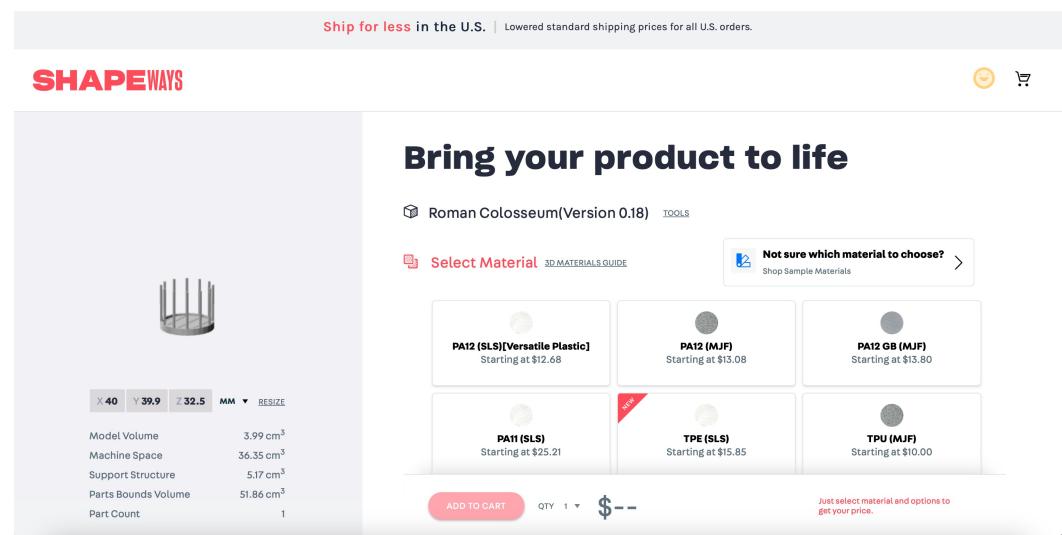
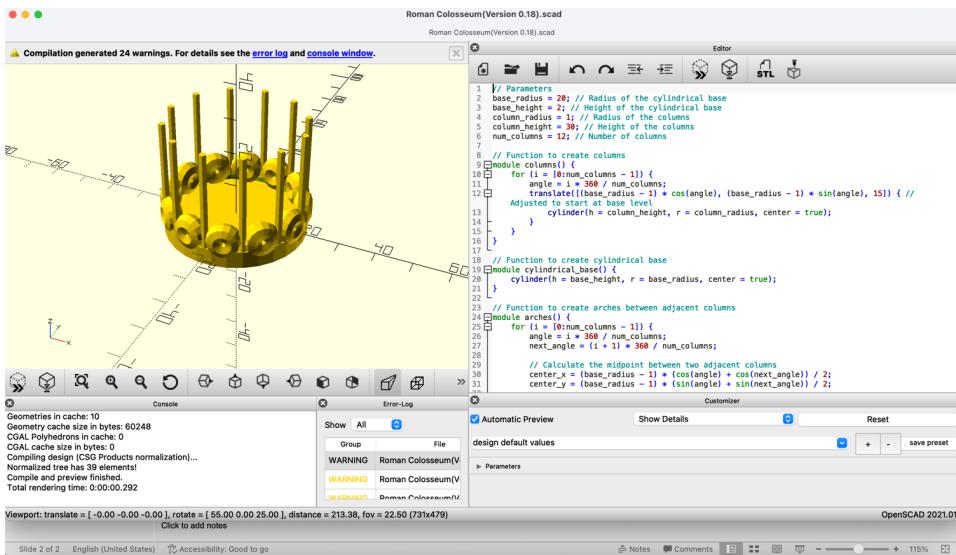
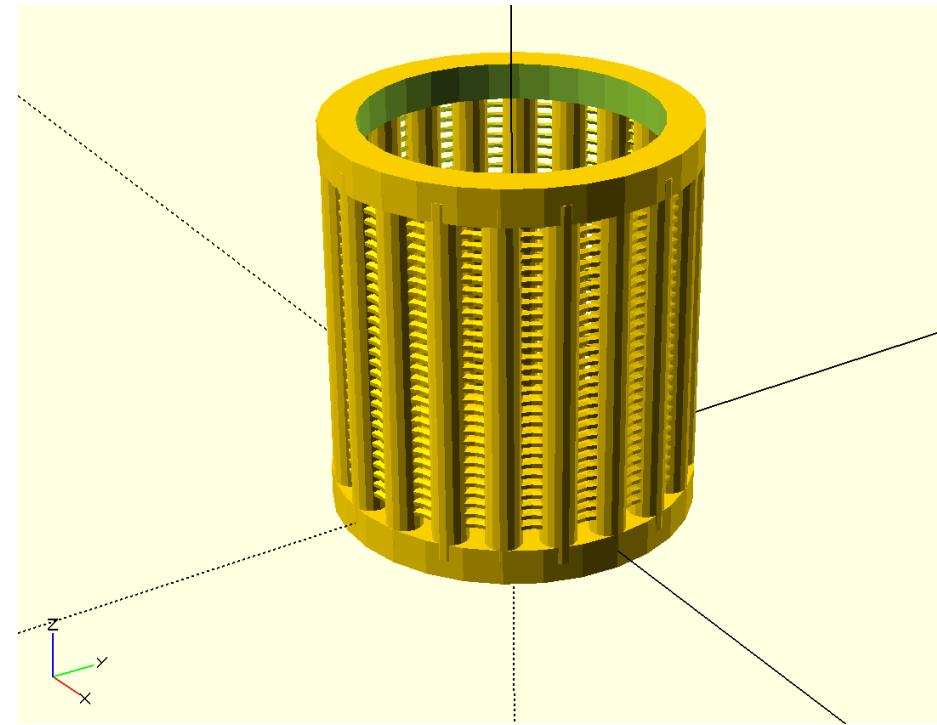
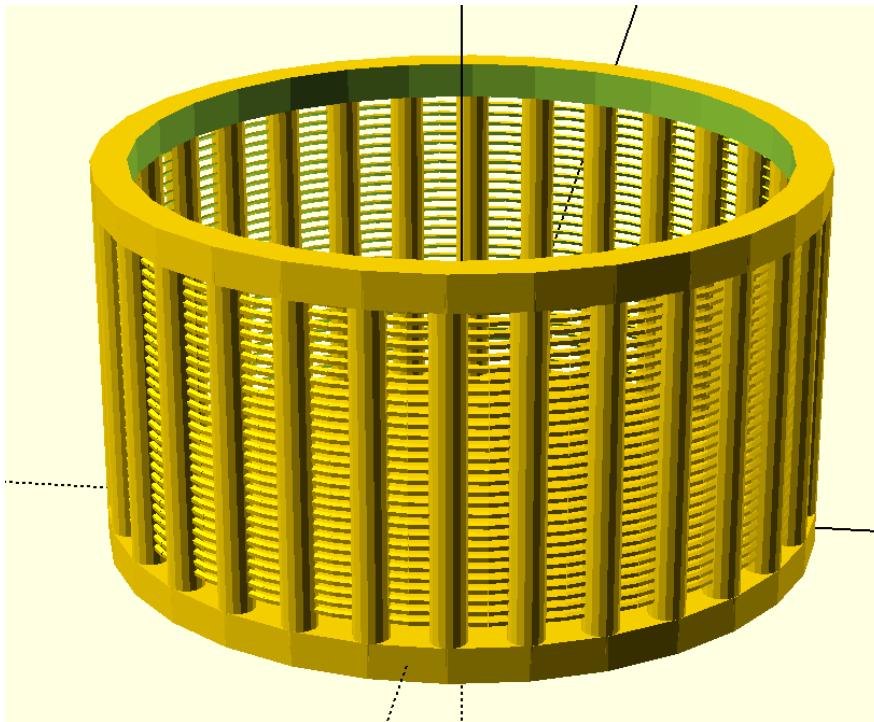


MECE 4606 Digital Manufacturing
Spring 2024
Assignment II
Nicolino Primavera (ncp2136)
Submission: 2/23/24 at 11:59pm
Grace Hours: 106 + 48 hours

Preliminary Assignment



Rendering



Description of the Algorithm

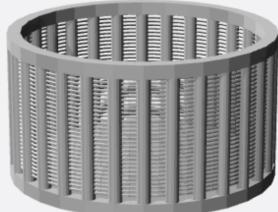
1. Define params
2. Use a for loop to create a specific number of columns with specified params
3. Create a cylindrical base (floor) utilizing the cylinder function
4. Create a floor plate using the difference of two cylinders
5. Create a roof/top for the columns utilizing a translation and the difference between two cylinders
6. Create the lines connected between the columns by using a for loop withing another for loop
7. Called all the functions to create the Colosseum

Shapeways price estimate

Ship for less in the U.S. | Lowered standard shipping prices for all U.S. orders.

SHAPEWAYS

Bring your product to life


X 200 Y 198.96 Z 110 MM ▾ RESIZE

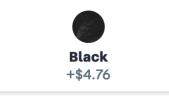
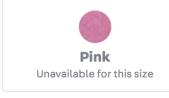
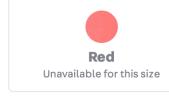
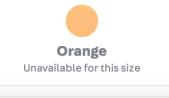
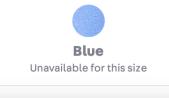
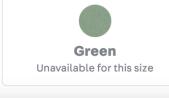
Model Volume 588.13 cm³
Machine Space 1001.62 cm³
Support Structure 385.55 cm³
Parts Bounds Volume 4376.94 cm³
Part Count 1

NEW COLOSSEUM 2.0 [TOOLS](#)

PA12 (SLS)[Versatile Plastic] [CHANGE](#)

Choose Options

COLOR

 White	 Black +\$4.76	 Pink Unavailable for this size	 Red Unavailable for this size
 Orange Unavailable for this size	 Blue Unavailable for this size	 Green Unavailable for this size	 Yellow Unavailable for this size

ADD TO CART QTY 1 ▾ **\$467.11**

Go to cart to see bulk pricing

3D Printed Lampshade





Glamour Photos

ED Discussion Post

ed MECE 4606 – Ed Discussion

New Thread

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- MECE 4611 S1 26

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- Laser Cut Box
- Lampshade Lattice
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- Food Printing

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This Week

Lampshade Lattice Nico Primavera now

Lampshade Lattice Adhiraj Londhe 1h 1

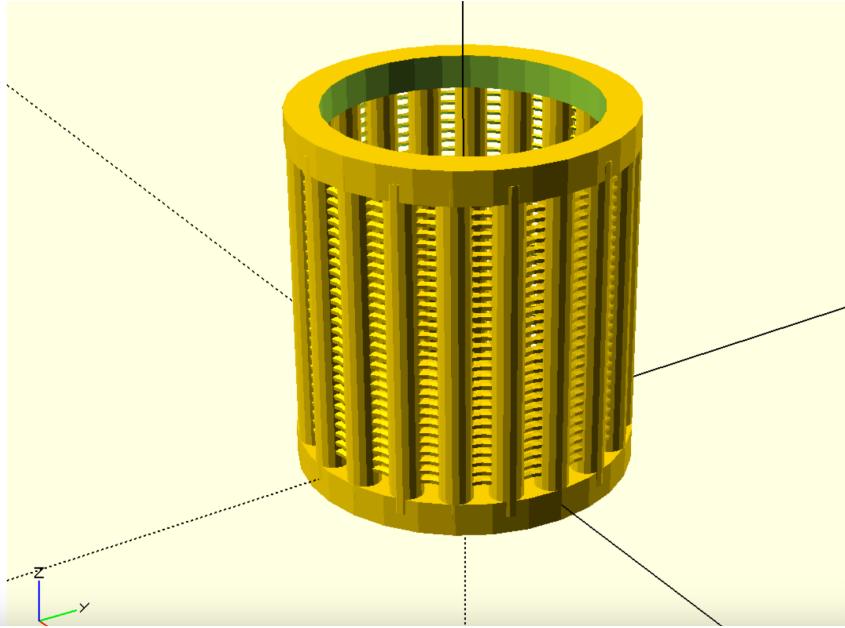
Lampshade Lattice - Andrew Chin & Jay Ya...
Lampshade Lattice Andrew Chin 2h 1

Lampshade Lattice
General jialong Ning 4h 2

DNA Lampshade Lattice Group 16
Lampshade Lattice Emile El Azar 5h

Nico Primavera Now in Lampshade Lattice

Hi all,
Please see my lampshade attached below. I went for a Roman Colosseum look.



STAR WATCHING 1 VIEW

Appendix

- <https://docs.google.com/document/d/1fauyjHukIJT1O7C0GxAX7wqvNJ7aBbZBNR6oRx2kCUA/edit?usp=sharing>
 - Code for the wider structure

Rubric

1. 10pts Cover page correct and complete (Slide 1)
2. 10pts Report neatly organized and formatted (All Slides)
3. 10pts Report with initial upload to Shapeways submitted a week before the deadline (Slide 2)
4. 10pts Program code listed in appendix (Slide 10)
5. 10pts rendering in OpenSCAD or Blender (Slide 3)
6. 10pts model complexity (based on number of elements, pattern) (Slide 3)
7. 10pts Screenshot of Shapeways page with product cost <\$500 (Slide 5)
8. 10pts multiple variations of the design shown (Slide 3)
9. 10pts product is stable on flat surface (Slide 6 & 8)
10. 30pts 3D Printed lampshade (show multiple shots) (Slide 6)
11. 10pts printed lampshade sanded and painted (show closeup photos)
12. 10pts Glamour photo of printed lampshade with light, in dark (Slide 8)
13. 10pt lampshade rendering posted on Ed at least 24h day before the deadline (show screenshot) (Slide 9)
14. 10pt Edited video of the entire process: Keying in parameters, printing, assembly, use.