



JANUARY 25, 2023






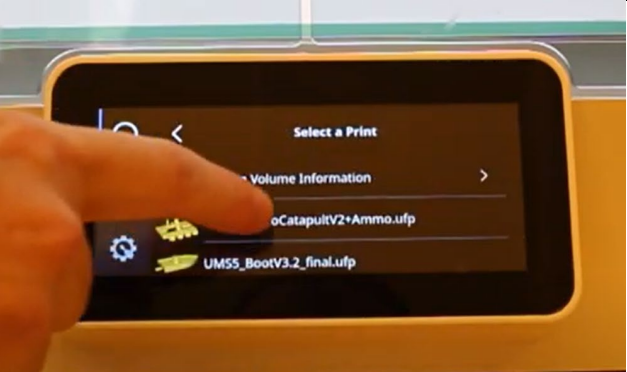
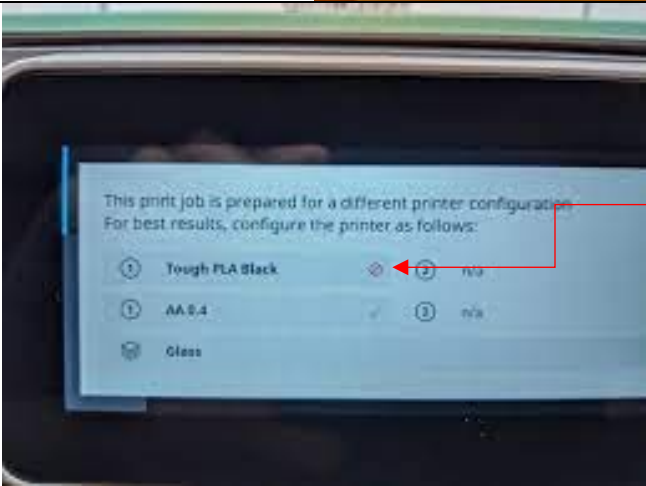
ULTIMAKER S5 OPERATIONS


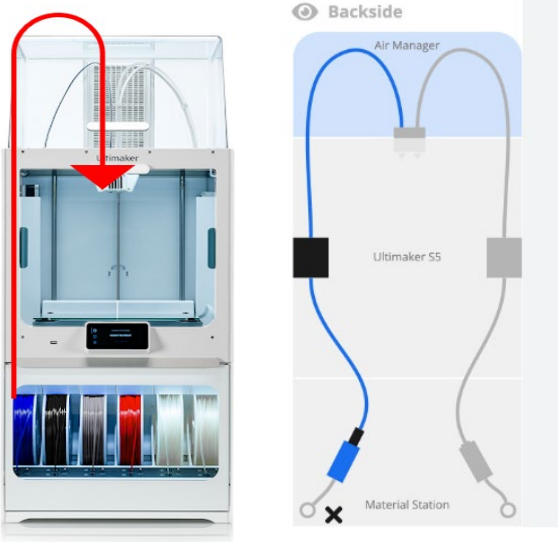
STEP BY STEP: HOW TO START A 3D PRINT


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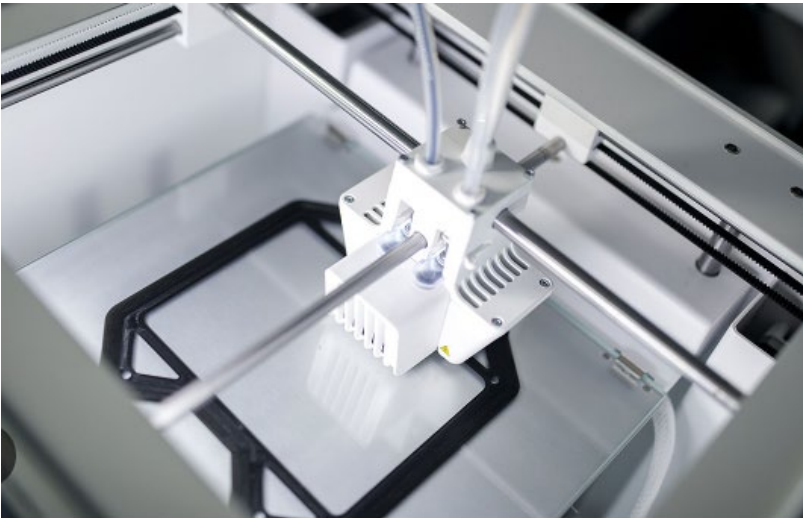
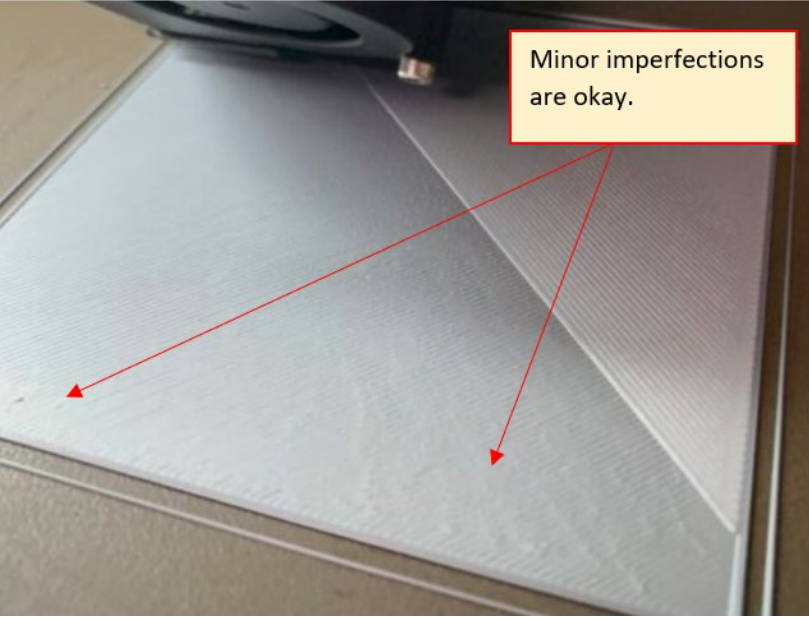
#	Steps	Key Points	Why?	Pictures
1	<p>You should have already:</p> <ul style="list-style-type: none"> • Booked a 3D Printer • Prepared 3D model to print using Cura. 	<p>Reservations are required.</p> <p>Preparing a model to print using Cura is required.</p> <p>Be sure to bring:</p> <ul style="list-style-type: none"> • Photo ID • USB drive • Library Card 	<p>All fees will be paid online by logging into your library card account online.</p>	 <p>RESERVATION</p> <p>.UFP FILE ON USB A DRIVE</p>
2	<p>Check in with staff to begin your 3D Printing session.</p>	<p>Check in with staff on the 2nd floor of the library.</p> <p>The 3D printers are in the library maker space located on 2nd floor of the library.</p>	<p>Staff will be at the top of the stairs and can get you started!</p>	

3	Review Safety Precautions Card	Review the safety precautions with staff before proceeding. Safety card located at 3D printer.	Know the risks and how to prevent injury.	
4	Input USB drive into 3D printer	Insert USB drive into USB port in front of the 3d printer. The USB drive should contain the .UFP file you saved using the Cura software.	3d printer will be able to access the files saved to this USB drive. The .UFP file contains all the print instructions the printer needs to print your object.	
5	Select File	Tap "Select from USB" on printer screen.		

6	Select File	Tap the name of the file on the screen you want printed.		
7	Check for configuration errors.	<p>A common warning is a result of the material or print core selected is not available.</p> <p>Try again in Cura to prepare your file to print.</p>	<p>Note that extruder 1 must be an Ultimaker brand PLA filament in one of the available colors.</p> <p>Extruder 2 should either be set to use Ultimaker Natural PVA <u>or disabled if not using PVA.</u></p>	 <p>This material is not available on the 3D printer.</p>

8	Start Print	<p>Tap the blue “Start Print” button on the printer screen.</p> <p>Make note of how long your print takes to know when to come back to pick up your object.</p>	<p>This will initiate the print and the printer will begin to heat up and load filament.</p> <p>It will also do a level check of the bed.</p>	
9	Observe filament loading	<p>The 3D printer will then load the filament of your choice into the extruder.</p> <p>Note any error messages.</p> <p>Filament will feed from the spools below through the clear tubes at the top of the hood and down into the extruder.</p>	<p>If there is an issue with loading the filament, your 3D print will not begin.</p> <p>See staff if there is an error.</p>	

10	Nozzle Extruder strands of filament	<p>The nozzle will be primed with the new plastic.</p> <p>You will see a few long strands of plastic fall from the extruder nozzle to the bottom of the printer.</p>	<p>This is the printer pushing out any previous used filament of a different color and priming the nozzle with the new filament.</p>	
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11	Initial Layer	<p>The printer will begin printing the first layer of the object on the glass build plate.</p> <p>Watch for adhesion issues where plastic does not stay in place.</p> <p>Abort the print and remove the first attempt from the glass build plate before starting a second attempt.</p> <p>Minor imperfections are common and will improve with the second layer.</p>	<p>If the initial layer is not adhering to the glass build plate, the subsequent layers may be impacted.</p> <p>TIP: Adding a thin layer of glue stick to the glass can improve adhesion.</p>	 
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12 Pay Online

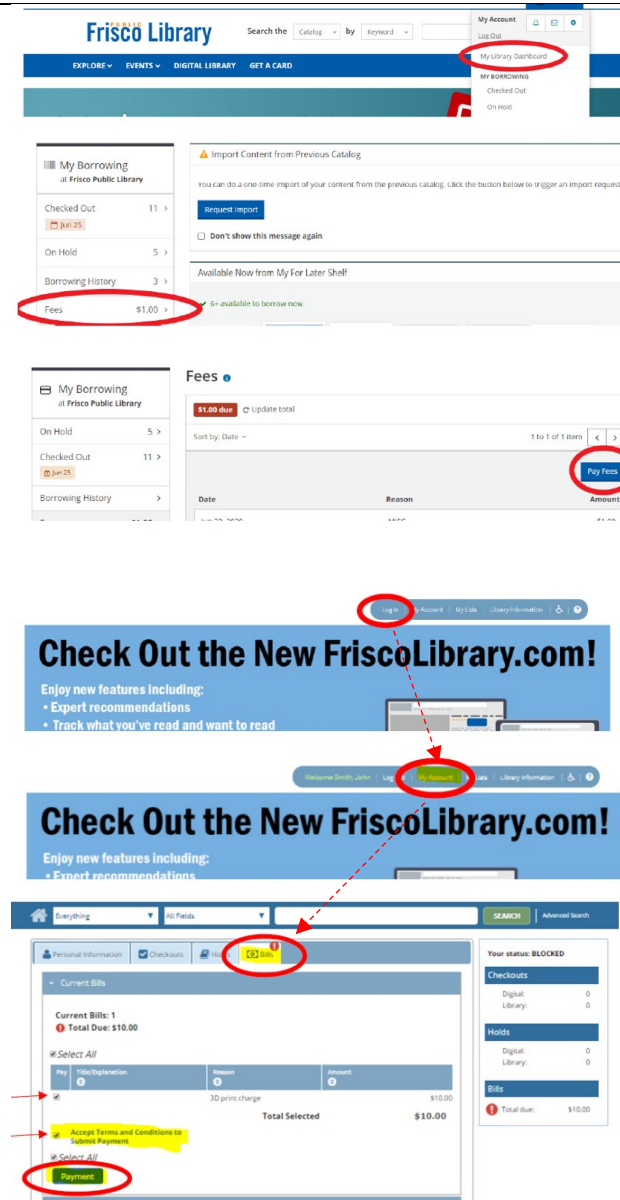
Staff will apply the 3D printing costs to your library card account.

Log into your library card account online to pay for your 3D prints.

After clicking the **Pay Fees** button, you will be redirected to a new website. You may need to log into your account again after the redirect.

Instructions on how to pay online can be found on the website.

Note that when your account has unpaid fees your account will be blocked. Once you have paid the fees your account will automatically be unblocked.



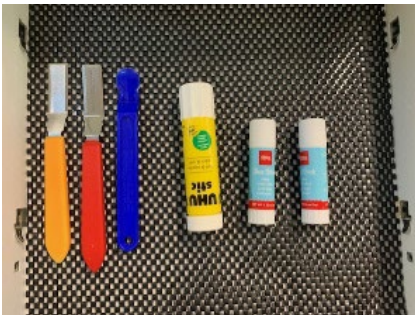
TOOL INVENTORY

Drawer 1 – 2 items



- Cleaning Filament Container
- Cleaning Instructions

Drawer 2 – 6 items



- Removing Spatulas (3)
- Glue Sticks (3)

Drawer 3 – 2 items



- Cura Preparing Instructions
- 3D Printer Operating Instructions

Drawer 4 – 4 items



- Cutters
- Bolt Driver
- Screw Lubricant
- Oil