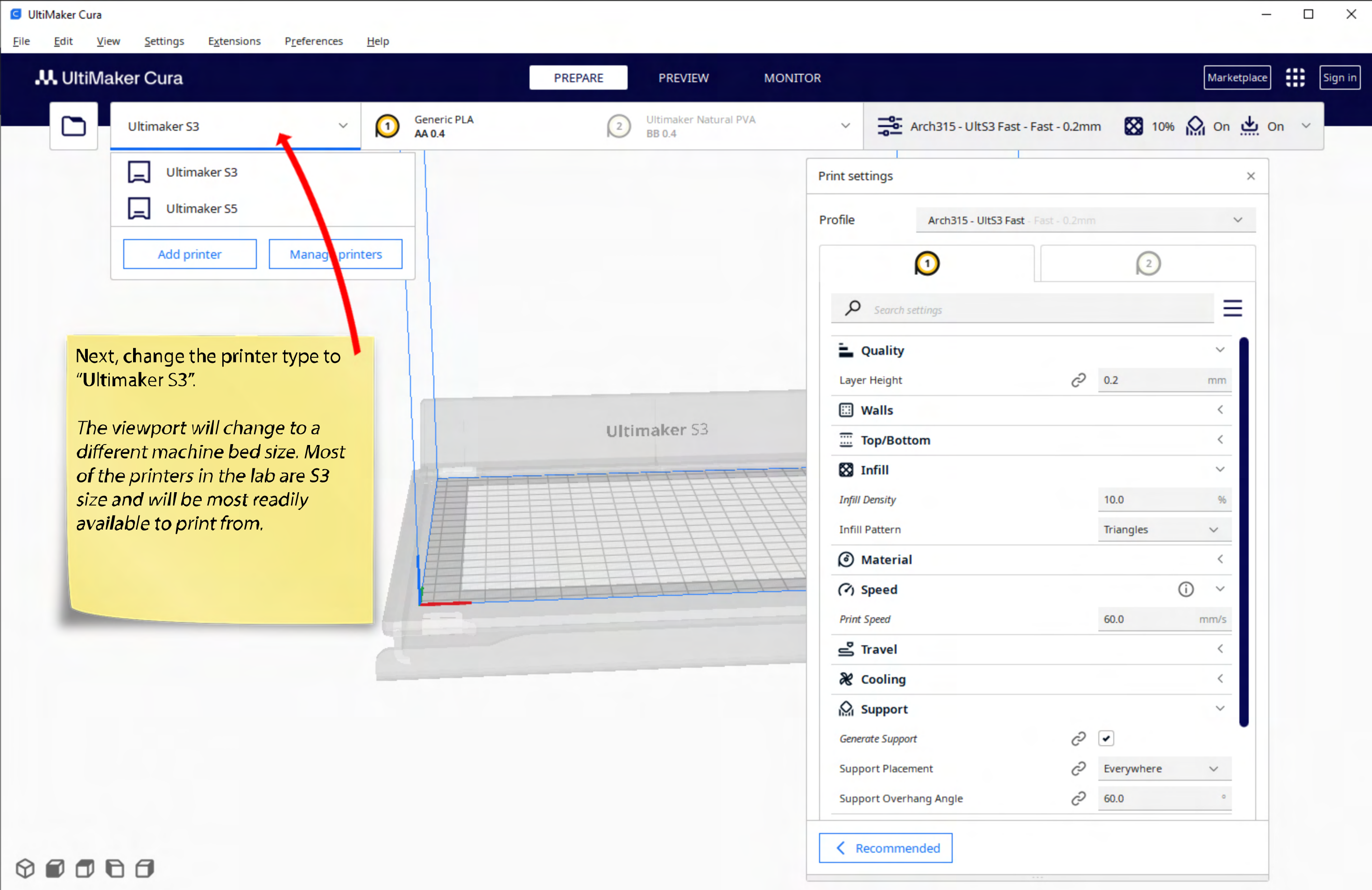
Generate Support

Support Placement Everywhere

Support Overhang Angle 60.0 °

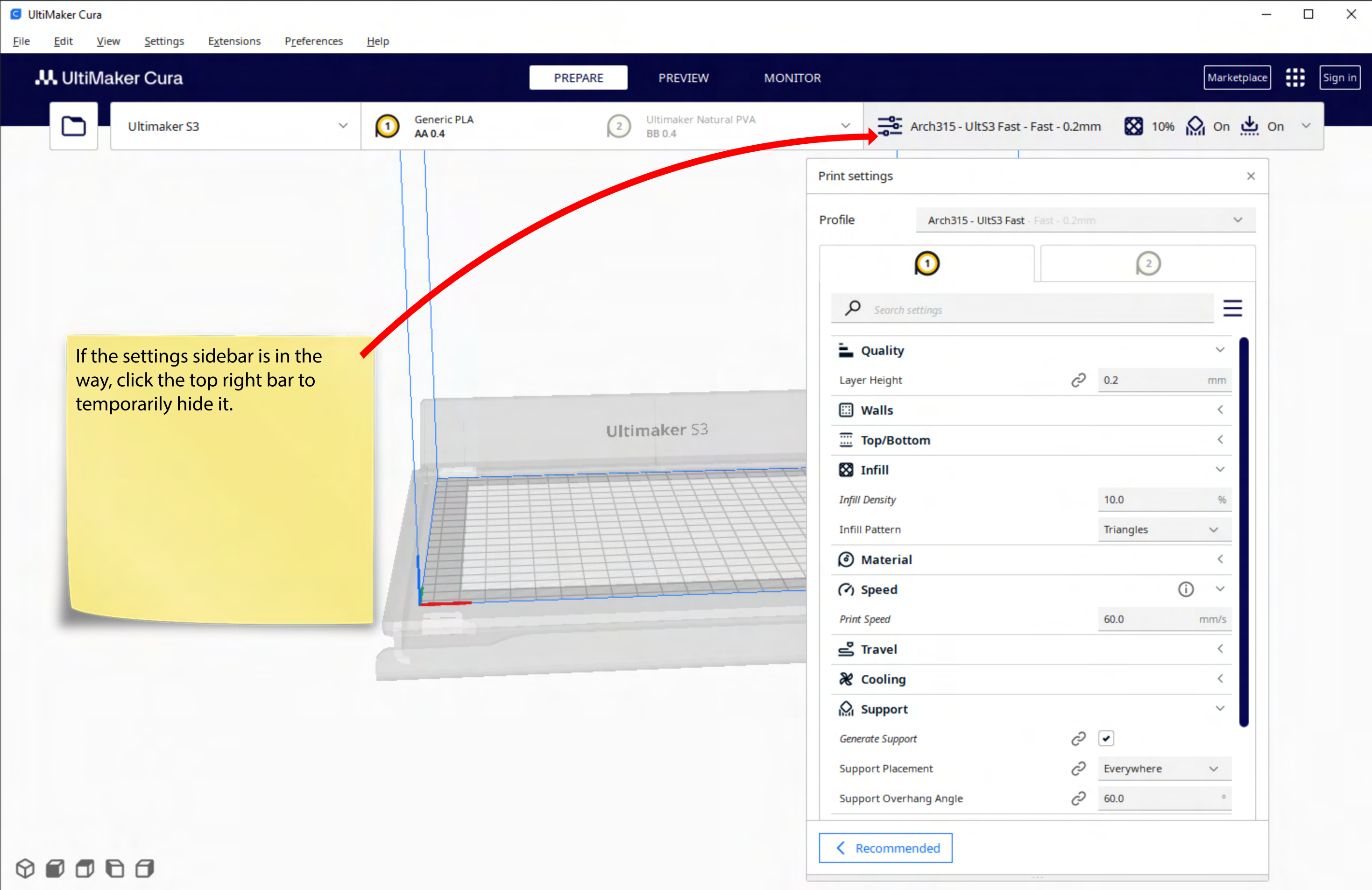
< Recommended





Next, change the printer type to "Ultimaker S3".

The viewport will change to a different machine bed size. Most of the printers in the lab are S3 size and will be most readily available to print from.



Ultimaker S3 Generic PLA AA 0.4 Ultimaker Natural PVA BB 0.4 Arch315 - UltS3 Fast - Fast - 0.2mm 10% On On

If the settings sidebar is in the way, click the top right bar to temporarily hide it.

### Print settings

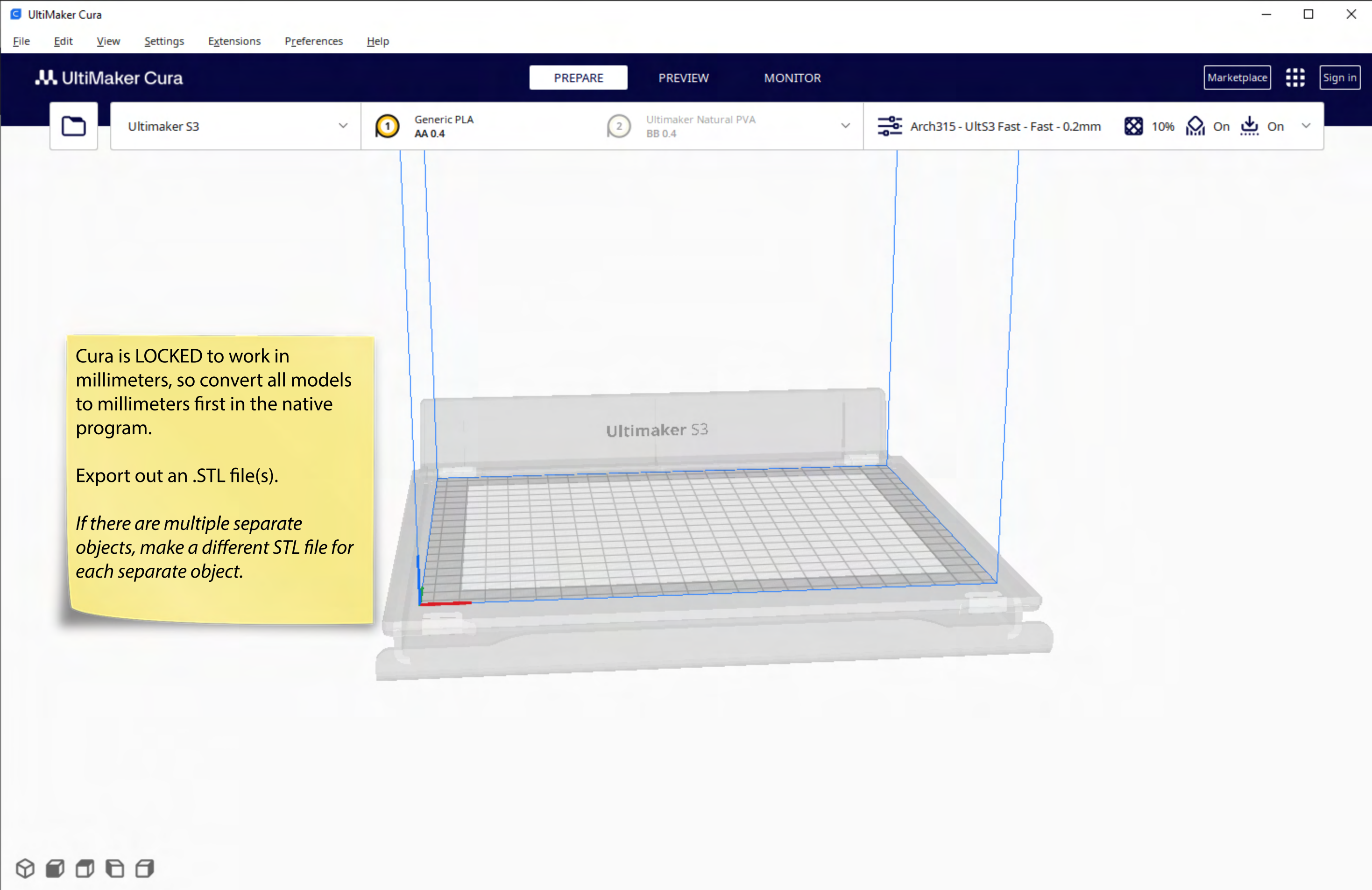
Profile: Arch315 - UltS3 Fast - Fast - 0.2mm

1 2

Search settings

- Quality**
  - Layer Height: 0.2 mm
- Walls**
- Top/Bottom**
- Infill**
  - Infill Density: 10.0 %
  - Infill Pattern: Triangles
- Material**
- Speed**
  - Print Speed: 60.0 mm/s
- Travel**
- Cooling**
- Support**
  - Generate Support:
  - Support Placement: Everywhere
  - Support Overhang Angle: 60.0 °

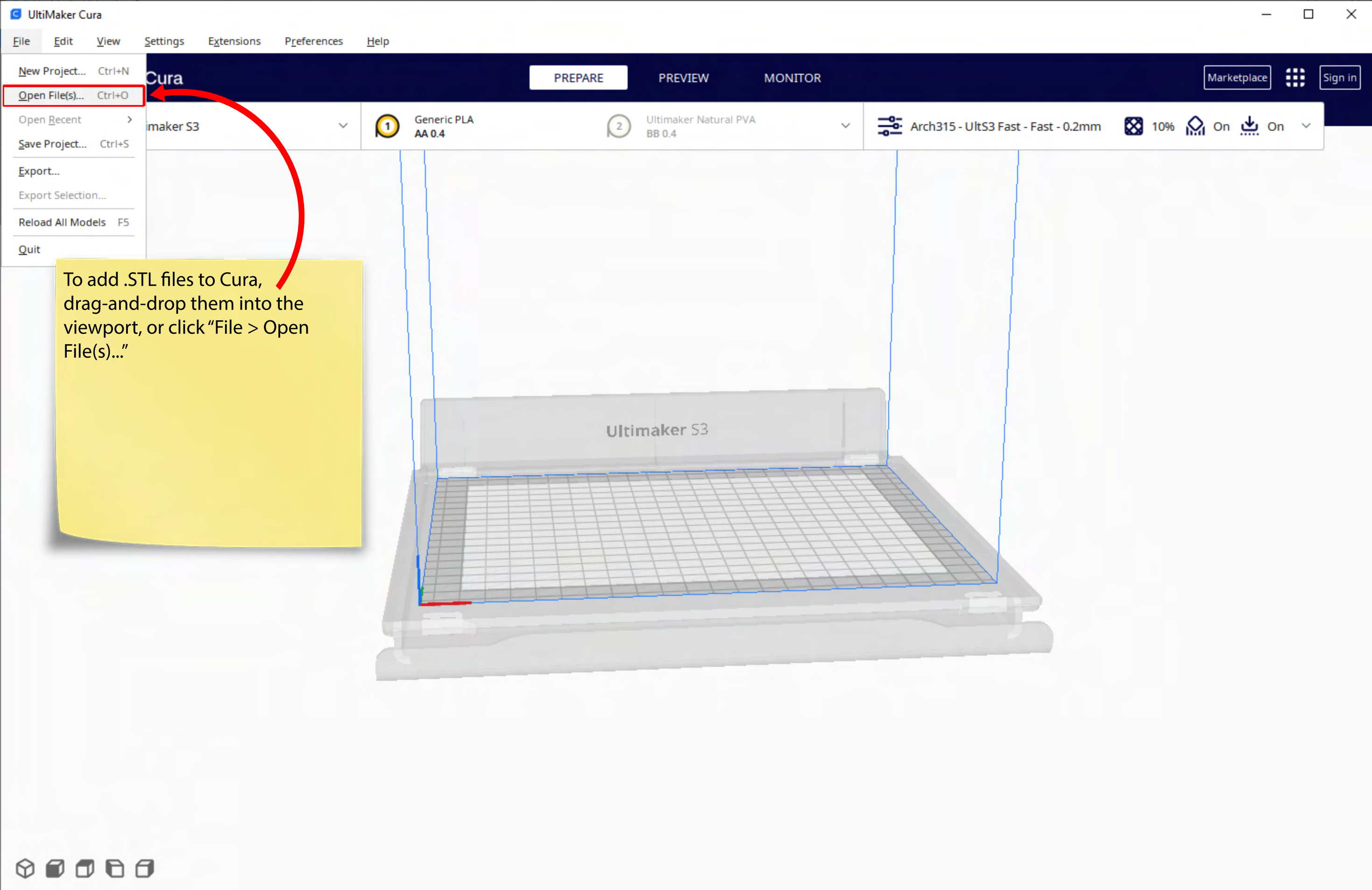
< Recommended



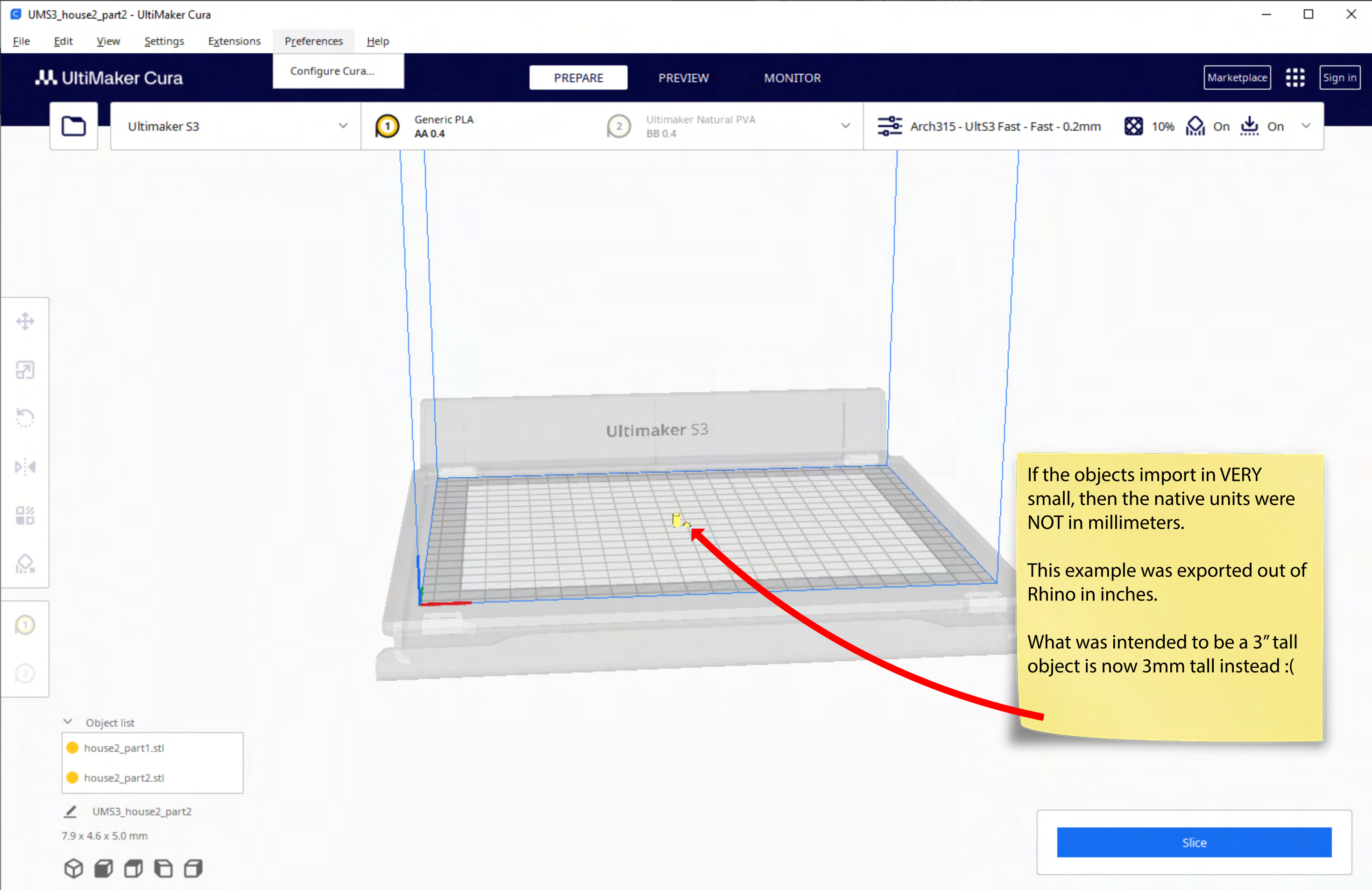
Cura is LOCKED to work in millimeters, so convert all models to millimeters first in the native program.

Export out an .STL file(s).

*If there are multiple separate objects, make a different STL file for each separate object.*



To add .STL files to Cura, drag-and-drop them into the viewport, or click "File > Open File(s)..."

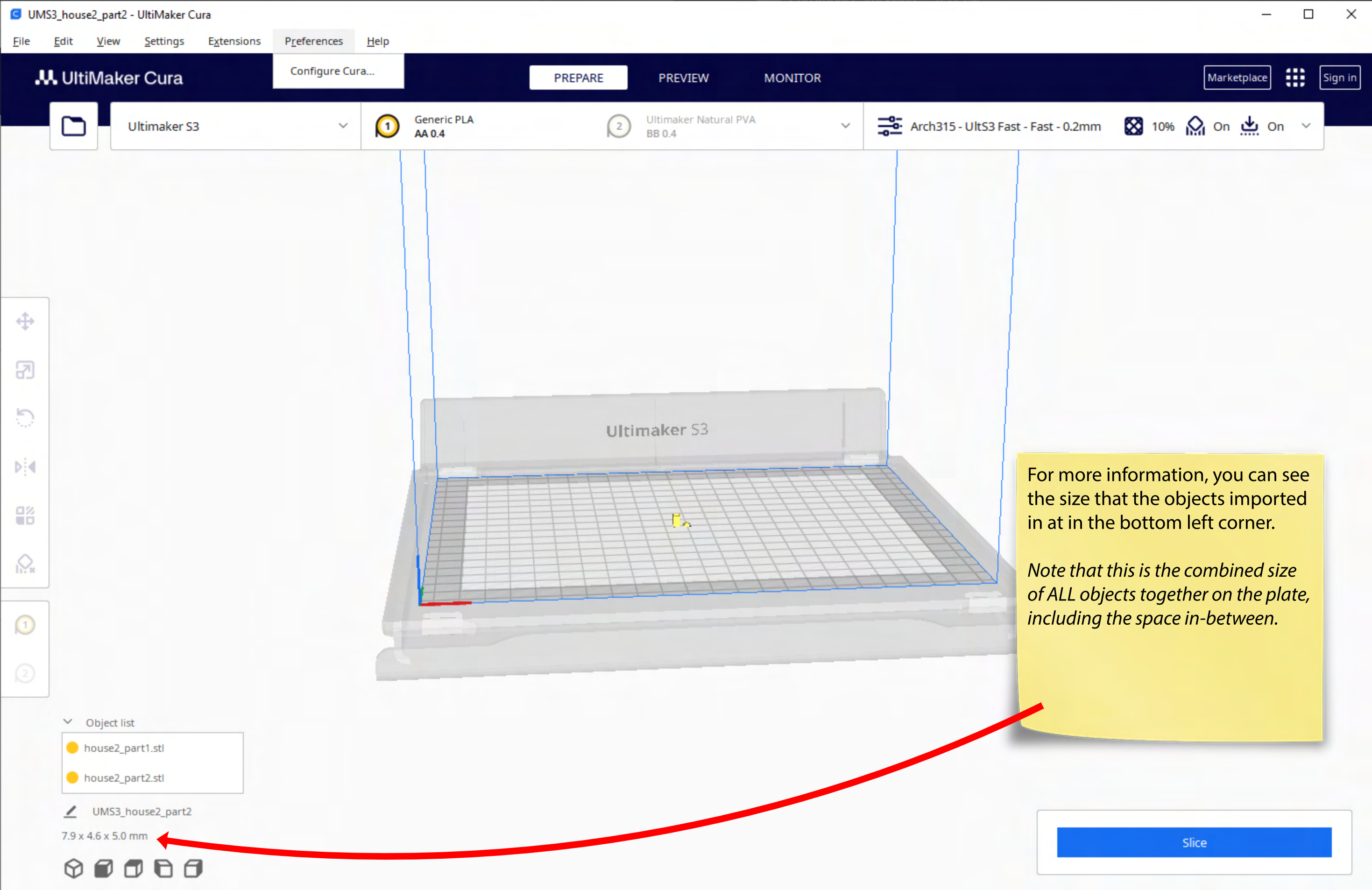


If the objects import in VERY small, then the native units were NOT in millimeters.

This example was exported out of Rhino in inches.

What was intended to be a 3" tall object is now 3mm tall instead :(

Slice



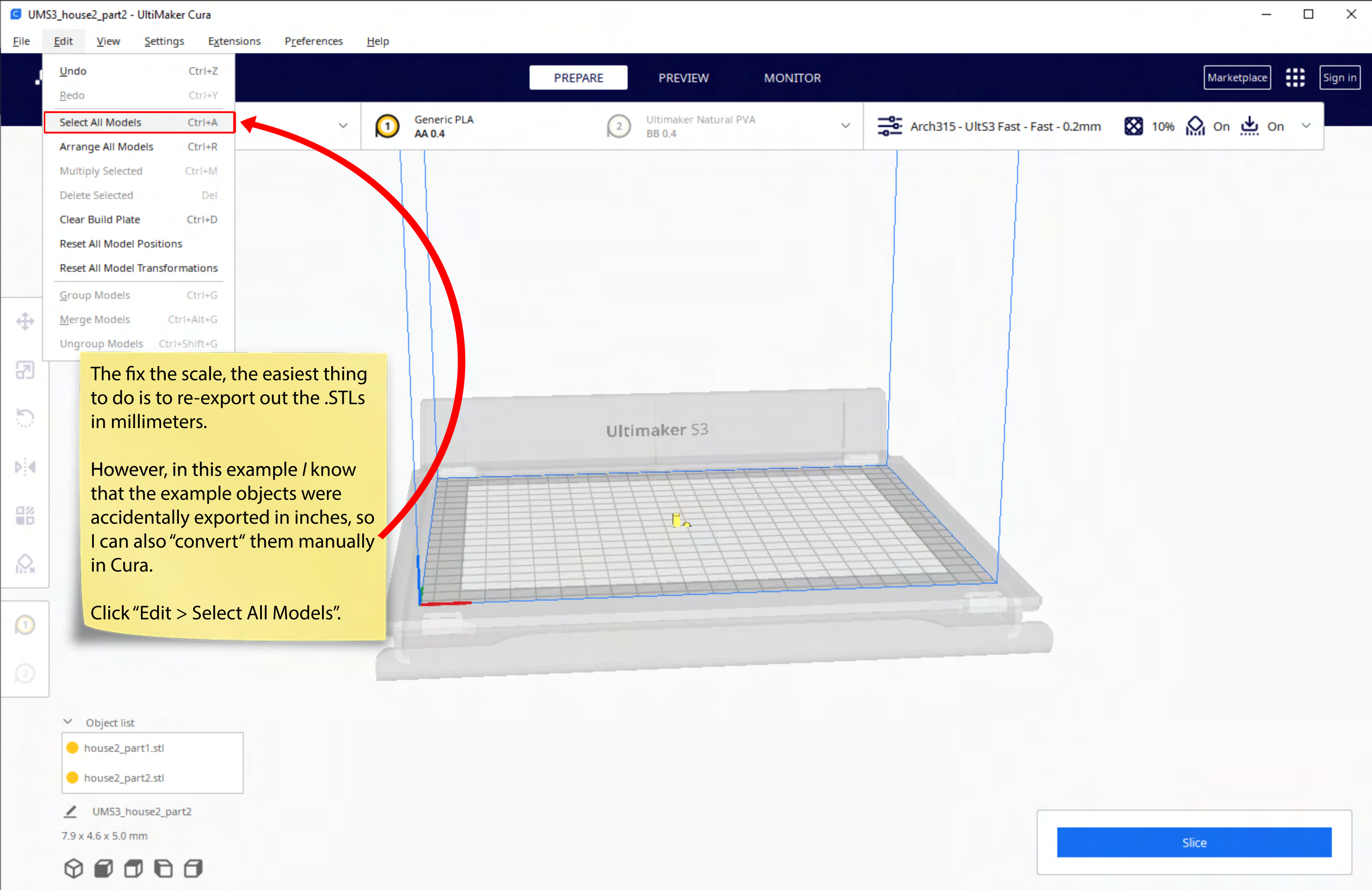
For more information, you can see the size that the objects imported in at in the bottom left corner.

*Note that this is the combined size of ALL objects together on the plate, including the space in-between.*

- Object list
- house2\_part1.stl
- house2\_part2.stl

UMS3\_house2\_part2  
7.9 x 4.6 x 5.0 mm

Slice



- Undo Ctrl+Z
- Redo Ctrl+Y
- Select All Models Ctrl+A
- Arrange All Models Ctrl+R
- Multiply Selected Ctrl+M
- Delete Selected Del
- Clear Build Plate Ctrl+D
- Reset All Model Positions
- Reset All Model Transformations
- Group Models Ctrl+G
- Merge Models Ctrl+Alt+G
- Ungroup Models Ctrl+Shift+G

The fix the scale, the easiest thing to do is to re-export out the .STLs in millimeters.

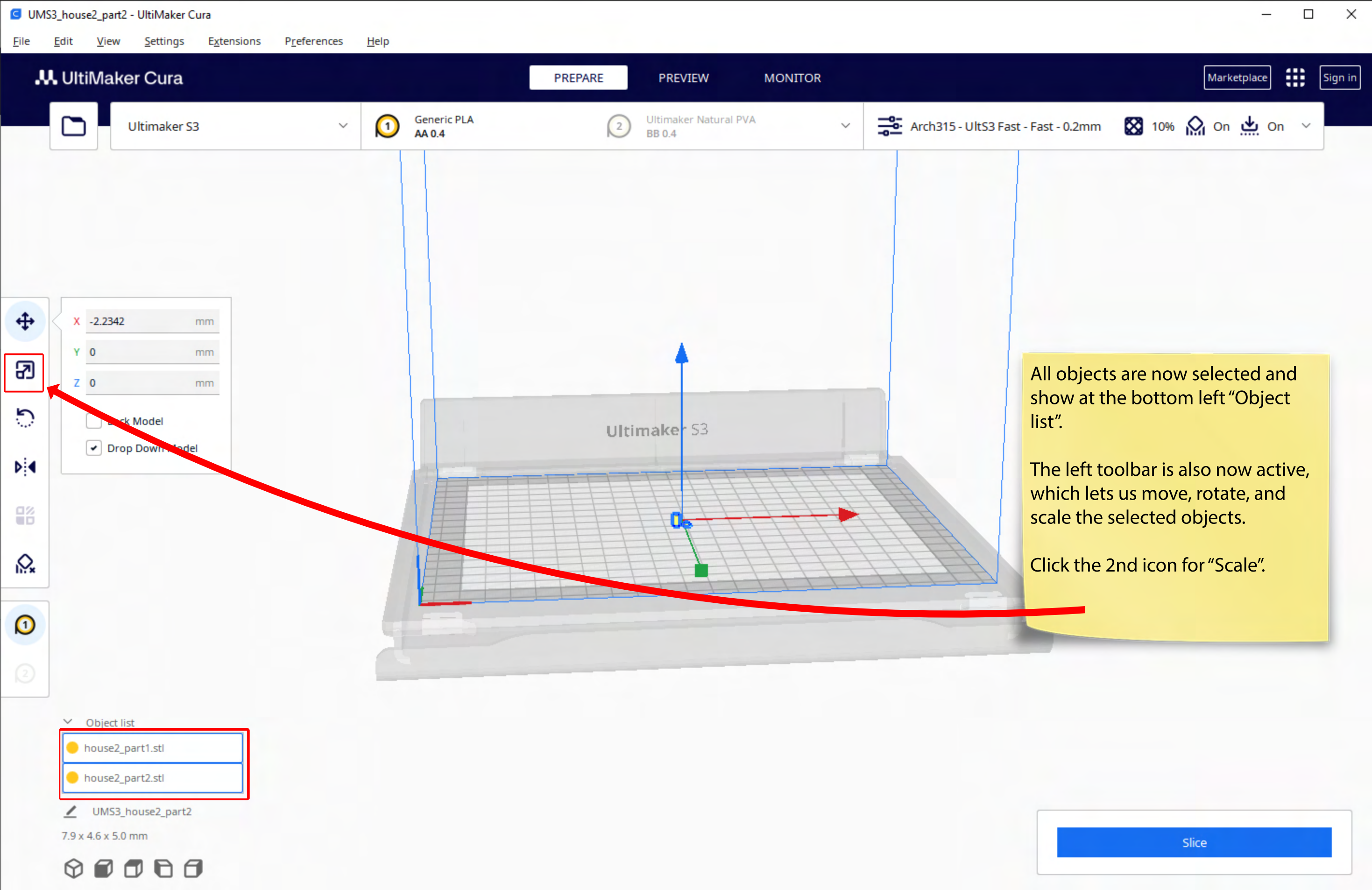
However, in this example I know that the example objects were accidentally exported in inches, so I can also "convert" them manually in Cura.

Click "Edit > Select All Models".

- Object list
- house2\_part1.stl
  - house2\_part2.stl

UMS3\_house2\_part2  
7.9 x 4.6 x 5.0 mm

Slice



Ultimaker S3 Generic PLA AA 0.4 Ultimaker Natural PVA BB 0.4 Arch315 - UltS3 Fast - Fast - 0.2mm 10% On On

Positioning tool: X: -2.2342 mm, Y: 0 mm, Z: 0 mm. Includes checkboxes for 'Lock Model' and 'Drop Down Model'.

All objects are now selected and show at the bottom left "Object list".

The left toolbar is also now active, which lets us move, rotate, and scale the selected objects.

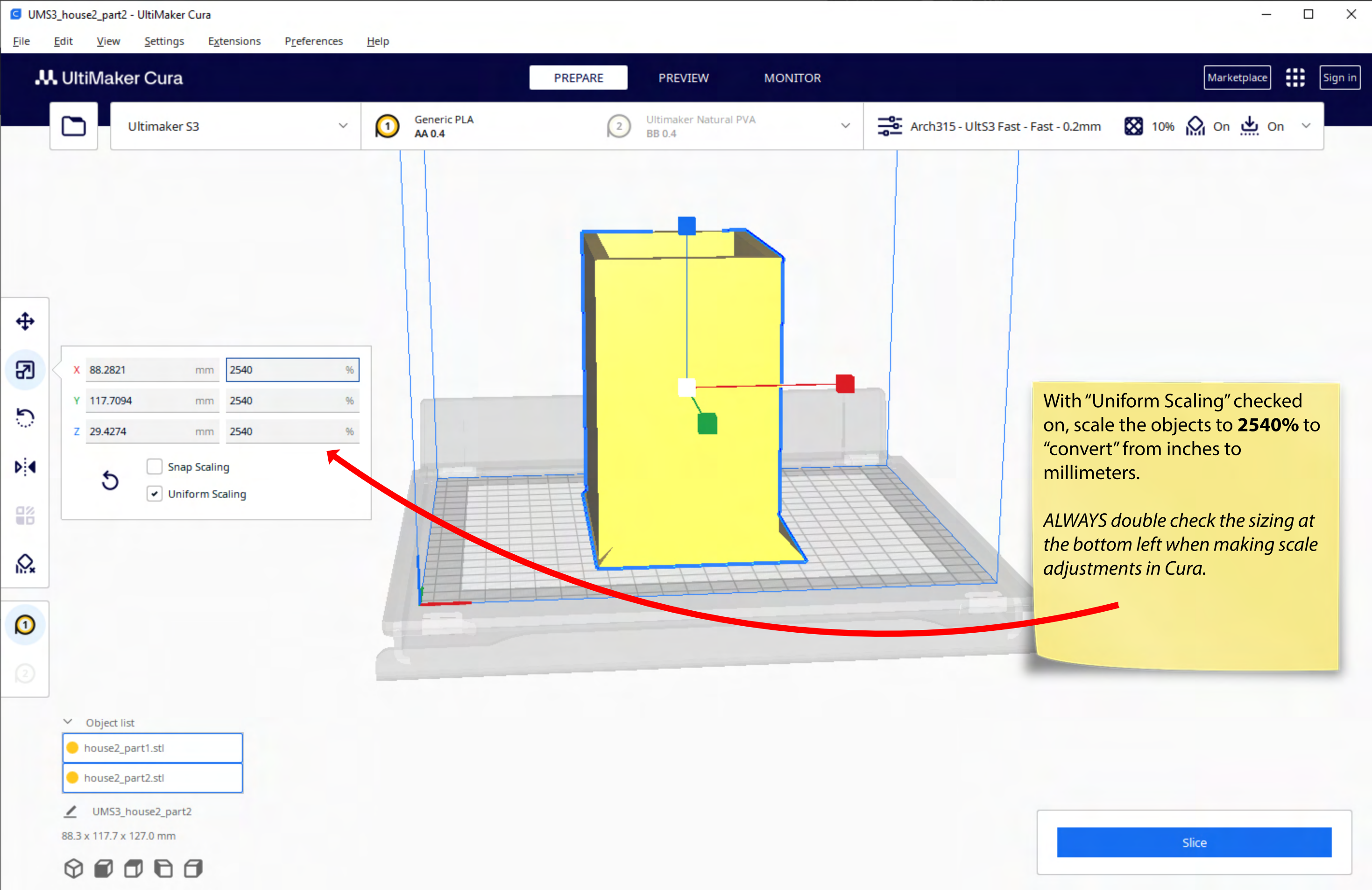
Click the 2nd icon for "Scale".

- Object list
- house2\_part1.stl
- house2\_part2.stl

UMS3\_house2\_part2  
7.9 x 4.6 x 5.0 mm

Slice





X	88.2821	mm	2540	%
Y	117.7094	mm	2540	%
Z	29.4274	mm	2540	%

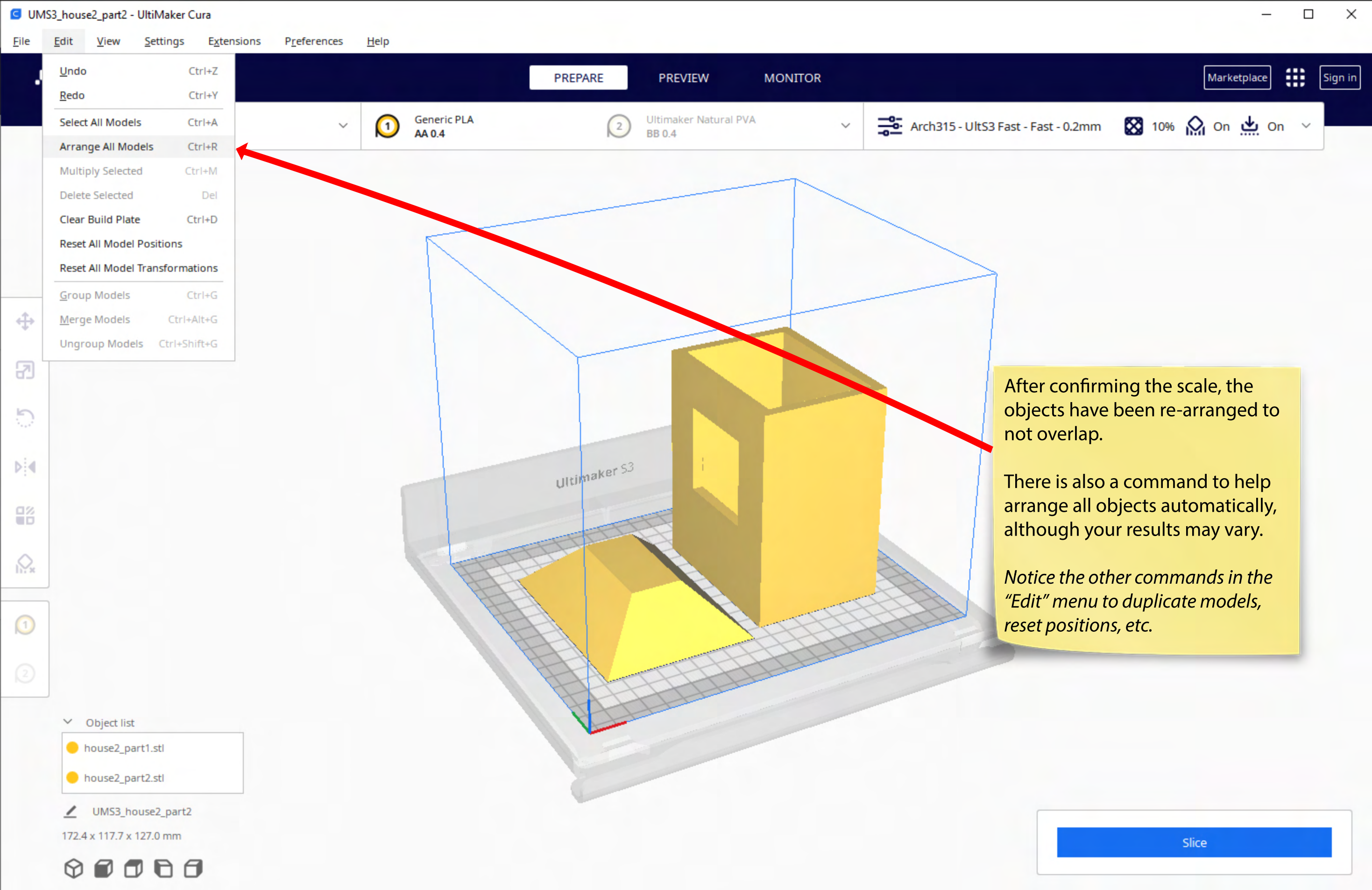
Snap Scaling  
 Uniform Scaling

With "Uniform Scaling" checked on, scale the objects to **2540%** to "convert" from inches to millimeters.

*ALWAYS double check the sizing at the bottom left when making scale adjustments in Cura.*

Slice

- Object list
- house2\_part1.stl
  - house2\_part2.stl
- UMS3\_house2\_part2
- 88.3 x 117.7 x 127.0 mm



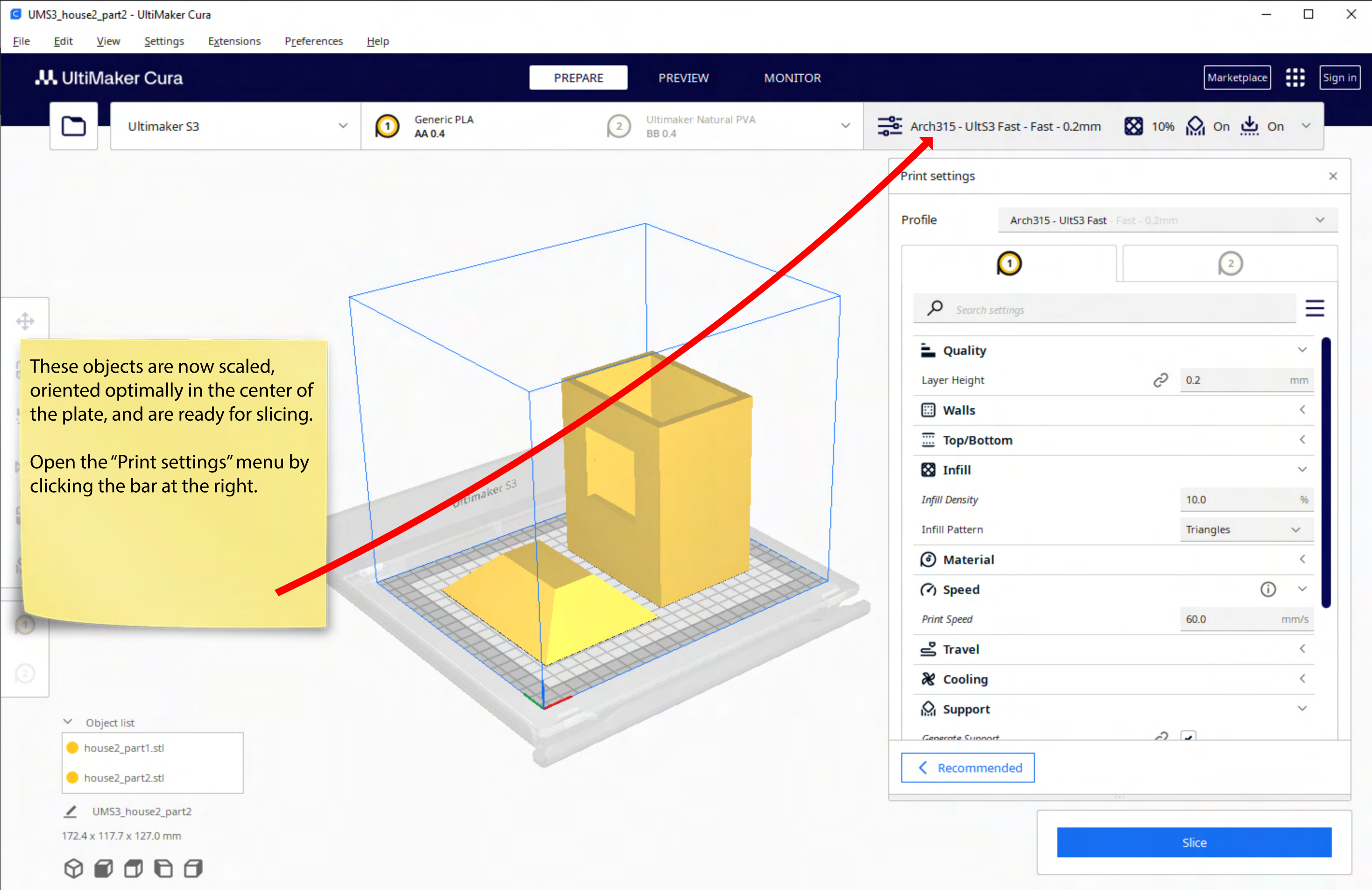
- Undo Ctrl+Z
- Redo Ctrl+Y
- Select All Models Ctrl+A
- Arrange All Models Ctrl+R**
- Multiply Selected Ctrl+M
- Delete Selected Del
- Clear Build Plate Ctrl+D
- Reset All Model Positions
- Reset All Model Transformations
- Group Models Ctrl+G
- Merge Models Ctrl+Alt+G
- Ungroup Models Ctrl+Shift+G

After confirming the scale, the objects have been re-arranged to not overlap.

There is also a command to help arrange all objects automatically, although your results may vary.

*Notice the other commands in the "Edit" menu to duplicate models, reset positions, etc.*

Slice



Ultimaker S3 Generic PLA AA 0.4 Ultimaker Natural PVA BB 0.4 Arch315 - UltS3 Fast - Fast - 0.2mm 10% On On

These objects are now scaled, oriented optimally in the center of the plate, and are ready for slicing.

Open the "Print settings" menu by clicking the bar at the right.

### Print settings

Profile: Arch315 - UltS3 Fast - Fast - 0.2mm

1 2

Search settings

- Quality**
  - Layer Height: 0.2 mm
- Walls**
- Top/Bottom**
- Infill**
  - Infill Density: 10.0 %
  - Infill Pattern: Triangles
- Material**
- Speed**
  - Print Speed: 60.0 mm/s
- Travel**
- Cooling**
- Support**

Generate Support

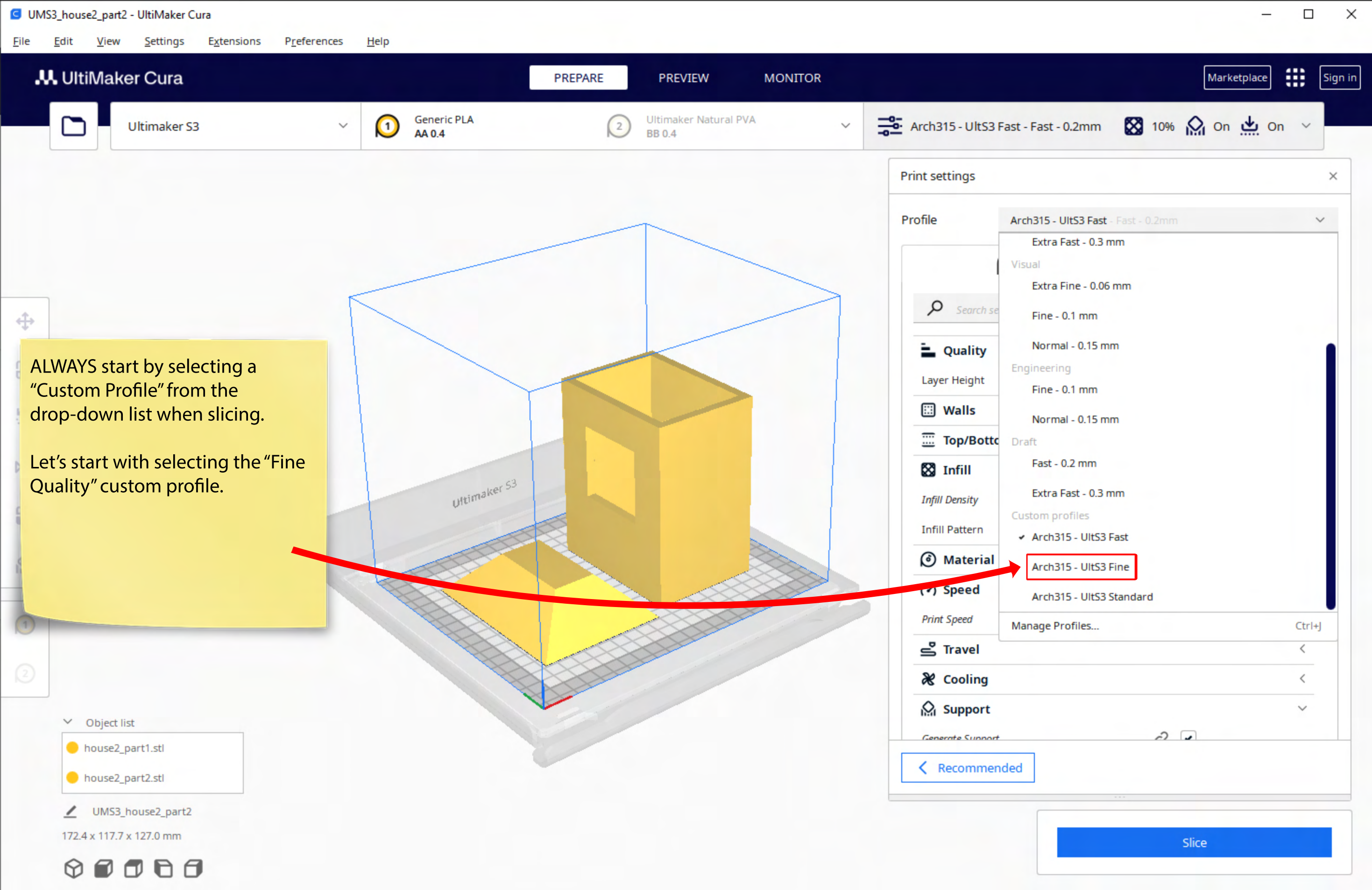
Recommended

- Object list
- house2\_part1.stl
  - house2\_part2.stl

UMS3\_house2\_part2  
172.4 x 117.7 x 127.0 mm



Slice



Ultimaker S3
Generic PLA AA 0.4
Ultimaker Natural PVA BB 0.4
Arch315 - UltS3 Fast - Fast - 0.2mm
10%
On
On

ALWAYS start by selecting a "Custom Profile" from the drop-down list when slicing.

Let's start with selecting the "Fine Quality" custom profile.



Print settings

Profile: Arch315 - UltS3 Fast - Fast - 0.2mm

- Extra Fast - 0.3 mm
- Visual
- Extra Fine - 0.06 mm
- Fine - 0.1 mm
- Normal - 0.15 mm
- Engineering
- Fine - 0.1 mm
- Normal - 0.15 mm
- Draft
- Fast - 0.2 mm
- Extra Fast - 0.3 mm
- Custom profiles
- Arch315 - UltS3 Fast
- Arch315 - UltS3 Fine**
- Arch315 - UltS3 Standard
- Manage Profiles... Ctrl+j

Quality

Layer Height

Walls

Top/Bottom

Infill

Infill Density

Infill Pattern

Material

Speed

Print Speed

Travel

Cooling

Support

Generate Support

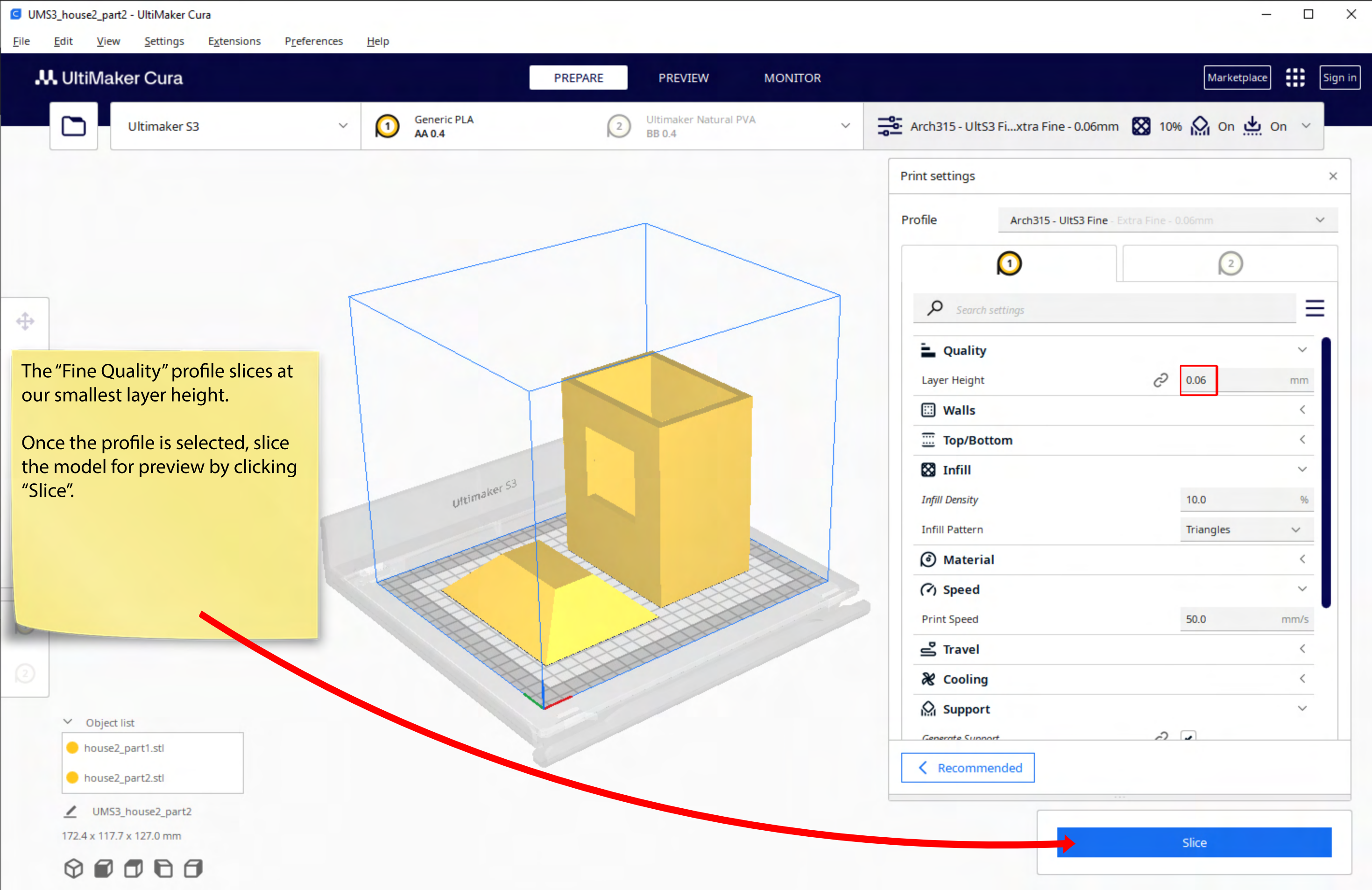
Recommended

- Object list
- house2\_part1.stl
  - house2\_part2.stl

UMS3\_house2\_part2  
172.4 x 117.7 x 127.0 mm



Slice



The "Fine Quality" profile slices at our smallest layer height.

Once the profile is selected, slice the model for preview by clicking "Slice".

### Print settings

Profile: Arch315 - UltS3 Fine - Extra Fine - 0.06mm

1 2

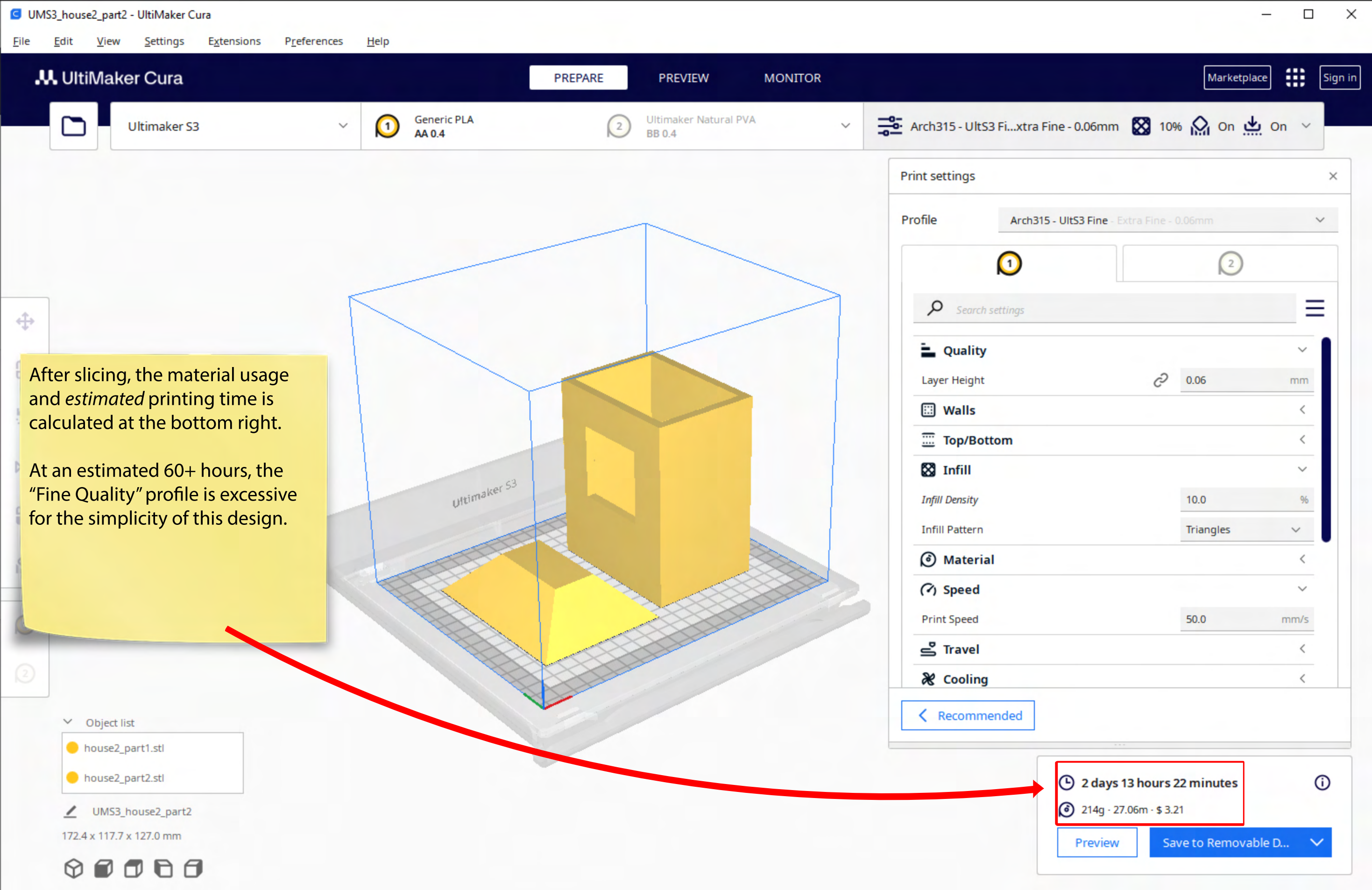
Search settings

- Quality
  - Layer Height: 0.06 mm
- Walls
- Top/Bottom
- Infill
  - Infill Density: 10.0 %
  - Infill Pattern: Triangles
- Material
- Speed
  - Print Speed: 50.0 mm/s
- Travel
- Cooling
- Support

Generate Support

< Recommended

Slice



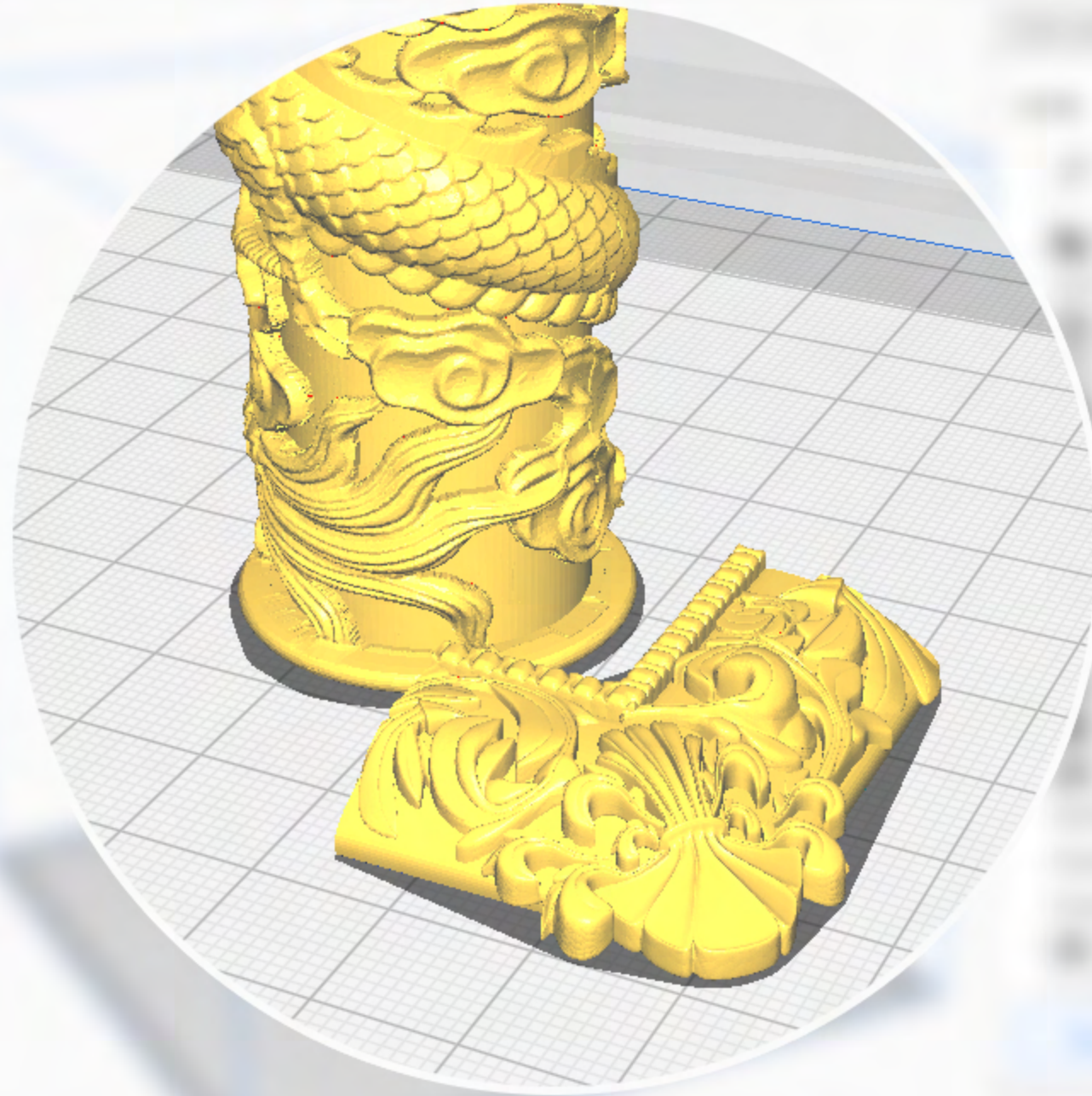
After slicing, the material usage and *estimated* printing time is calculated at the bottom right.

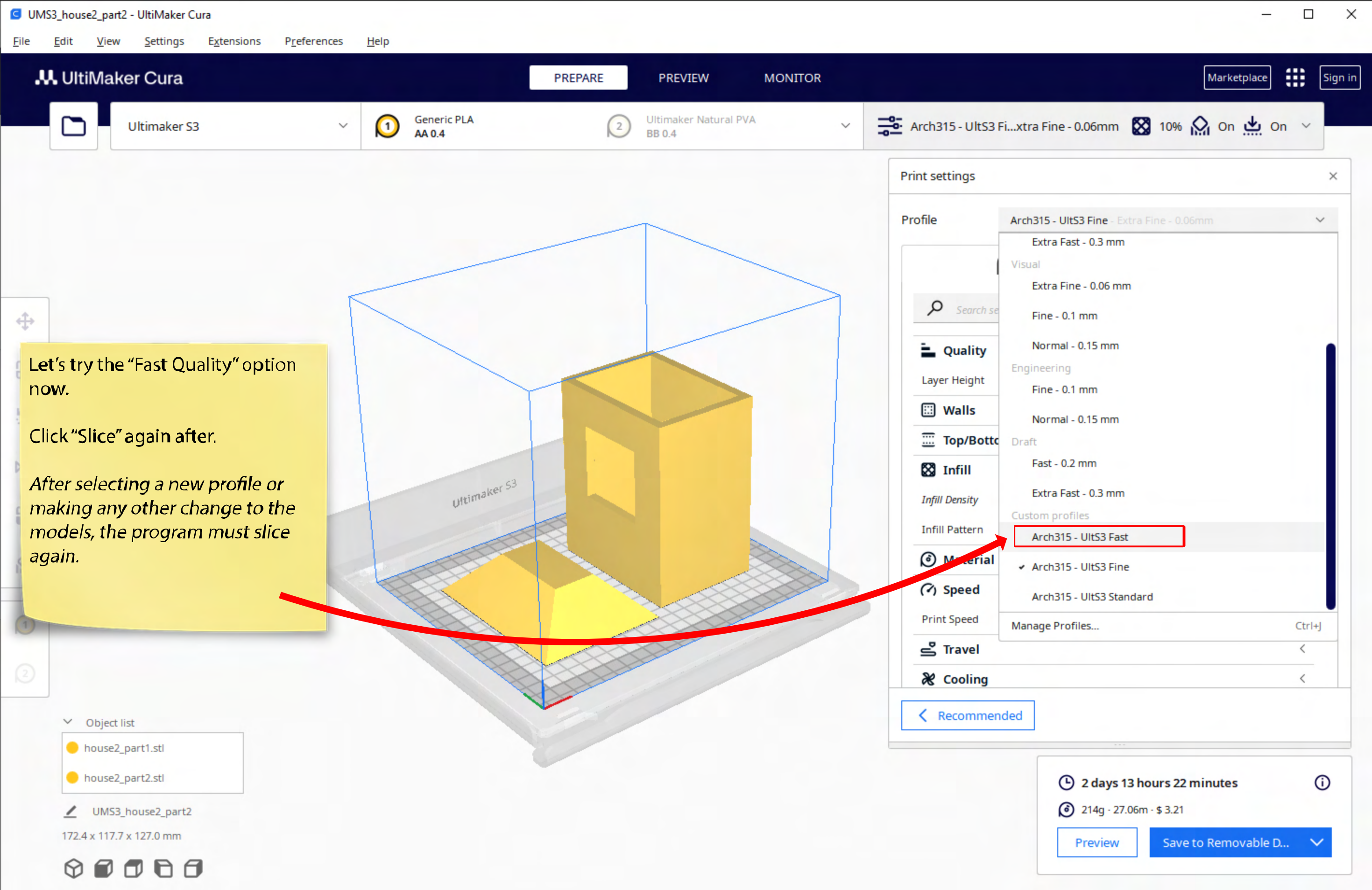
At an estimated 60+ hours, the "Fine Quality" profile is excessive for the simplicity of this design.

🕒 2 days 13 hours 22 minutes  
📊 214g · 27.06m · \$ 3.21

"Fine Quality" works best for files that have very fine surface detail and textures, such as filigree"

*Not all details may retain their structural integrity when printed in miniature and printed thin (ie. handrails, doorknobs, stairs are common culprits),*





Let's try the "Fast Quality" option now.

Click "Slice" again after.

After selecting a new profile or making any other change to the models, the program must slice again.

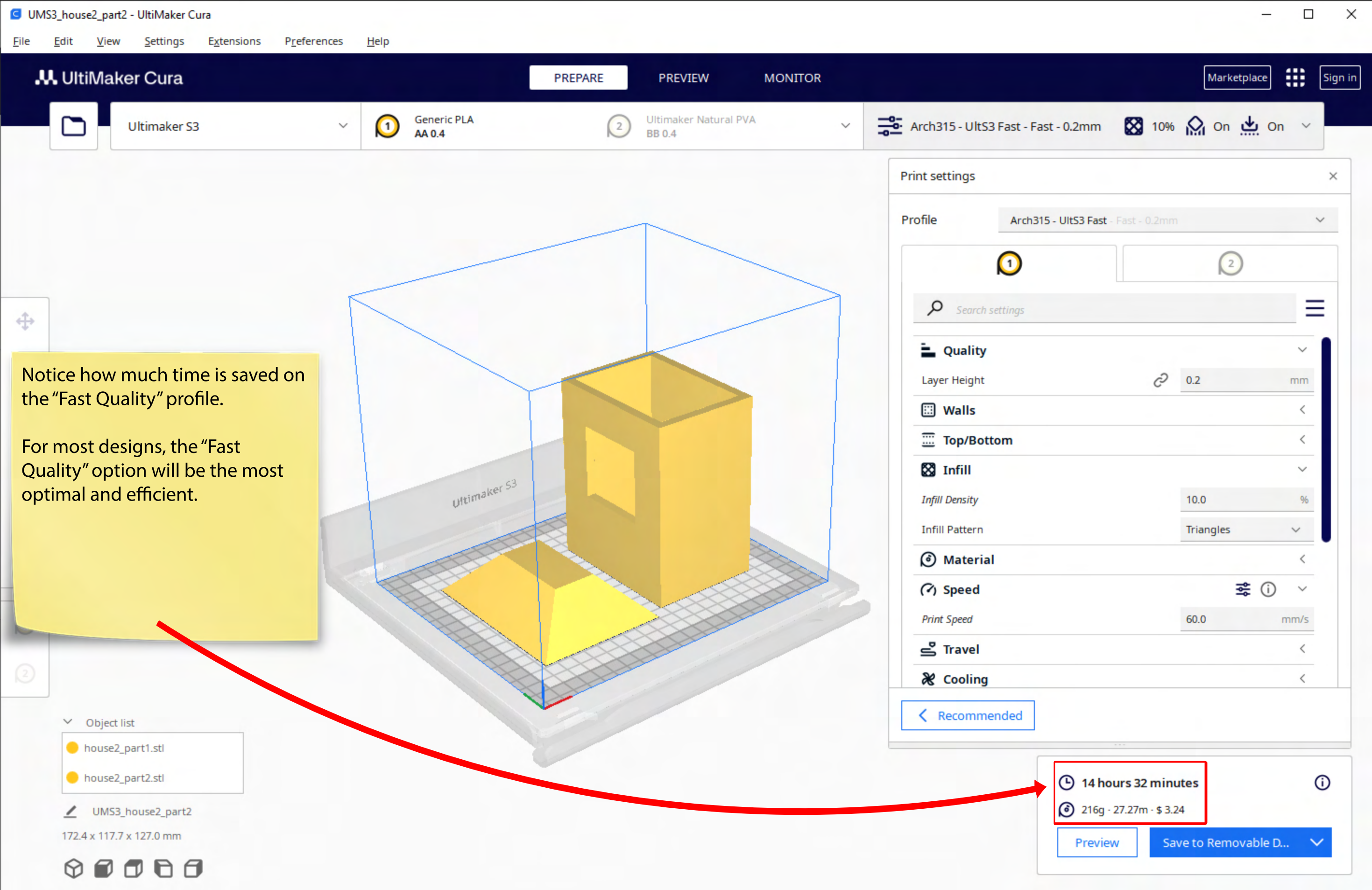
2 days 13 hours 22 minutes

214g · 27.06m · \$ 3.21

Preview

Save to Removable D...

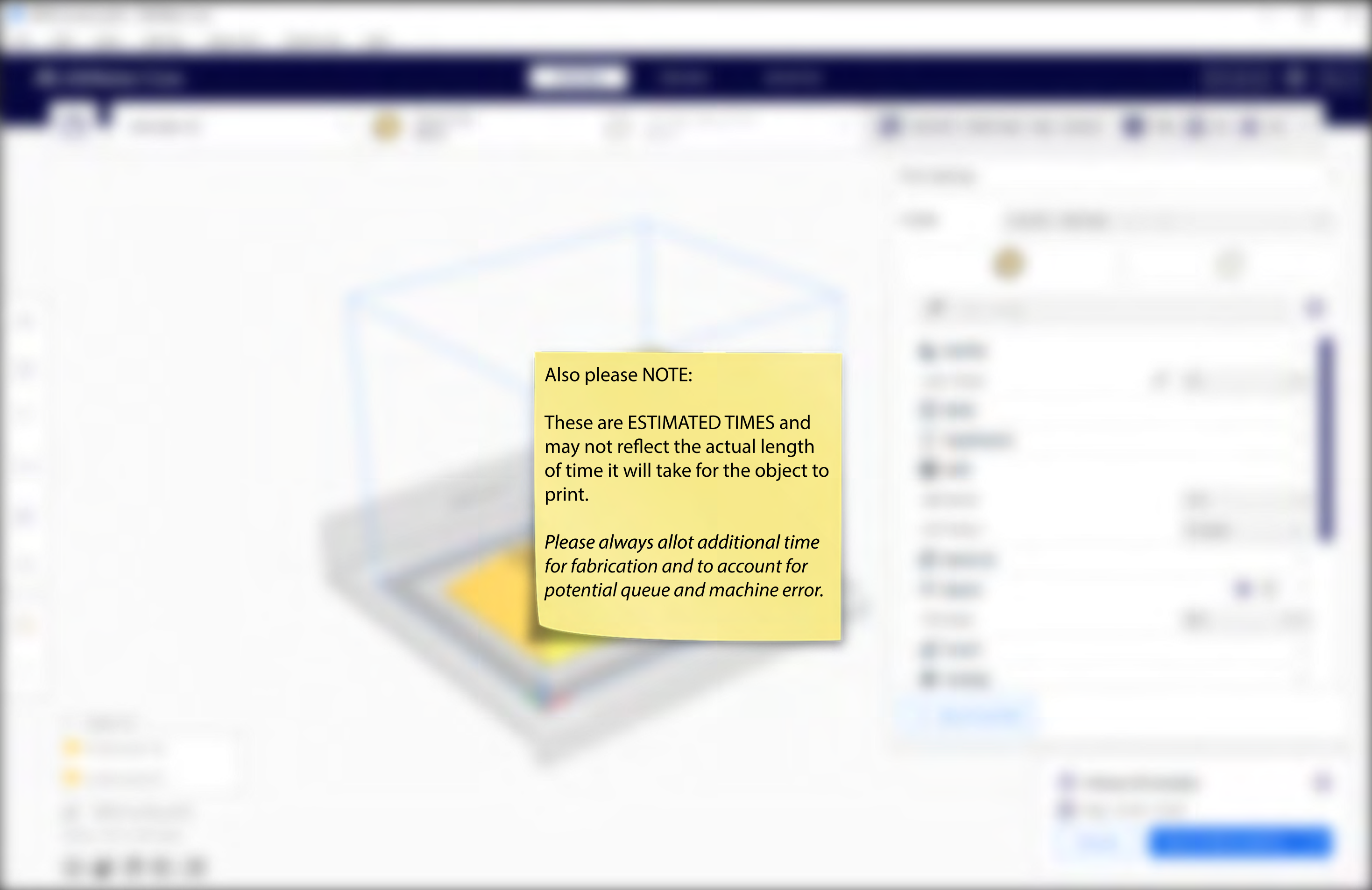




Notice how much time is saved on the "Fast Quality" profile.

For most designs, the "Fast Quality" option will be the most optimal and efficient.

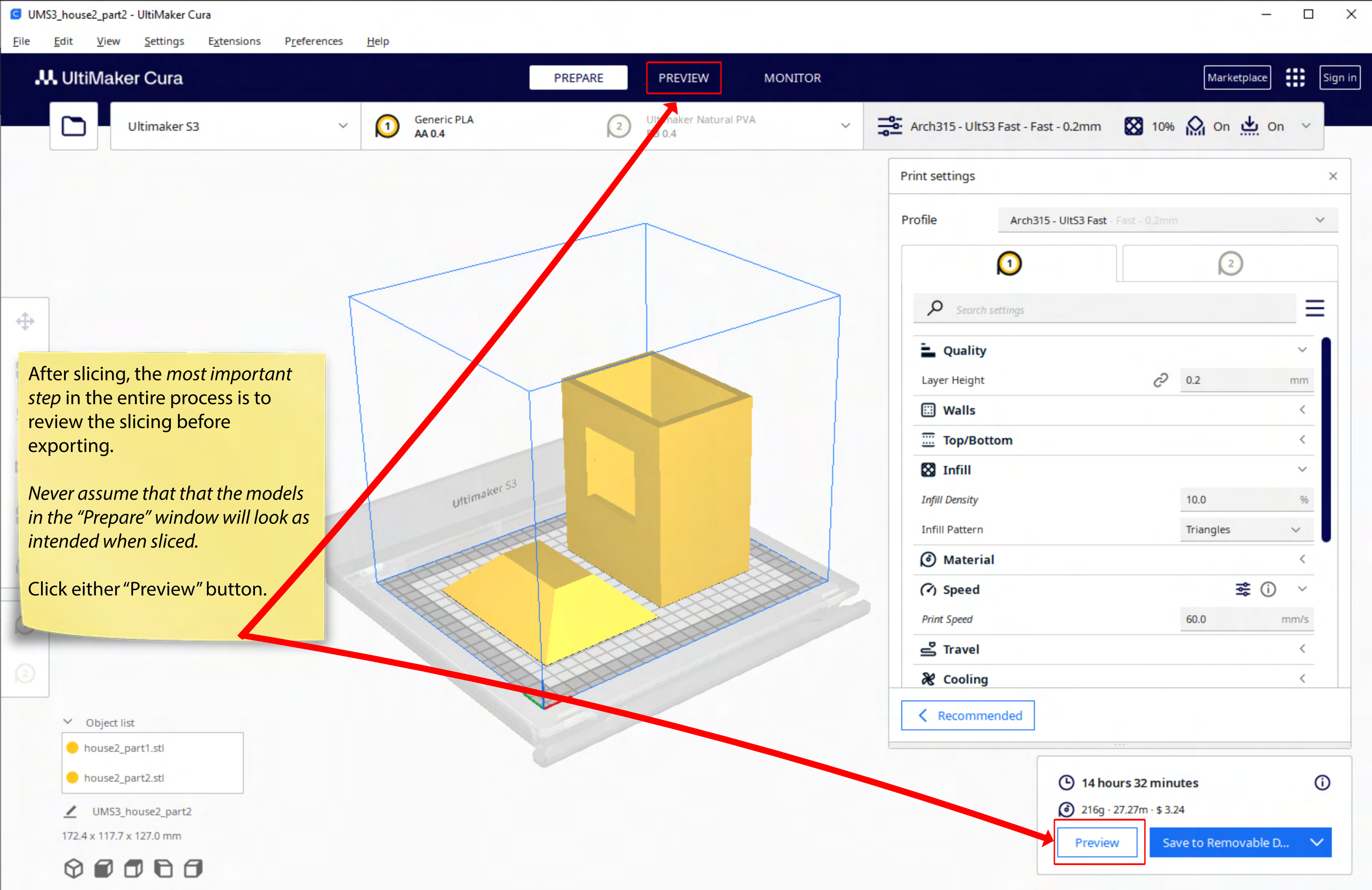
🕒 14 hours 32 minutes  
📊 216g · 27.27m · \$ 3.24



Also please NOTE:

These are ESTIMATED TIMES and may not reflect the actual length of time it will take for the object to print.

*Please always allot additional time for fabrication and to account for potential queue and machine error.*



After slicing, the *most important step* in the entire process is to review the slicing before exporting.

*Never assume that that the models in the "Prepare" window will look as intended when sliced.*

Click either "Preview" button.

PREVIEW

🕒 14 hours 32 minutes ⓘ

⚖️ 216g · 27.27m · \$ 3.24

[Preview](#) [Save to Removable D...](#) ▾

- Object list
- house2\_part1.stl
  - house2\_part2.stl
- UMS3\_house2\_part2
- 172.4 x 117.7 x 127.0 mm
- 📦 📦 📦 📦 📦

Print settings

Profile Arch315 - UltS3 Fast - Fast - 0.2mm ▾

1 2

🔍 Search settings ☰

**Quality** ▾

Layer Height 0.2 mm

**Walls** <

**Top/Bottom** <

**Infill** ▾

Infill Density 10.0 %

Infill Pattern Triangles ▾

**Material** <

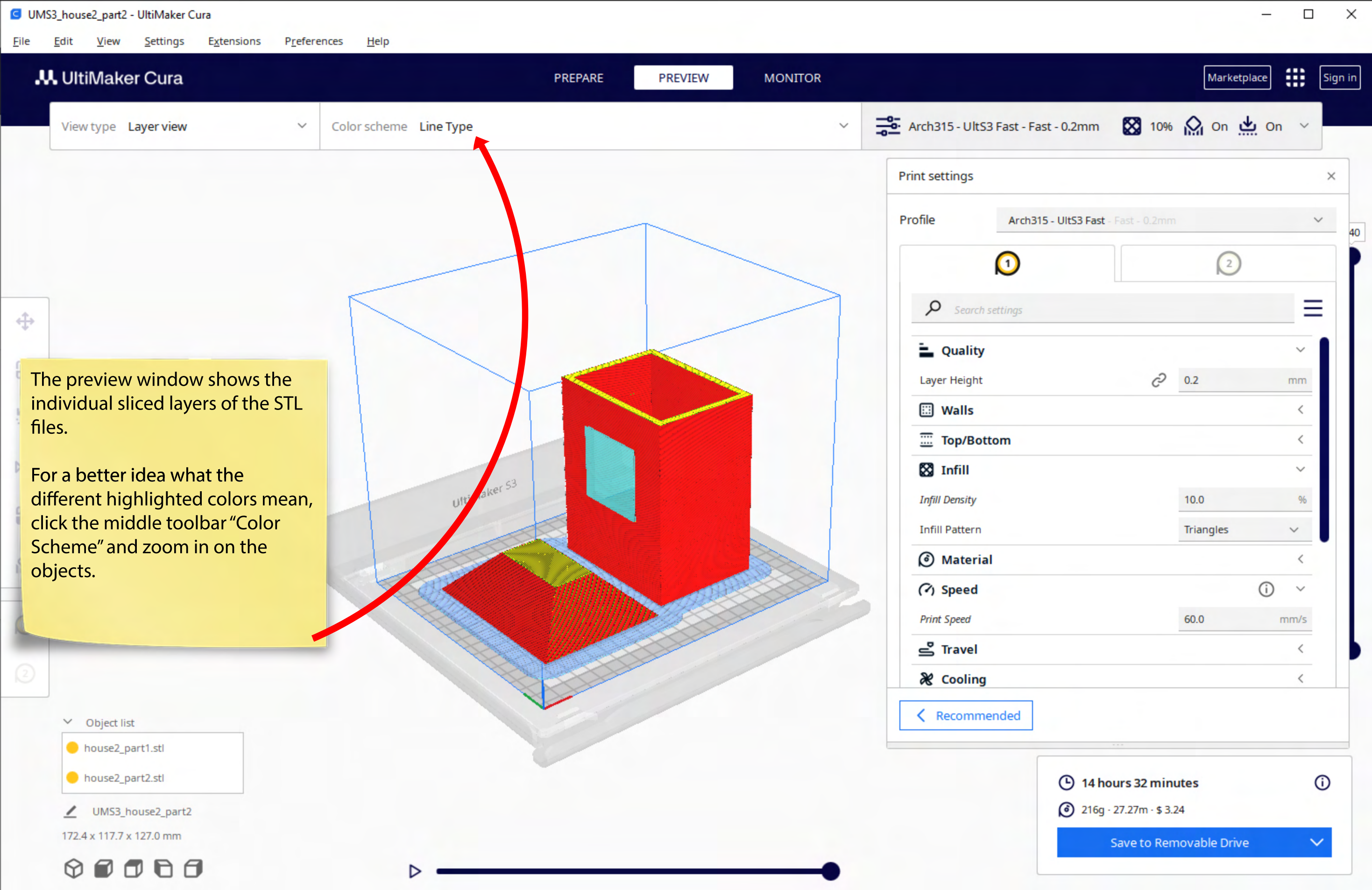
**Speed** ⚙️ ⓘ ▾

Print Speed 60.0 mm/s

**Travel** <

**Cooling** <

< Recommended



The preview window shows the individual sliced layers of the STL files.

For a better idea what the different highlighted colors mean, click the middle toolbar "Color Scheme" and zoom in on the objects.

### Print settings

Profile: Arch315 - UltS3 Fast - Fast - 0.2mm

1 2

Search settings

- Quality**
  - Layer Height: 0.2 mm
- Walls**
- Top/Bottom**
- Infill**
  - Infill Density: 10.0 %
  - Infill Pattern: Triangles
- Material**
- Speed**
  - Print Speed: 60.0 mm/s
- Travel**
- Cooling**

< Recommended

🕒 14 hours 32 minutes ⓘ

⚖️ 216g · 27.27m · \$ 3.24

Save to Removable Drive ▾

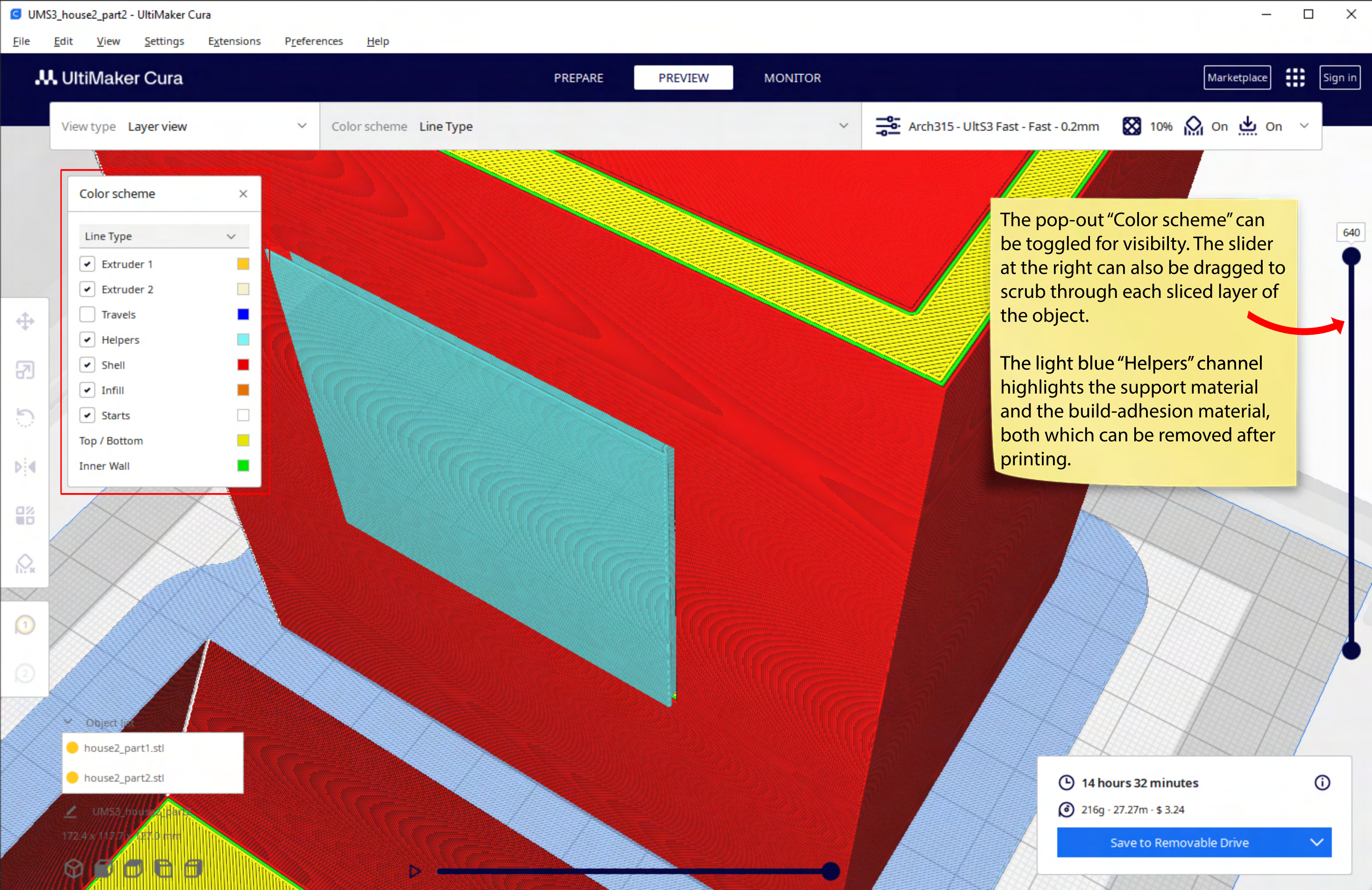
Object list

- house2\_part1.stl
- house2\_part2.stl

UMS3\_house2\_part2

172.4 x 117.7 x 127.0 mm

📦 📦 📦 📦 📦



Color scheme

Line Type

- Extruder 1
- Extruder 2
- Travels
- Helpers
- Shell
- Infill
- Starts
- Top / Bottom
- Inner Wall

The pop-out "Color scheme" can be toggled for visibility. The slider at the right can also be dragged to scrub through each sliced layer of the object.

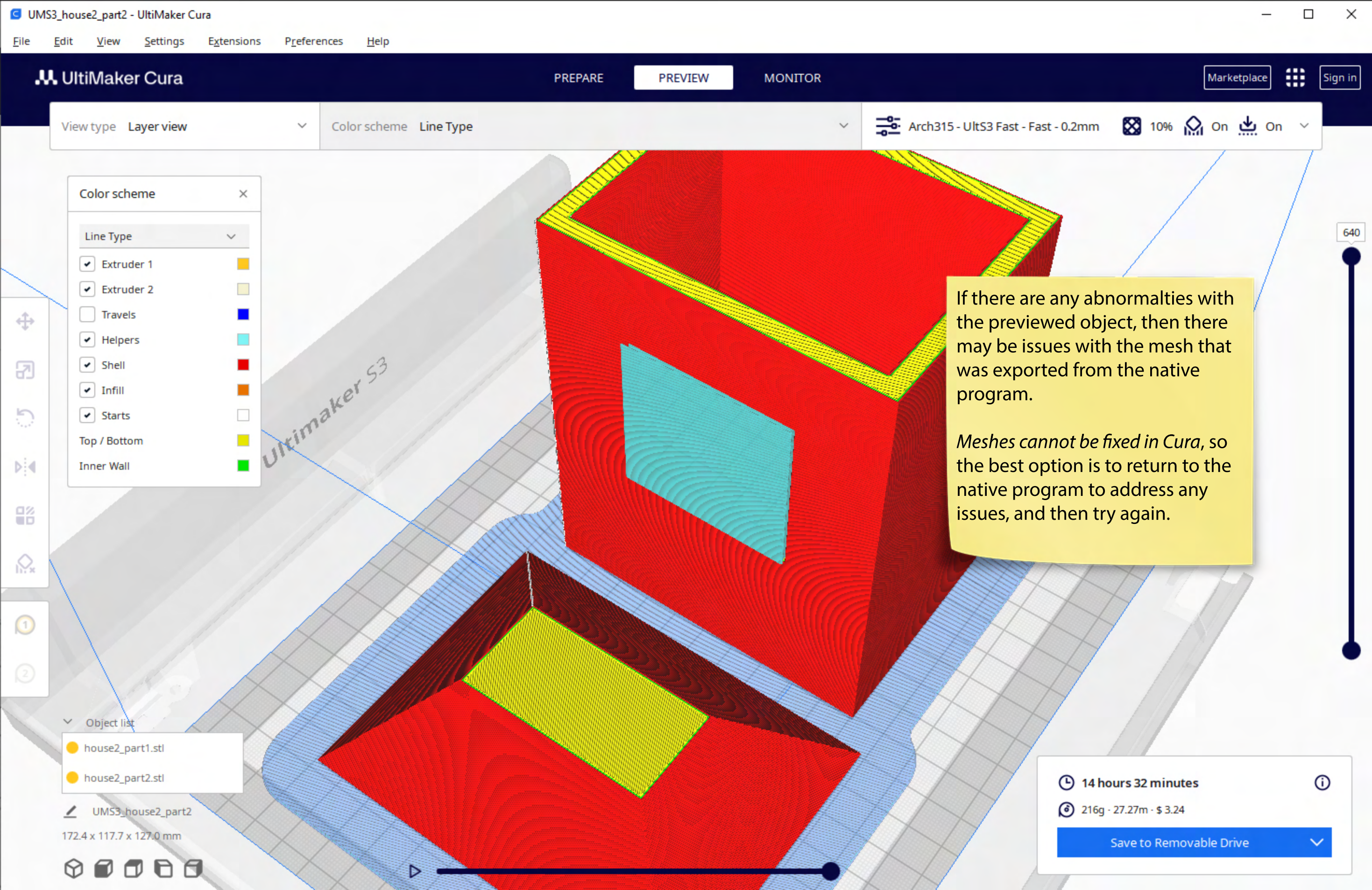
The light blue "Helpers" channel highlights the support material and the build-adhesion material, both which can be removed after printing.

🕒 14 hours 32 minutes

📦 216g · 27.27m · \$ 3.24

Save to Removable Drive

- Object list
- house2\_part1.stl
  - house2\_part2.stl



View type Layer view

Color scheme Line Type

Arch315 - UltS3 Fast - Fast - 0.2mm 10% On On

Color scheme

Line Type

- Extruder 1
- Extruder 2
- Travels
- Helpers
- Shell
- Infill
- Starts
- Top / Bottom
- Inner Wall

- Object list
- house2\_part1.stl
  - house2\_part2.stl

UMS3\_house2\_part2  
172.4 x 117.7 x 127.0 mm

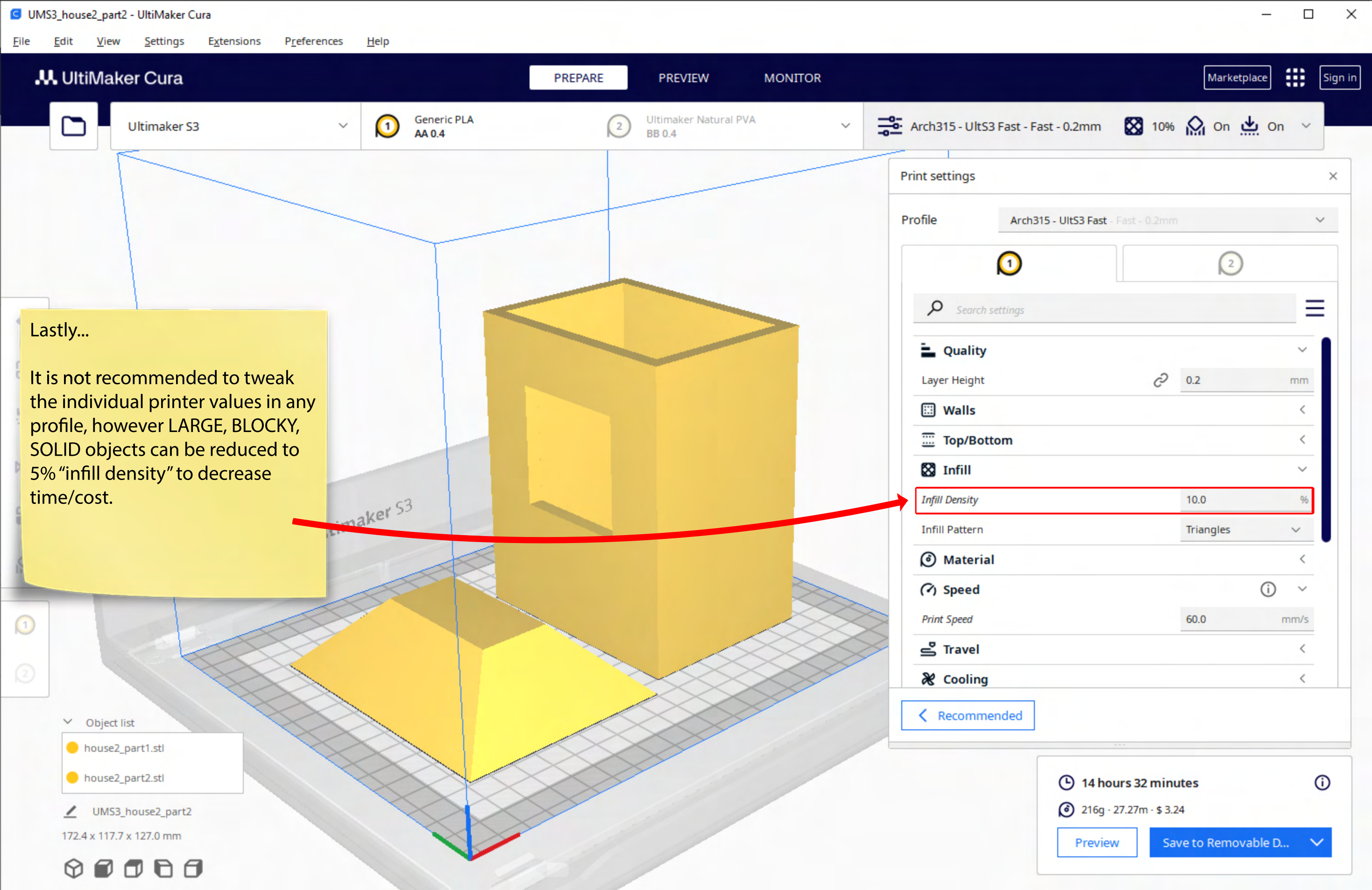
If there are any abnormalities with the previewed object, then there may be issues with the mesh that was exported from the native program.

*Meshes cannot be fixed in Cura, so the best option is to return to the native program to address any issues, and then try again.*

14 hours 32 minutes

216g · 27.27m · \$ 3.24

Save to Removable Drive



Ultimaker S3 Generic PLA AA 0.4 Ultimaker Natural PVA BB 0.4 Arch315 - UltS3 Fast - Fast - 0.2mm 10% On On

Lastly...  
It is not recommended to tweak the individual printer values in any profile, however LARGE, BLOCKY, SOLID objects can be reduced to 5% "infill density" to decrease time/cost.

Print settings

Profile Arch315 - UltS3 Fast - Fast - 0.2mm

1 2

Search settings

Quality

Layer Height 0.2 mm

Walls

Top/Bottom

Infill

Infill Density 10.0 %

Infill Pattern Triangles

Material

Speed 60.0 mm/s

Travel

Cooling

Recommended

- Object list
- house2\_part1.stl
  - house2\_part2.stl

UMS3\_house2\_part2  
172.4 x 117.7 x 127.0 mm

14 hours 32 minutes

216g · 27.27m · \$ 3.24

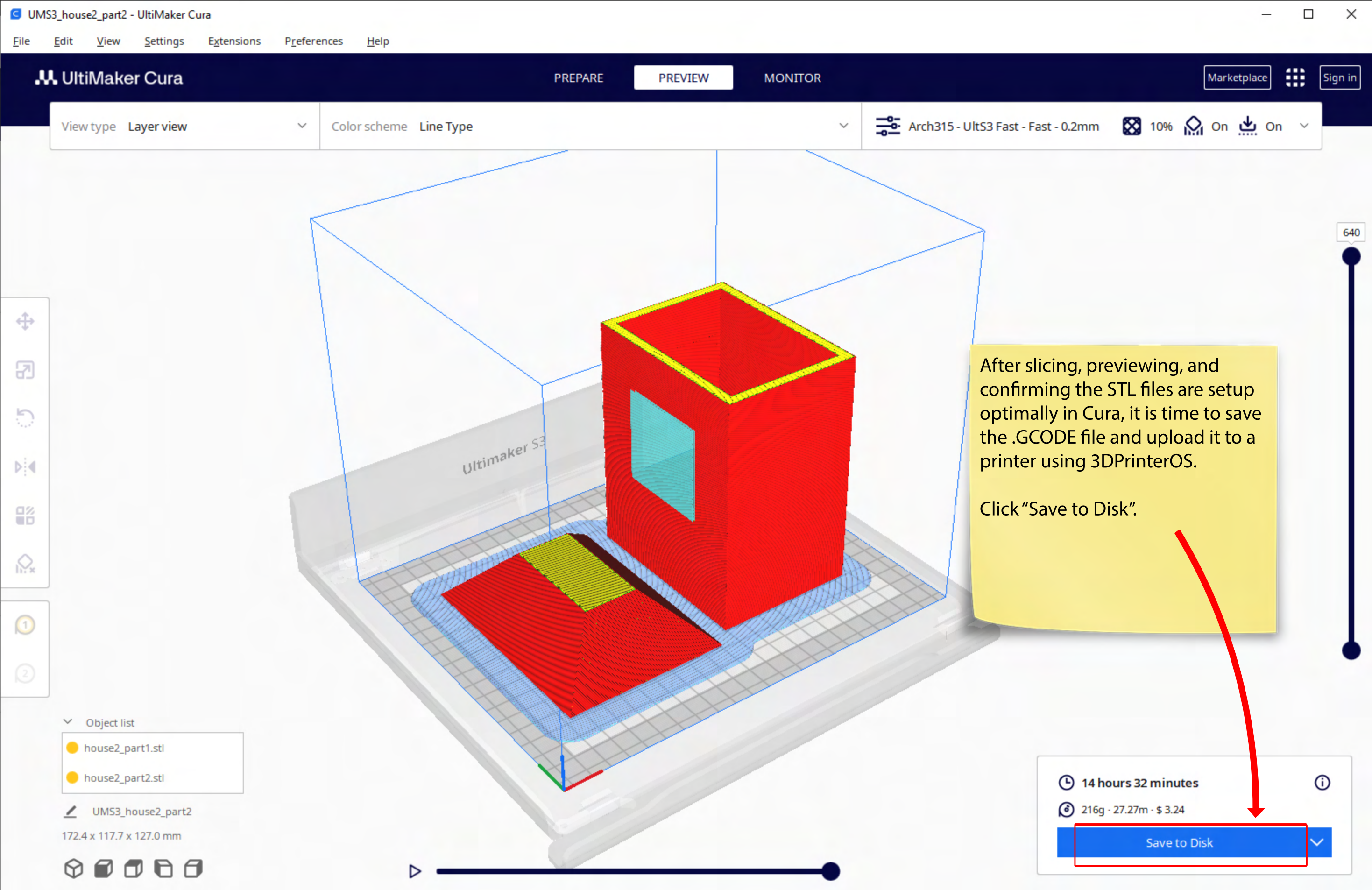
Preview Save to Removable D...



# Chapter 4

Submitting a Sliced File to 3DPrinterOS





After slicing, previewing, and confirming the STL files are setup optimally in Cura, it is time to save the .GCODE file and upload it to a printer using 3DPrinterOS.

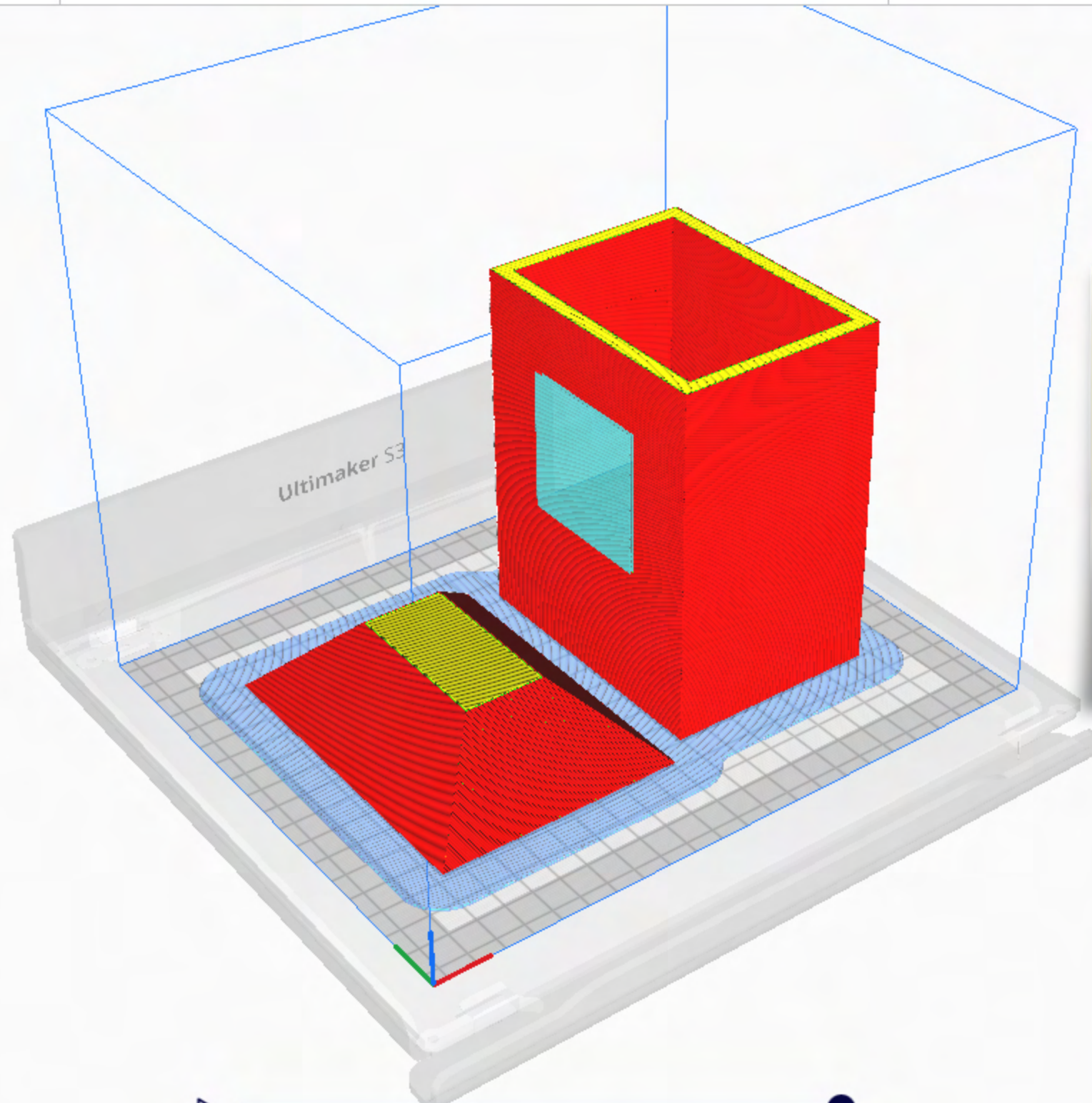
Click "Save to Disk".

🕒 14 hours 32 minutes

📦 216g · 27.27m · \$ 3.24

Save to Disk

View type Layer view Color scheme Line Type Arch315 - UltS3 Fast - Fast - 0.2mm 10% On On



If "Save to Disk" is not there, click the drop-down arrow to swap to it, then click "Save to Disk" again.

Navigation icons: pan, zoom, rotate, etc.

- Object list
- house2\_part1.stl
- house2\_part2.stl

UMS3\_house2\_part2  
172.4 x 117.7 x 127.0 mm

View mode icons: isometric, top, bottom, front, back

14 hours 32 minutes

216 Save to Removable Drive ARCH\_10 (E:)

Save to Disk



View type Layer view

Color scheme Line Type

Arch315 - UltS3 Fast - Fast - 0.2mm

10%

On

On

On

Save to Disk

This PC > Downloads > example

Search example

Organize New folder

Quick access

- Desktop
- Downloads
- Documents
- Pictures

Creative Cloud Fil

OneDrive

This PC

3D Objects

Desktop

Documents

Downloads

Music

Pictures

Videos

Windows (C:)

ARCH\_10 (E:)

Shared (birch) (I:

ARCH\_10 (E:)

Name

Date modified

Type

Size

No items match your search.

The "Save to Disk" window will pop-up.

Note: This process is the same for Mac users but may look slightly different.

File name: UMS3\_house2\_part2.ufp

Save as type: UltiMaker Format Package (\*.ufp)

Hide Folders

Save

Cancel

UMS3\_house2\_part2

172.4 x 117.7 x 127.0 mm



216g · 27.27m · \$ 3.24

Save to Disk



640

View type Layer view

Color scheme Line Type

Arch315 - UltS3 Fast - Fast - 0.2mm

10%

On

On

▼

Save to Disk

✕

This PC > Downloads > example

Search example

Organize New folder

Quick access

- Desktop
- Downloads
- Documents
- Pictures

Creative Cloud Fil

OneDrive

This PC

- 3D Objects
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Videos

Windows (C:)

ARCH\_10 (E:)

Shared (birch) (I:

ARCH\_10 (E:)

Name

Date modified

Type

Size

No items match your search.

Change the filetype from ".ufp" to ".gcode" under the "Save as type" drop-down.

File name: UMS3\_house2\_part2.ufp

Save as type: UltiMaker Format Package (\*.ufp)

3MF file (\*.3mf)

G-code File (\*.gcode)

STL File (ASCII) (\*.stl)

STL File (Binary) (\*.stl)

UltiMaker Format Package (\*.ufp)

Wavefront OBJ File (\*.obj)

Hide Folders

Object list

house2\_p

house2\_p

UMS3\_house2\_part2

172.4 x 117.7 x 127.0 mm



Save to Disk



640

View type Layer view

Color scheme Line Type

Arch315 - UltS3 Fast - Fast - 0.2mm

10%

On

On

On

Save to Disk

This PC > Downloads > example

Search example

Organize New folder

- Quick access
- Desktop
- Downloads
- Documents
- Pictures
- Creative Cloud Fil
- OneDrive
- This PC
- 3D Objects
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Videos
- Windows (C:)
- ARCH\_10 (E:)
- Shared (birch) (I:

Name	Date modified	Type	Size
No items match your search.			

Click "Save" to save the .gcode file to the PC.

File name: UMS3\_house2\_part2.gcode

Save as type: G-code File (\*.gcode)

Save

Cancel

216g · 27.27m · \$ 3.24

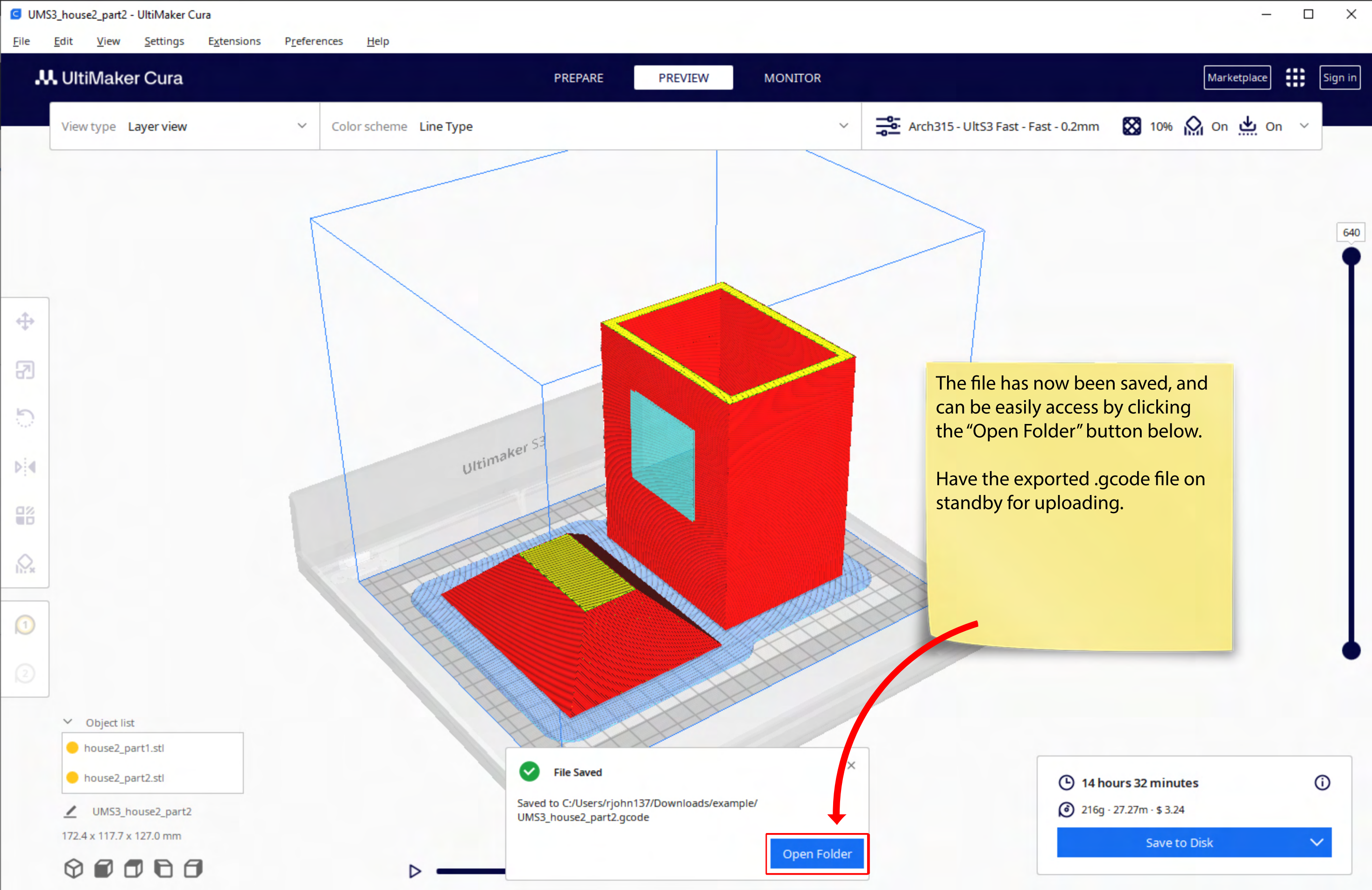
Save to Disk

UMS3\_house2\_part2

172.4 x 117.7 x 127.0 mm



640



The file has now been saved, and can be easily access by clicking the "Open Folder" button below.

Have the exported .gcode file on standby for uploading.

File Saved

Saved to C:/Users/rjohn137/Downloads/example/  
UMS3\_house2\_part2.gcode

Open Folder

14 hours 32 minutes

216g · 27.27m · \$ 3.24

Save to Disk

Sliced files are uploaded to the machines through 3DPrinterOS.

Go to [www.3dprinteros.com](http://www.3dprinteros.com).

Favorite or bookmark this page.

Click the "My Account" button at the top right.

Try Out 3DPrinterOS for 14 Days and Elevate your 3D Printing Experience [Discover](#) →


**3DPrinterOS** Features ▾ Success Stories Resources ▾ 3D Printer Compatibility [Talk to an expert](#) [Contact](#) [My Account](#)

# 3D Printer Cloud Management Software

An easy to use cloud-based 3D printing management platform for managing files, machines, and users across your business.

Want to Save Now and Scale Instantly?

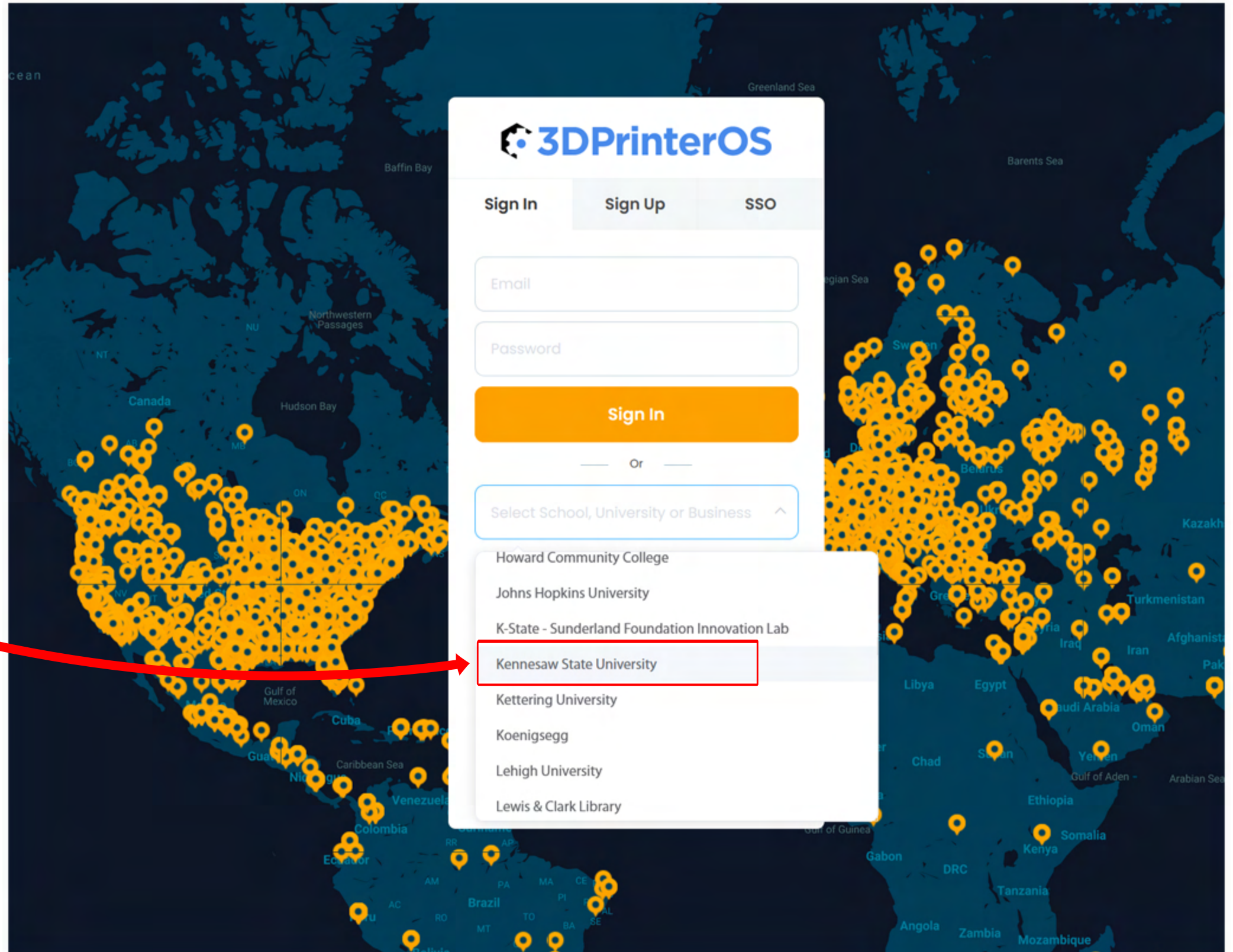
[Talk to an expert](#) ↗



For Industrial

From the School drop-down,  
select "Kennesaw State University".

You will be taken to the KSU  
Organization log-in page. Login  
with your usual KSU credentials.



The image shows the 3DPrinterOS login interface. At the top, the logo "3DPrinterOS" is displayed. Below it are three tabs: "Sign In", "Sign Up", and "SSO". The "Sign In" tab is active. There are two input fields for "Email" and "Password". Below these is a prominent orange "Sign In" button. Underneath the button is the text "Or" flanked by horizontal lines. Below that is a dropdown menu labeled "Select School, University or Business" with an upward-pointing arrow. The dropdown menu is open, showing a list of institutions: Howard Community College, Johns Hopkins University, K-State - Sunderland Foundation Innovation Lab, Kennesaw State University (highlighted with a red border), Kettering University, Koenigsegg, Lehigh University, and Lewis & Clark Library. The background of the page is a dark blue world map with numerous yellow location pins.



After logging in, "Files" will open. All files that you upload for printing will store on this page.

*By default, the files library will include pre-uploaded example models of rubber ducks, which can be deleted.*

The screenshot shows the 3DPrinterOS interface. At the top, there is a navigation bar with the 3DPrinterOS logo and links for Files, Activity, Printers, Profiles, Download, and Support. A user profile icon is visible in the top right corner, labeled "Education". Below the navigation bar, there are tabs for "Files" and "Projects", with "Files" being the active tab. A search bar is located to the right of the tabs, followed by an "Add files" button and a menu icon. The main content area displays a list of files in a table format. Each row represents a file with the following columns: a file icon, a blurred title, a cost value, a time value, a size value, a date value, and a set of action buttons (Preview, Print, and a menu icon). The files listed include several rubber duck models. A "Chat" button is visible in the bottom right corner of the interface.

File Icon	Title	Cost	Time	Size	Date	Actions
	[blurred]	\$0.20	01:10h	1.3 MB	recently	Preview, Print, Menu
	[blurred]	\$2.16	13:10h	19.4 MB	2d ago	Preview, Print, Menu
	[blurred]	\$2.09	13:07h	21.7 MB	3d ago	Preview, Print, Menu
	[blurred]	\$1.19	06:42h	11.9 MB	4d ago	Preview, Print, Menu
	[blurred]	\$11.90	66:07h	34.7 MB	10d ago	Preview, Print, Menu
	[blurred]	\$17.22	102:47h	93.5 MB	11d ago	Preview, Print, Menu
	[blurred]	\$0.56	15:35h	31.8 MB	12d ago	Preview, Print, Menu
	[blurred]	\$0.69	06:05h	7.1 MB	15d ago	Preview, Print, Menu
	[blurred]	\$0.68	04:08h	6.9 MB	21d ago	Preview, Print, Menu

For easier access in the future, the password can be changed by clicking on your email at the top right to open up a drop-down menu, then clicking "Profile settings".

You will find a "Change password" link on the new page.

The screenshot shows the 3DPrinterOS interface. At the top, there is a navigation bar with the 3DPrinterOS logo and links for Files, Activity, Printers, Profiles, Download, and Support. On the right side, there is a user profile dropdown menu. The menu is open, showing the user's name 'Education', their affiliation 'Kennesaw State University', and their storage and bandwidth availability: 'Storage available: 100 GB' and 'Bandwidth available: 100 GB'. Below this, there are several menu items: 'Organization admin', 'Release notes', 'My profile', 'Profile settings' (which is highlighted with a red box), and 'Sign out'. A red arrow points from the 'Profile settings' link in the dropdown menu to a yellow sticky note on the left side of the image. The main content area shows a list of files with columns for file icon, name, price, time, size, and date. Each file entry has a 'Preview' button and a 'Print' button. At the bottom right, there is a 'Chat' button.

File Icon	File Name	Price	Time	Size	Date	Buttons
[Icon]	[Name]	\$0.20	01:10h	1.3 MB	recently	Preview
[Icon]	[Name]	\$2.16	13:10h	19.4 MB	2d ago	Preview
[Icon]	[Name]	\$2.09	13:07h	21.7 MB	3d ago	Preview
[Icon]	[Name]	\$1.19	06:42h	11.9 MB	4d ago	Preview
[Icon]	[Name]	\$11.90	66:07h	34.7 MB	10d ago	Preview Print
[Icon]	[Name]	\$17.22	102:47h	93.5 MB	11d ago	Preview Print
[Icon]	[Name]	\$0.56	15:35h	31.8 MB	12d ago	Preview Print
[Icon]	[Name]	\$0.69	06:05h	7.1 MB	15d ago	Preview Print
[Icon]	[Name]	\$0.68	04:08h	6.9 MB	21d ago	Preview Print

3DPrinterOS Files Activity Printers Profiles Download Support Education

Files Projects Search Add files

		\$0.20	01:10h	1.3 MB	recently	Preview	Print	⋮
		\$2.16	13:10h	19.4 MB	2d ago	Preview	Print	⋮
		\$2.09	13:07h	21.7 MB	3d ago	Preview	Print	⋮
		\$1.19	06:42h	11.9 MB	4d ago	Preview	Print	⋮
		\$11.90	66:07h	34.7 MB	10d ago	Preview	Print	⋮
		\$17.22	102:47h	93.5 MB	11d ago	Preview	Print	⋮
		\$0.56	15:35h	31.8 MB	12d ago	Preview	Print	⋮
		\$0.69	06:05h	7.1 MB	15d ago	Preview	Print	⋮
	gcode	\$0.68	04:08h	6.9 MB	21d ago	Preview	Print	⋮

Chat

To upload .gcode file(s) that you sliced in Cura, click the "Add files" button.

3DPrinterOS Files Activity Printers Profiles Download Support

Education

Files Projects Search Add files

0.20	01:10h	1.3 MB	8m ago	Preview	Print	✕
2.16	13:10h	19.4 MB	2d ago	Preview	Print	⋮
2.09	13:07h			Preview	Print	⋮
1.19	06:42h	11.9 MB	4d ago	Preview	Print	⋮
\$11.90	66:07h	34.7 MB	10d ago	Preview	Print	⋮
\$17.22	102:47h	93.5 MB	11d ago	Preview	Print	⋮
0.56	15:35h	31.8 MB	12d ago	Preview	Print	⋮
0.69	06:06h	7.1 MB	15d ago	Preview	Print	⋮
\$0.68	04:08h	6.9 MB	21d ago	Preview	Print	⋮

Drag and drop to upload content!

Or

select from computer

Chat

Drag-and-drop the .gcode into the box, or click "select from computer".

Multiple files can be uploaded at once.

After adding the .gcode, "Select Printer type" will appear before you can save.

The screenshot shows the 3DPrinterOS interface. At the top, there is a navigation bar with the 3DPrinterOS logo and menu items: Files, Activity, Printers, Profiles, Download, and Support. On the right side of the navigation bar, there is a user profile icon and the text 'Education'. Below the navigation bar, there are tabs for 'Files' and 'Projects'. A search bar is located to the right of the tabs, followed by an 'Add files' button and a filter icon. The main content area displays a list of files. The first file is 'UMS3\_house2\_part2' with a '100' icon. To the right of this file name is a 'Select Printer type' dropdown menu, which is currently set to 'Ultimaker S3' and is highlighted with a red box. A red arrow points from the text box on the left to this dropdown menu. Below the dropdown menu is a 'Save' button. The file list contains several rows, each with a file icon, a name, a price, a duration, a file size, and a timestamp. Each row also has 'Preview' and 'Print' buttons, along with a three-dot menu icon. At the bottom right corner, there is a 'Chat' button.

File Name	Price	Duration	File Size	Timestamp	Actions
UMS3_house2_part2					Select Printer type: Ultimaker S3, Save, Preview, Print, ...
[Blurred]	\$0.20	01:10h	1.3 MB	10m ago	Preview, Print, ...
[Blurred]	\$2.16	13:10h	19.4 MB	2d ago	Preview, Print, ...
[Blurred]	\$2.09	13:07h	11.7 MB	3d ago	Preview, Print, ...
[Blurred]	\$1.19	06:42h	11.9 MB	4d ago	Preview, Print, ...
[Blurred]	\$11.90	66:07h	34.7 MB	10d ago	Preview, Print, ...
[Blurred]	\$17.22	102:47h	93.5 MB	11d ago	Preview, Print, ...
[Blurred]	\$0.56	15:35h	31.8 MB	12d ago	Preview, Print, ...
[Blurred]	\$0.69	06:05h	7.1 MB	15d ago	Preview, Print, ...

Click the drop-down arrow and select either "Ultimaker S3" or "Ultimaker S5" under "My Printers", according to the printer you sliced for in Cura.

*If the incorrect printer type is selected, than your object will not print successfully.*

The screenshot shows the 3DPrinterOS interface. At the top, there are navigation tabs: Files (selected), Activity, Printers, Profiles, Download, and Support. A user profile dropdown is visible in the top right corner, showing "Education". Below the navigation, there are tabs for "Files" and "Projects", a search bar, and an "Add files" button. The main content area displays a file named "UMS3\_house2\_part2" with a progress indicator of 100%. To the right of the file name, there is a "Select Printer type" dropdown menu currently set to "Ultimaker S3" and a "Save" button. The dropdown menu is open, showing a list of printer options categorized into "Favorite Printers", "My Printers", and "All Printers".

Printer Type	Price	Time	File Size	Age
Ultimaker S3	\$0.20	01:10h	1.3 MB	12m ago
Ultimaker S5	\$2.16	13:10h	19.4 MB	2d ago
Creality Ender-3	\$2.09	13:07h	21.7 MB	3d ago
Creality CR-10(S)	\$1.19	06:42h	11.9 MB	4d ago
Industrial Generic	\$11.90	66:07h	34.7 MB	10d ago
Ultimaker S3	\$17.22	102:47h	93.5 MB	11d ago
Ultimaker S5	\$0.56	15:35h	31.8 MB	12d ago
3D Dexter Dexbot - Experimental	\$0.69	06:05h	7.1 MB	15d ago

**- Favorite Printers**

- Ultimaker S3
- Ultimaker S5
- Creality Ender-3
- Creality CR-10(S)

**- My Printers**

- Creality CR-10(S)
- Creality Ender-3
- Industrial Generic
- Ultimaker S3
- Ultimaker S5

**- All Printers**

- 3D Dexter Dexbot - Experimental
- 3DPrinter Prime 1
- AE3D Impressora Wide
- Airwolf AXIOM
- Airwolf HD2x - Experimental
- Airwolf3D XL - Experimental
- Anet A8 Desktop Prusa i3 - Experimental

Files

Projects

Search

Add files



100 UMS3\_house2\_part2

Select Printer type

Ultimaker S3

Save

Once the proper machine is selected, click "Save".



[Blurred file name]

\$0.20

01:10h

1.3 MB

10m ago

Preview

Print



[Blurred file name]

\$2.16

13:10h

19.4 MB

2d ago

Preview

Print



[Blurred file name]

\$2.09

13:07h

21.7 MB

3d ago

Preview

Print



[Blurred file name]

\$1.19

06:42h

11.9 MB

4d ago

Preview

Print



[Blurred file name]

\$11.90

66:07h

34.7 MB

10d ago

Preview

Print



[Blurred file name]

\$17.22

102:47h

93.5 MB

11d ago

Preview

Print



[Blurred file name]

\$0.56

15:35h

31.8 MB

12d ago

Preview

Print



[Blurred file name]

\$0.69

06:05h

7.1 MB

15d ago

Preview



















Print



Chat

3DPrinterOS Files Activity Printers Profiles Download Support Education

Files Projects Search Add files

		\$3.24	14:37h	4.6 MB	recently	Preview	Print	⋮
		\$0.20	01:10h	1.3 MB	16m ago	Preview	Print	⋮
		\$2.16	13:10h	19.4 MB	2d ago	Preview	Print	⋮
		\$2.09	08:07h	21.7 MB	3d ago	Preview	Print	⋮
		\$1.19	06:42h	11.9 MB	4d ago	Preview	Print	⋮
		\$11.90	66:07h	34.7 MB	10d ago	Preview	Print	⋮
		\$17.22	102:47h	93.5 MB	11d ago	Preview	Print	⋮
		\$0.56	15:35h	31.8 MB	12d ago	Preview	Print	⋮
		\$0.69	06:05h	7.1 MB	15d ago	Preview	Print	⋮

Once the object is fully uploaded, the "Preview" and "Print" options will appear.

*It is recommended to always "preview" your uploaded object first to double-check your file prior to printing.*

After confirming your file is correct, click "Print".



A list of printers in the printer farm will appear. Only printers compatible for the machine type you selected upon upload will appear.

When choosing a machine, take note of the filament color. Most machines print white, with a handful available in black.

The screenshot shows the 3DPrinterOS interface with a modal window titled "Ultimaker S3". The modal displays a list of printers and their associated filament colors. The printers listed are ARCH-13, ARCH-14, ARCH-15, ARCH-16, ARCH-17, ARCH-18, ARCH-19, and ARCH-20, all of which are Ultimaker S3 models. The filament colors are either white or black. A red box highlights the filament color selection area for two printers, with "white" and "black" labels next to them. The modal also includes a "Print to multiple printers" checkbox, a "Print" button for each printer, and a "Select Printer" button at the bottom right.

Printer Model	Filament Color	Print Button
ARCH-13	White	Print
ARCH-14	White	Print
ARCH-15	White	Print
ARCH-16	White	Print
ARCH-17	White	Print
ARCH-18	Black	Print
ARCH-19	Black	Print
ARCH-20	Black	Print

Select the printer of your choice by clicking the radio button at the right of the machine...

The screenshot displays the 3DPrinterOS interface. A modal window titled "Ultimaker S3" is open, showing a list of printer instances. At the top right of the modal, there is a checkbox labeled "Print to multiple printers" which is currently unchecked. Below this, a file named "UMS3\_house2\_part2.gcode" is listed with a price of \$3.24, a print time of 14:37h, and a weight of 216.29g - PLA. The main list contains several printer instances, each with a green checkmark icon, a name (e.g., ARCH-14), the model "Ultimaker S3", material and nozzle information (e.g., PLA - 0.4mm), a video camera icon, a quantity input field set to "1", and a radio button. The radio button for the "ARCH-14" instance is selected and highlighted with a red square. A red arrow originates from a yellow note on the left and points to this selected radio button. At the bottom of the modal, there is a text input field labeled "Add a note" and two buttons: "Queue" (green) and "Print" (orange). The background shows a sidebar with "Files" and "Projects" tabs and a list of printer icons.

Printer Name	Material	Nozzle	Quantity	Selection
ARCH-14 Ultimaker S3	PLA	0.4mm	1	<input checked="" type="radio"/>
ARCH-15 Ultimaker S3	PLA	0.4mm	1	<input type="radio"/>
ARCH-16 Ultimaker S3	PLA	0.4mm	1	<input type="radio"/>
ARCH-17 Ultimaker S3	PLA	0.4mm	1	<input type="radio"/>
ARCH-18 Ultimaker S3	PLA	0.4mm	1	<input type="radio"/>
ARCH-19 Ultimaker S3	PLA	0.4mm	1	<input type="radio"/>
ARCH-20 Ultimaker S3	PLA	0.4mm	1	<input type="radio"/>

...with your printer now selected, click "Queue".










*Note: The "Print" button will not appear for students.*


The screenshot shows the 3DPrinterOS interface. A modal window titled "Ultimaker S3" is open, displaying a list of files. The file "UMS3\_house2\_part2.gcode" is at the top, with a cost of \$3.24, a print time of 14:37h, and a weight of 216.29g - PLA. Below it, a list of files is shown, each with a green checkmark icon, a printer icon, and a "Queue" button. The file "ARCH-14" is selected, and its "Queue" button is highlighted with a blue dot. At the bottom of the modal, there is an "Add a note" field and two buttons: "Queue" (green) and "Print" (orange). A red arrow points from the "Queue" button in the modal to the "Queue" button in the bottom right of the modal. A yellow note on the left side of the image contains the text: "...with your printer now selected, click 'Queue'." and "Note: The 'Print' button will not appear for students."

File Name	Printer	Material	Queue	Print
UMS3_house2_part2.gcode	Ultimaker S3	PLA - 0.4mm	1	
ARCH-14	Ultimaker S3	PLA - 0.4mm	1	
ARCH-15	Ultimaker S3	PLA - 0.4mm	1	
ARCH-16	Ultimaker S3	PLA - 0.4mm	1	
ARCH-17	Ultimaker S3	PLA - 0.4mm	1	
ARCH-18	Ultimaker S3	PLA - 0.4mm	1	
ARCH-19	Ultimaker S3	PLA - 0.4mm	1	
ARCH-20	Ultimaker S3	PLA - 0.4mm	1	

3DPrinterOS [Files](#) [Activity](#) [Printers](#) [Profiles](#) [Download](#) [Support](#) Education

Files Projects Search Add files

 UMS3_house2_part2 gcode US3 1 print	\$3.24	14:37h	4.6 MB	8m ago	Preview	Print	⋮
	\$0.20	01:10h	1.3 MB	24m ago	Preview	Print	⋮
	\$2.16	13:10h	19.4 MB	2d ago	Preview	Print	⋮
	\$2.09	13:07h	21.7 MB	3d ago	Preview	Print	⋮
	\$1.19	06:42h	11.9 MB	4d ago	Preview	Print	⋮
	\$11.90	66:07h	34.7 MB	10d ago	Preview	Print	⋮
	\$17.22	102:47h	93.5 MB	11d ago	Preview	Print	⋮
	\$0.56	15:35h	31.8 MB	12d ago	Preview	Print	⋮
	\$0.69	06:05h	7.1 MB	15d ago	Preview	Print	⋮

Your print job has been sent to the queue 

[Go to Printers](#)

A pop-up will indicate that your print has been queued to the machine.

Click the "Go to Printers" link in the pop-up, or click on "Printers" at the top of the page to view the printer list.

This page shows the progress and queue of all machines in the Digital Fabrication Lab printer farm.

The print that was just submitted to "Arch-14" now shows as first in queue for that machine.

The screenshot displays a management interface for a printer farm with five machines, each an Ultimaker S3. The machines are labeled ARCH-14 through ARCH-18. Each machine's status is shown, including a 'Build Tray is clear' toggle, a camera icon, and a menu icon. The temperature for each machine is listed for Extruder 2, Extruder 1, and the Heated bed. A queue is visible for each machine, with the top job in the queue for ARCH-14 highlighted by a red box. The job is 'UMS3\_house2\_part2', submitted '1m. ago by me', with a cost of '\$3.24' and a weight of '216.29g'. A red arrow points from a yellow note to this job. The interface also shows a 'Sort by: oldest first' option and a 'Support' button at the bottom right.

Machine	Material	Extruder 2	Extruder 1	Heated bed	Build Tray is clear	Queue
ARCH-14	PLA - 0.4mm	28.9 °C	29 °C	27.8 °C	Build Tray is clear	1 job - 14:37h UMS3_house2_part2 (1m. ago by me, \$3.24, 216.29g)
ARCH-15	PLA - 0.4mm	28.5 °C	27.9 °C	28.8 °C	Build Tray is clear	
ARCH-16	PLA - 0.4mm	27.9 °C	27.6 °C	27.5 °C	Build Tray is clear	
ARCH-17	PLA - 0.4mm	28.2 °C	28 °C	27.7 °C	Build Tray is clear	
ARCH-18	PLA - 0.4mm				Build Tray is clear	

Once the print is started by lab staff, you can check this website to track the progress of your print.

*All printers have camera access so you can check on your print in real time.*

The screenshot displays a dashboard for five 3D printers, all identified as Ultimaker S3. Each printer's status is shown in a card format. The top card, ARCH-14, is currently printing a job named 'UMS3\_house2\_part2'. The dashboard includes a queue summary, a 'Sort by' dropdown set to 'oldest first', and a 'Support' button at the bottom right. A red box highlights the camera icons for each printer, indicating that real-time video monitoring is available for all units.

Printer ID	Model	Material	Extruder 2 Temp	Extruder 1 Temp	Heated bed Temp	Status	Camera Access
ARCH-14	Ultimaker S3	PLA - 0.4mm	28.9 °C	29 °C	27.8 °C	Printing (UMS3_house2_part2)	Yes
ARCH-15	Ultimaker S3	PLA - 0.4mm	28.5 °C	27.9 °C	28.8 °C	Idle	Yes
ARCH-16	Ultimaker S3	PLA - 0.4mm	27.9 °C	27.6 °C	27.5 °C	Idle	Yes
ARCH-17	Ultimaker S3	PLA - 0.4mm	28.2 °C	28 °C	27.7 °C	Idle	Yes
ARCH-18	Ultimaker S3	PLA - 0.4mm	28.2 °C	28 °C	27.7 °C	Idle	Yes

Lab staff will start the print, usually within 1 hour of submission, between operational hours (9am - 10pm in the Fall/Spring).

Prints submitted at closing and after hours will be reviewed the following business day.

You will receive an automatic email notification when your print has:

- Queued
- Started
- Stopped/Paused
- Finished



### Your Object Is In Queue To Be Printed!

Dear Rachel,

Your 3D object: **CCR20\_house2\_part2.gcode** is in queue to be printed on **ARCH-09**.

If you have your camera enabled and pointed at the printer you will receive a Video via email when the print is done.


Regards,  
3DPrinterOS Team.

3DPrinterOS Cloud

**ARCH-14**  
Ultimaker S3 Build Tray is clear 📺 ⋮

① PLA - 0.4mm Extruder 2 **29.1 °C** Extruder 1 **29 °C** Heated bed **27.8 °C**

Downloading: 11%

 **UMS3\_house2\_part2** 14:37h 4m ago by me \$3.24 216.29g Pause Cancel ⋮

**ARCH-15**  
Ultimaker S3 Build Tray is clear 📺 ⋮

① PLA - 0.4mm Extruder 2 **28.5 °C** Extruder 1 **28 °C** Heated bed **28.8 °C**

**ARCH-16**  
Ultimaker S3 Build Tray is clear 📺 ⋮

① PLA - 0.4mm Extruder 2 **27.9 °C** Extruder 1 **27.6 °C** Heated bed **27.5 °C**

**ARCH-17**  
Ultimaker S3 Build Tray is clear 📺 ⋮

● PLA - 0.4mm Extruder 2 **28.2 °C** Extruder 1 **28 °C** Heated bed **27.7 °C**

**ARCH-18**  
Ultimaker S3 Build Tray is clear 📺 ⋮ Support

To CANCEL your ongoing or queued print job, click the "Cancel" button.



You are going to cancel the UMS3\_house2\_part2.gcode on ARCH-14



Take me back

Cancel job

A confirmation window will pop-up, click "Cancel job" to confirm.



ARCH-14  
Ultimaker S3  
PLA - 0.4mm  
Queue: 0 jobs -  
UMS3\_h  
gcode

ARCH-15  
Ultimaker S3  
PLA - 0.4mm

ARCH-16  
Ultimaker S3  
PLA - 0.4mm

ARCH-17  
Ultimaker S3  
PLA - 0.4mm  
Extruder 2 28.4 °C  
Extruder 1 28.1 °C  
Heated bed 27.7 °C

ARCH-18  
Ultimaker S3  
Build Tray is clear

Build Tray is clear

Support

What is the reason for canceling this job? Please select one or more boxes below:

**Hardware issues:**

- Nozzle clogged
- Calibration issues
- The first layer not sticking
- Underextrusion
- Hardware malfunction
- Electrical part malfunction
- Firmware issue
- Filament runout

**Slicing issues:**

- Wrong slicer settings
- Insufficient slicing quality
- Incorrect printing speed
- Incorrect temperature(s)

**3D model/job issues:**

- Incorrect model position
- Incorrect file
- Not needed print job
- Another high priority print
- Model is too large/small
- Insufficient model quality
- File design issues

Sort by: manual sorting

Please describe the problem in more detail:

I submitted the wrong file

Send a notification to the job owner via email

Close OK

You can leave your reasoning for cancellation in the following window, then submit by clicking "Ok".

*Prints cancelled late in the job may not issue refunds as a majority of the resources have already been spent. Always double-check your work and confirm your project needs prior to submitting a job.*

