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PART 2: START PRINT ON FORM3

STEP BY STEP INSTRUCTIONS: STARTING A PRINT JOB ON FORM3 PRINTER

FRISCO PUBLIC LIBRARY
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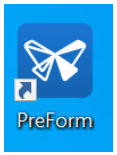
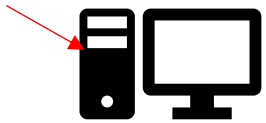
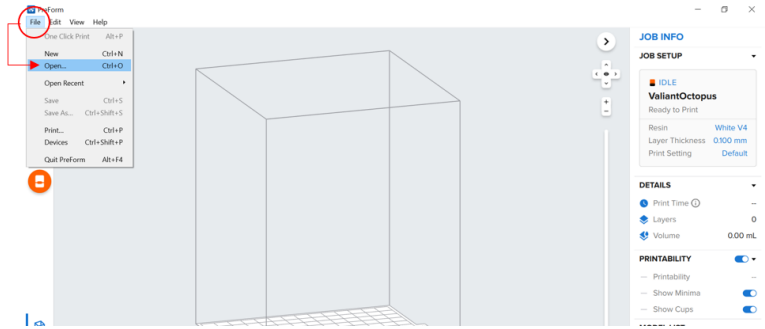
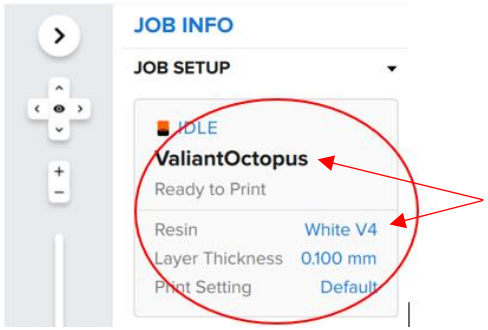
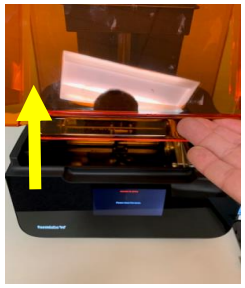
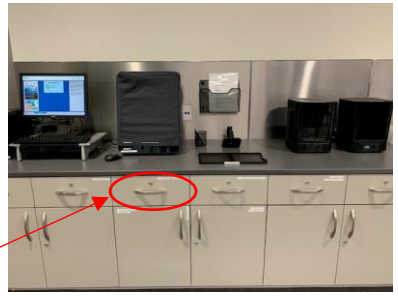
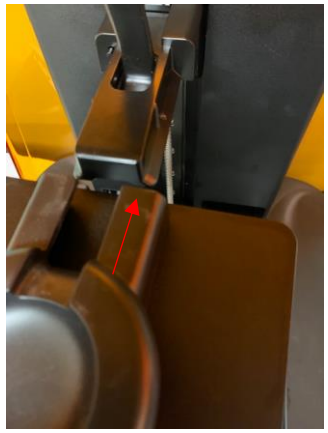
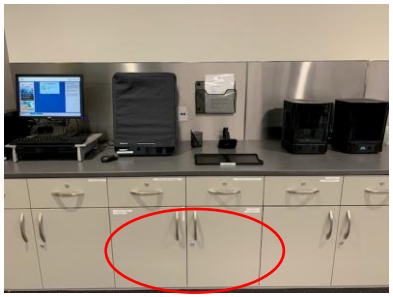
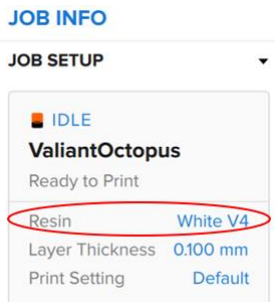
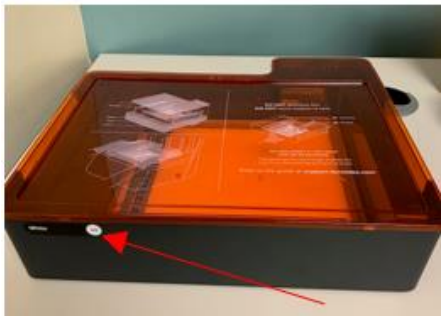
Printing Object on Form3 Printer

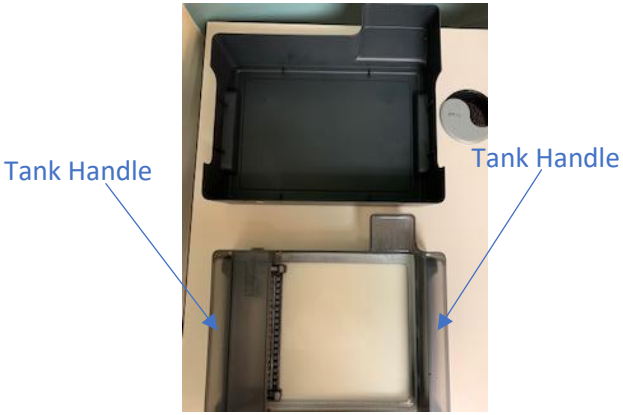
1	Launch PreForm software.	Software icon is located on the desktop of the library computer.	
2	Insert USB drive to computer.	USB ports are located on the front of the tower located to left of the monitor.	
3	Open your .**form** file: 1. **File** menu→**Open…** 2. Select your **.form** file	You should have already prepared your STL or OBJ file for printing and saved it as a .form file. The .form file has all the details for how to print the object saved.	

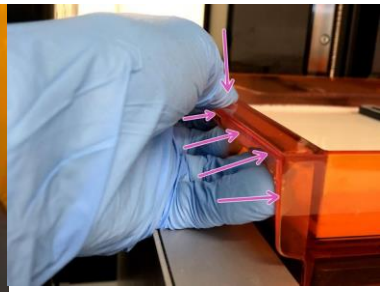
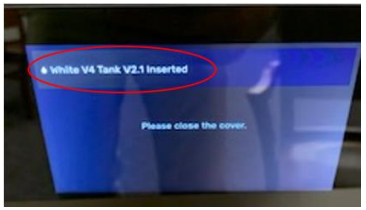
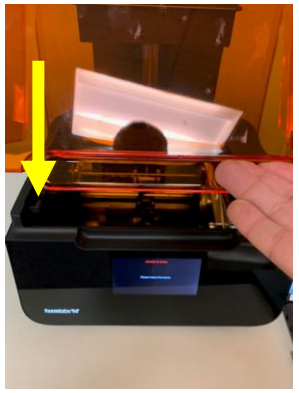
4	Check print settings in Pre-Form: • Printer: **ValiantOctopus** • Note resin type	On the right-hand side of the screen under Job Info section you should see the name of the printer if it is connected. See staff if help is needed.	
5	Open Printer hood		
6	Put on protective safety equipment: • Nitrile gloves • Safety glasses	Gloves and safety glasses stored in labeled drawer. See posted First Aid instructions for exposures to: • **liquid resin** • **isopropyl alcohol** (washing solvent)	

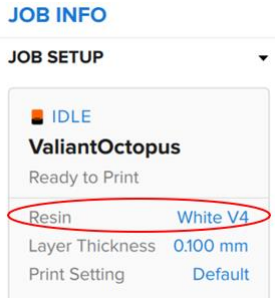
7	Check that the build platform is installed. Metal plate of the build platform should be dry and clear of any residue, tackiness, or cured resin (plastic bits).	Use IPA alcohol and a paper towel to remove any liquid resin. Use scraper to remove any cured resin (plastic bits). Build platform may be stored in the labeled cabinets below drawers if it is not installed in the printer.	 Build platform installed. Build Platform

8	Installing Build Platform (If Needed): Lift the build platform carriage handle.	Image shows the handle in the lifted and unlocked position.	
9	Installing Build Platform (If Needed): Align the build platform with the build platform carriage and slide back into place.	Platform should slide easily with just a little resistance when aligned properly.	

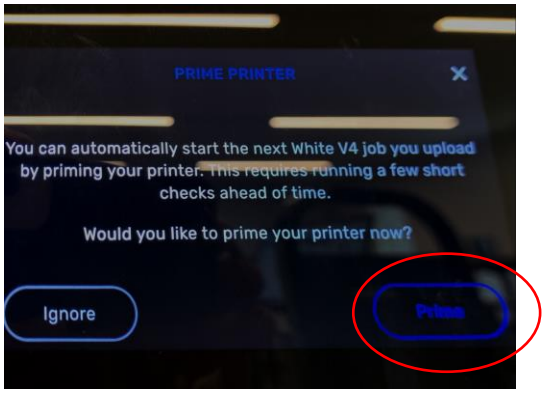
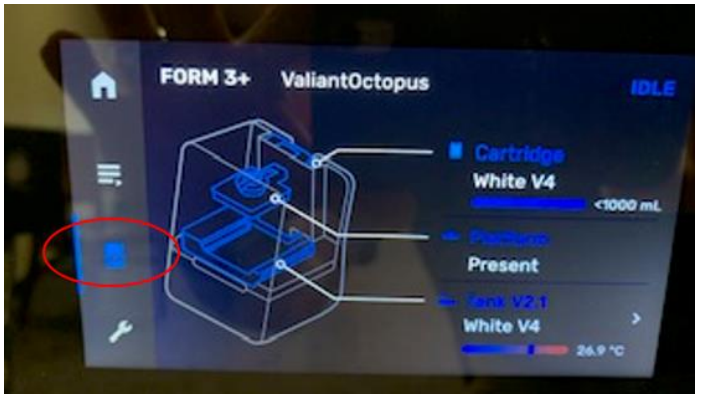
10	Installing Build Platform (If Needed): Lock the handle down to secure the build platform.	Image shows the handle in the down and locked position.	
11	Open resin tank cabinet. Labeled cabinet below drawers.	ALWAYS KEEP LEVEL Tilting tank storage container will result in spills. Resin can spill out of tank inside the storage container.	 ALWAYS KEEP TANK LEVEL EVEN SLIGHT TILTS WILL RESULT IN SPILLS
12	Select resin tank. Resin tank should match resin type in PreForm job setup. See step 4.	Resin tanks are labeled on front side of the storage container. Resin on inside should match color: • Black V4 • White V4 • Clear V4	 

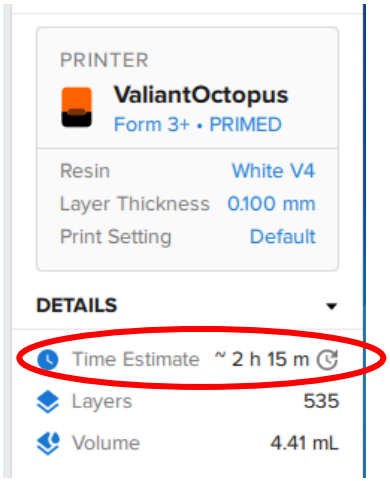
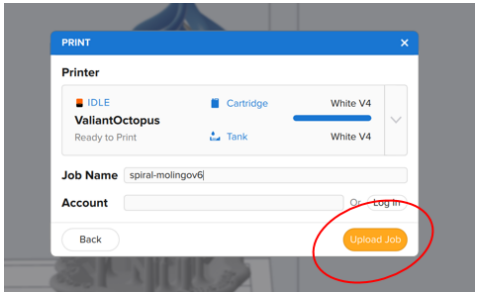
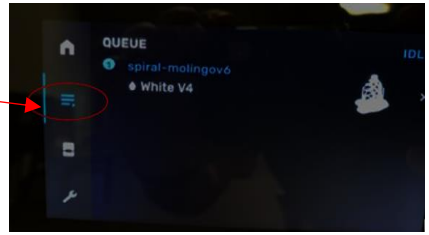
13	Remove storage container cover.	The orange cover blocks UV light that will cause resin to solidify. Do not touch liquid resin inside tank.	 Orange resin storage container cover removed.
14	Lift resin tank out of tank storage box. Hold by handles on each side. Do not set the tank down. If there is a spill, place tank down on clean soft cloth.	 NEVER touch underside of resin tank once you lift it out of storage box. Never rest resin tank on counter or other hard surfaces.	

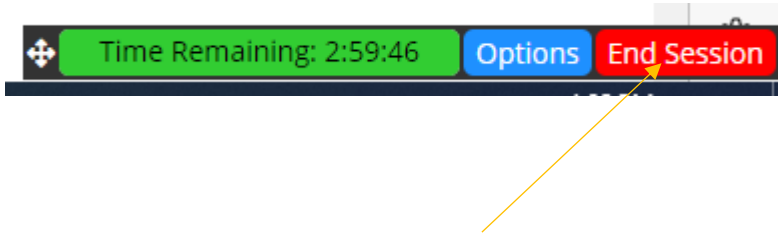
15	Insert tank into printer. When tank is inserted properly, the printer will chime. Printer screen will briefly display a message confirming the tank is installed. 1. Place tank into printer on the rails, flat side facing you. 2. Gently push on the front of the tank. Push away from you and towards the tower on back of printer.	Be sure to keep holding by the side handles. **DO NOT** allow underside of tank to contact any surfaces. **DO NOT** touch underside of the tank.	  
16	Close Cover	The printer screen will prompt you to close the cover. Gently close the orange hood of the printer.	

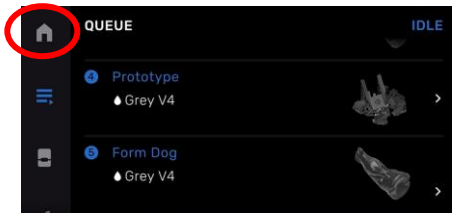
17	Select resin bottle (cartridge). Resin cartridge **must match** resin type in tank and on PreForm job setup details.	Resin cartridge bottles stored in label cabinet with the resin tanks. Resin kept in plastic sleeves in case of leaks. Set sleeve aside to reuse when storing resin cartridge bottle.	 
18	Gently shake resin bottle (cartridge) by slowly tilting it back and forth.	If there is a resin drip, use paper towels to clean off resin and shake slower and more gently.	
19	Remove the protective valve coverings from resin cartridge bottle. Set covering aside to be re-used with same resin bottle after printing.	When the resin bottle is in storage, the protective covering helps protect the bite valve and improve shelf-life of resin.	

20	Check bite valve on bottom of cartridge. When pinched, the bite valve should open. Release and let bite valve close.	Always wear gloves to protect your skin from resin.	 Gloves should be worn.
21	Insert resin cartridge bottle into printer. Bottle should fit flush with the top of printer. Printer will chime when successfully inserted. Screen will briefly display message indicating cartridge was inserted.	On the top of the printer, at the back of the hood is a slot for the resin bottle. Lower it carefully into the slot.	
22	Open resin cartridge bottle spout valve.	Opening the spout will allow the printer to dispense the resin from the bite valve on the bottom of the cartridge bottle into the resin tank.	

23	Prime Printer	If the touch screen prompts you with the option to prime: Tap **Prime** Follow prompts on touch screen.	
24	Confirm installations are correct and ready. Tap printer icon on display screen of the printer. Details should confirm all units installed correctly: • Cartridge (resin bottle) • Platform (build plate) • Tank	Tap printer icon on the touch screen of 3D printer. 	

25	Double Check Time	Do you have enough time for your print to complete **before** the end of your reservation? It is not possible to stop part way through a print and then resume at a later date and time. You can always perform the wash and curing steps at a later date and time.	
26	Send Print Job to printer from computer: 1. Select File menu → Print 2. Click Upload Job	The printer may automatically start the print job if the printer is primed.	
27	If the job does not automatically start: Select job from Queue on Form3 Printer 1. Tap **Queue** icon 2. Tap **file name** to print 3. Tap **Print**	If the printer is primed, often the print jobs will automatically start.	Queue 

28	Printer will begin printing your object. Take note of total time to print object. Staff are not responsible for abandoned prints left in the printer.	We recommend watching the initial process to confirm a good start and no error messages. It will take a few minutes for the tank of resin to warm up before printing starts.	 TIP: Set an alarm for when object is ready.
	If you step away from work area: -Put away tools -lock drawers and cabinets -let staff know your plans		
29	End Computer Session If you will not be using the computer while waiting, please end your computer session.	The computer session control bar is usually floating on the screen in the lower right corner. At this point the Form3 printer can continue to work on its own. You no longer need the computer.	

30	Progress Status: Tap **Home** icon	On the touchscreen of the Form3 printer, you can tap the **home icon** to see the progress status of your print.	
31	Proceed to next instructions: Part 3: Remove Object & Wash	The next set of instructions will guide you through removing the object form the build platform and washing the object.	