

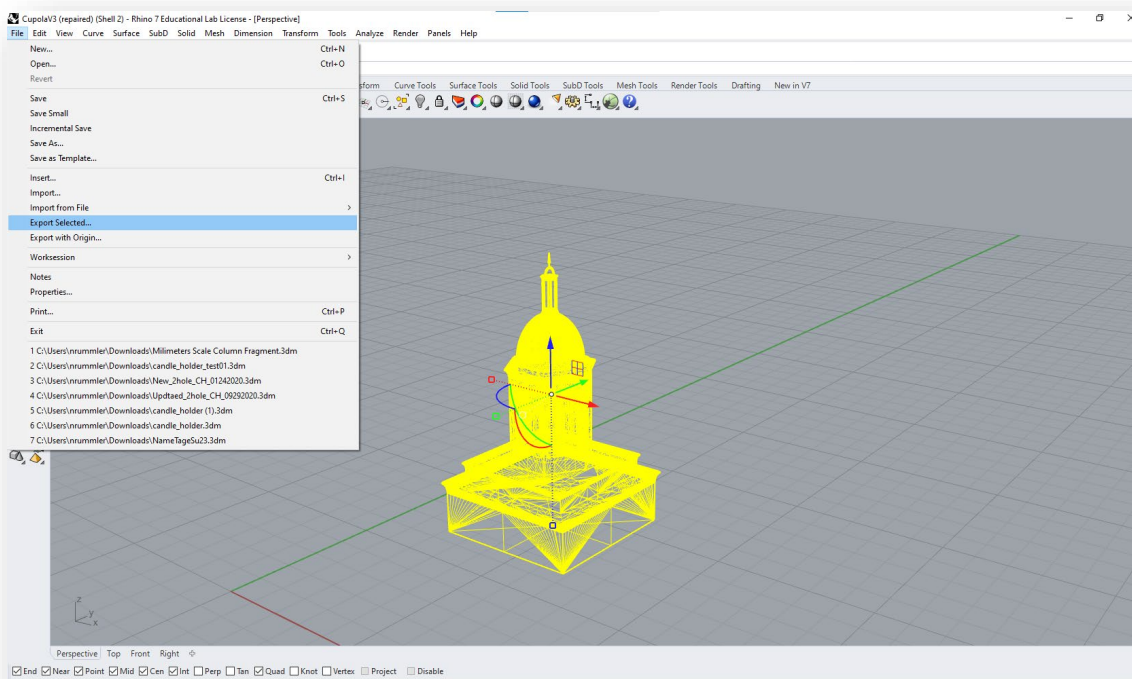
Using the RP Lab: 3D Printing

STEPS TO GET YOUR PARTS 3D PRINTED

Tip: Before exporting your model, try copying the piece(s) into a new and clean Rhino file

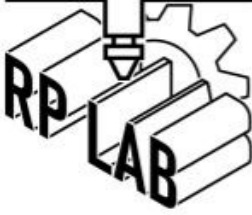
Exporting

1. Model your files in the 3D software you prefer.
2. Scale your part. Our 3D printers use millimeters for the units. We are able to scale the file in the lab, but it's best if you know the dimensions of the part.
3. Export selected part in Rhino.



4. Select **STL File** (stereolithography file)
5. Name your file 'LAST name first name_1'
6. Fill out the 3D Print Request Form, here: [Job Request Form - 3D Printing](#)

UW-MILWAUKEE
SCHOOL OF ARCHITECTURE
AND URBAN PLANNING



3D Print Request form

Email parts to: uwmrplab@uwm.edu

This form must be sent with your STL file to the RP LAB email.
Files should be exported in mm as the machines operate in mm. 3D printing will be set up by an RP Lab technicians

All prints come with a \$2.00 set up fee for each build you submit.
Resin printing is \$.08 per mL Lab Plastic \$.05 per gram (student rates)
Max build volume (Printing to the max increases your chances of a print failing)
 Lulzbot Taz 6 and 5 (uses 3mm PLA only) build volume is 275mm x275mmx250mm
 Elegoo Mars (resin printers) build volume is 120mm x 68mm x 155mm

First Name: _____ Last Name: _____

Due Date: ____/____/____ Email: _____ Gold Account ID#: _____

Type of Print: Lab Plastic

File Name: _____ PLA Plastic-White <input type="checkbox"/> Standard (mid) <input type="checkbox"/> Yes Supports <input type="checkbox"/> Dimensions: Millimeters or inches X: ____ Y: ____ Z: ____ <small>(Millimeters preferred)</small>	LAB-USE: Start time: _____ Total hours _____ Print Done: <input type="checkbox"/> Grams _____ Notes _____
File Name: _____ PLA Plastic-White <input type="checkbox"/> Standard (mid) <input type="checkbox"/> Supports Yes or No <input type="checkbox"/> Dimensions: Millimeters or inches X: ____ Y: ____ Z: ____ <small>(Millimeters preferred)</small>	LAB-USE: Start time: _____ Total hours _____ Print Done: <input type="checkbox"/> Grams _____ Notes _____
File Name: _____ Material and Color <input type="checkbox"/> Select Speed <input type="checkbox"/> Supports Yes or No <input type="checkbox"/> Dimensions: Millimeters or inches X: ____ Y: ____ Z: ____ <small>(Millimeters preferred)</small>	LAB-USE: Start time: _____ Total hours _____ Print Done: <input type="checkbox"/> Grams _____ Notes _____
File Name: _____ Material and Color <input type="checkbox"/> Select Speed <input type="checkbox"/> Supports Yes or No <input type="checkbox"/> Dimensions: Millimeters or inches X: ____ Y: ____ Z: ____ <small>(Millimeters preferred)</small>	LAB-USE: Start time: _____ Total hours _____ Print Done: <input type="checkbox"/> Grams _____ Notes _____
File Name: _____ Material and Color <input type="checkbox"/> Select Speed <input type="checkbox"/> Supports Yes or No <input type="checkbox"/> Dimensions: Millimeters or inches X: ____ Y: ____ Z: ____ <small>(Millimeters preferred)</small>	LAB-USE: Start time: _____ Total hours _____ Print Done: <input type="checkbox"/> Grams _____ Notes _____

Lab Tech: _____

All 3d prints will be held until the end of the semester, the prints will be disposed of after that point. Please pick up your prints as soon as possible as there is limited space in the RP Lab. Refusing to pick up a 3d print does not constitute a refund for the print.

7. Fill out your Name, Due Date, and Email
8. On the left side column, fill out your File Name. Remember to choose the type of plastic and color, as well as adding preferred final dimensions of the printed piece.
9. Send your STL file and the 3D Print Request form to uwmrplab@uwm.edu

Note: The MAX print size for our printers

PLA Printers (Lulzbot Taz6/Workhorse) 275mm x 275mm x 250mm (10.82"x10.82"x9.84")

Resin Printers (Elegoo Mars) 120mm x 68mm x 155mm (4.72"x2.66"x6.1")

Note: The Lab will check over your file and make sure there are no issues with your print. If we find any issues, we'll reply to the email sent.

Frequently Asked Questions

1. How many printers can I be printing on at the same time?
 - a. PLA (1), Resin (2).
2. When do I pay for my print?
 - a. You will pay for the print when you pick it up (we accept debit/credit and panther card).
3. How do I know when my print is done?
 - a. We will send an email when completed.
4. How long will it take to get my file printed?
 - a. During rush times, the queue gets backed up, and we print in the order they were received. Sometimes the queue has a backlog of 3 days, so plan accordingly.
 - b. Larger prints can take as much as 24-72 hours printing, which can add to the time as well.
5. My print failed, why?
 - a. There's many reasons a 3D print can fail:
 - i. Files with open gaps
 - ii. Files with thin walls (<1mm)
 - iii. Large files printing overnight (not monitored)
 - iv. Humidity levels in the lab
 - v. Not enough supports programmed
6. If my print fails, can it be re-printed immediately?
 - a. Yes, we will restart the print after attempting to diagnose the issues.
 - b. Note: if we diagnose that the model is too complicated/thin to print, we will not attempt to print more than 2 times.