



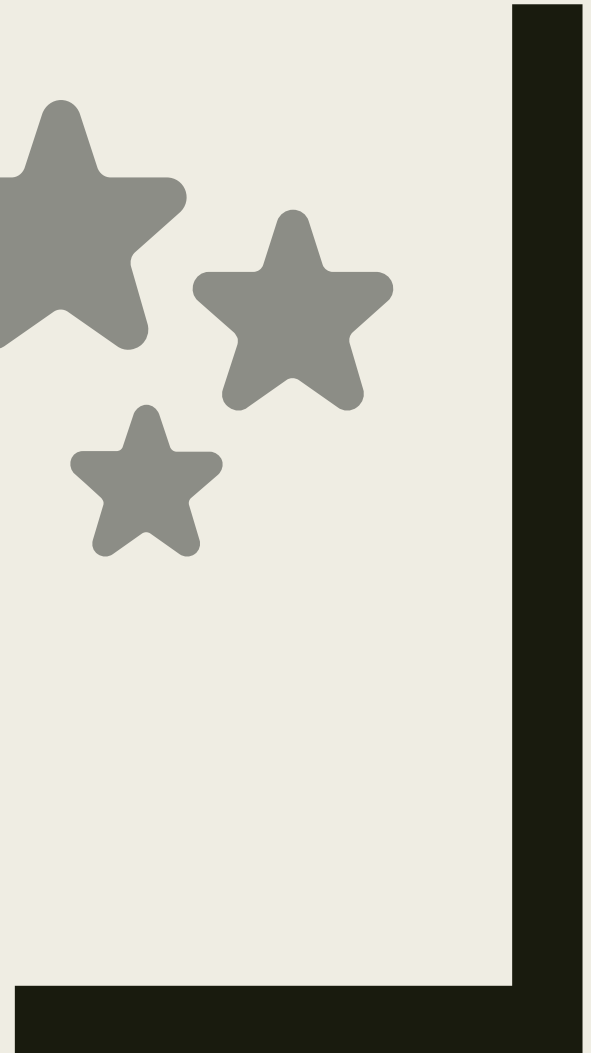
# STAR LAMP

Fall Semester - 2023

Maria Silva

Survey of Engineering Graphics

Lamp Project



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DESCRIPTION



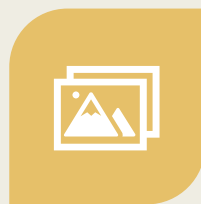
SKETCHES



CAD/CAM FILES



INVENTOR FILES



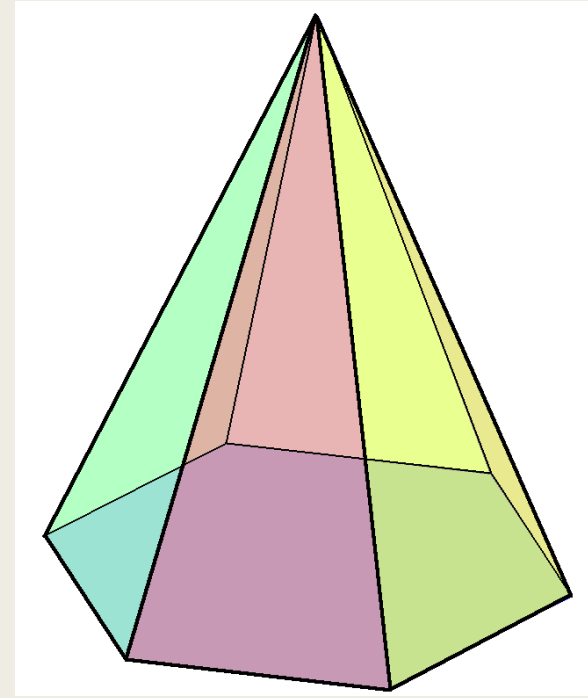
PHOTOS OF  
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PRESENTATION



REFLECTION



# INSPIRATION

- I wanted to work with geometric forms, and I chose triangles because to me they are the most interesting ones. I was also really intrigued by pyramids and thought they would be fun to work with.

# DESIGN PROCESS



Sketching ideas



Mock-up



Inventor



CAD



Laser Cut



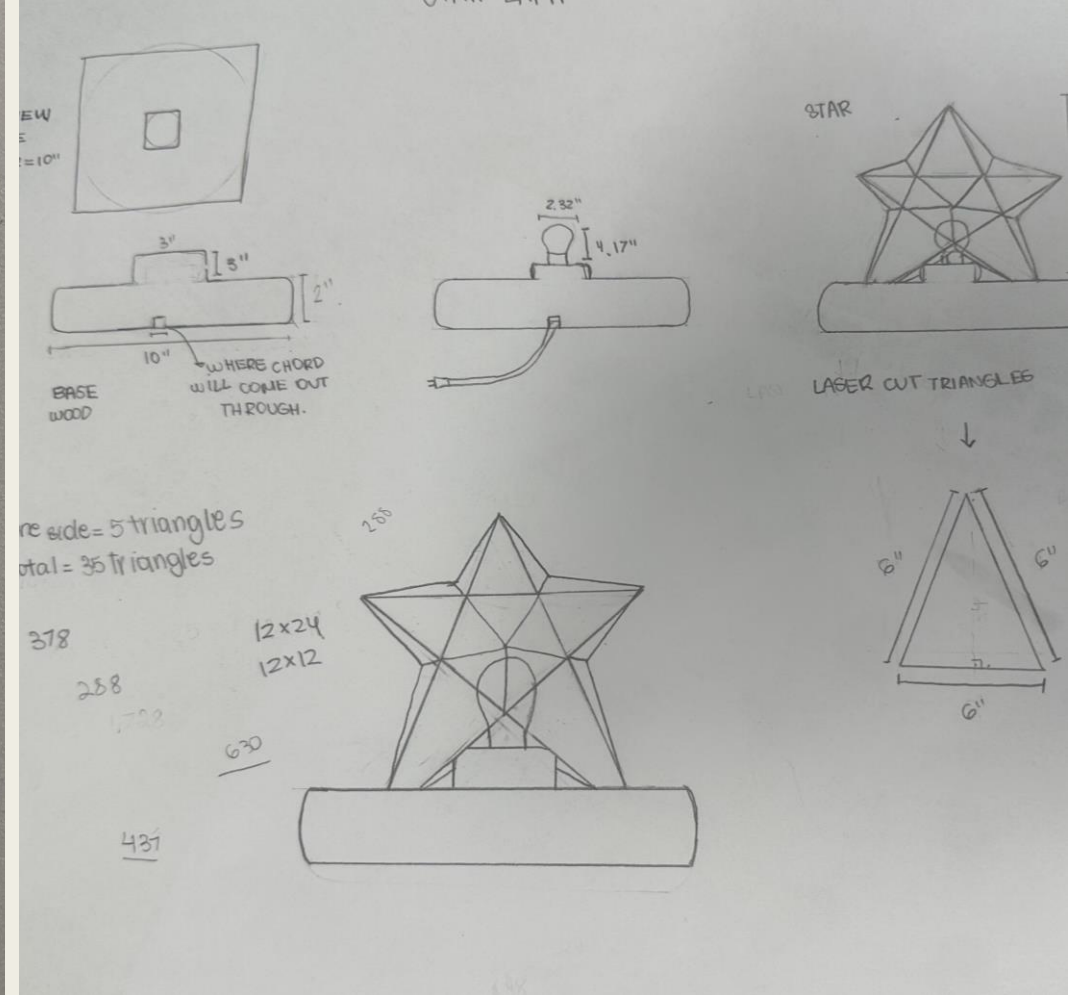
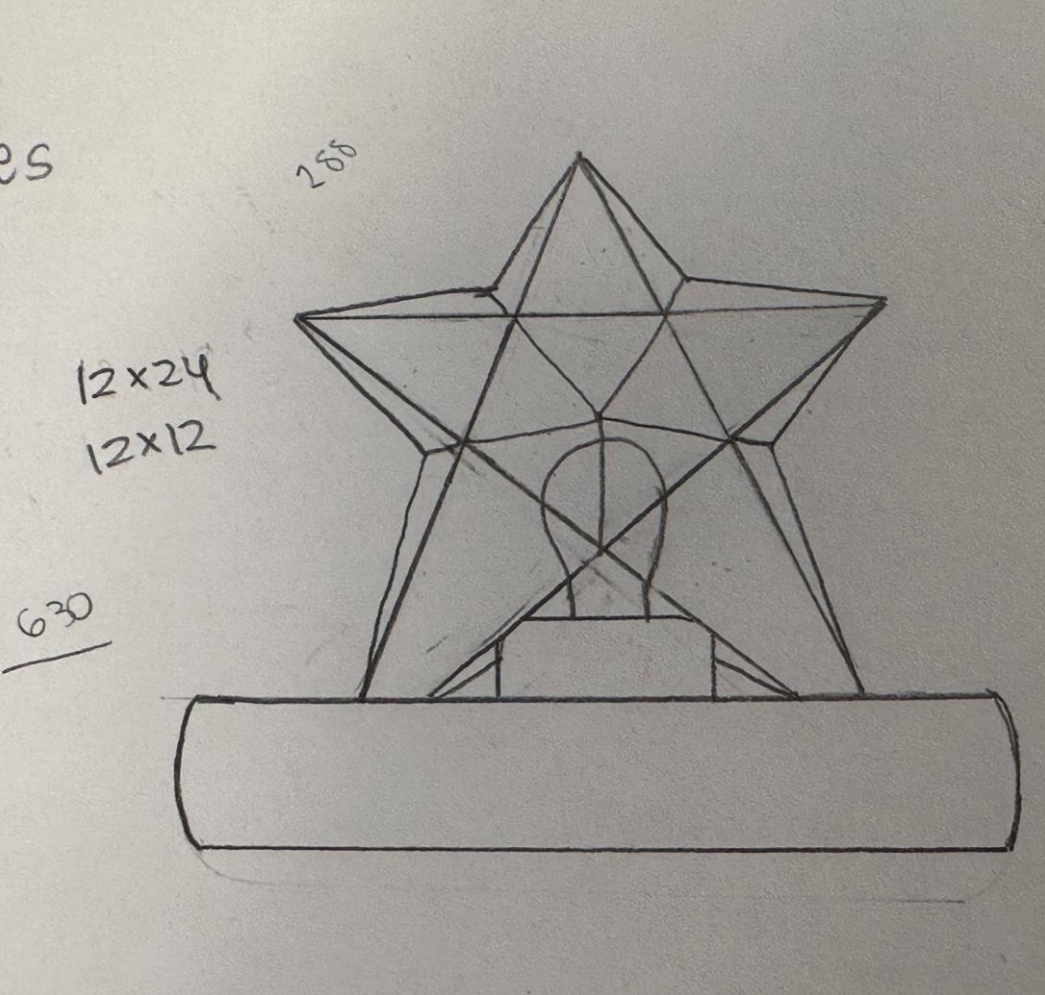
CNC



Assembly

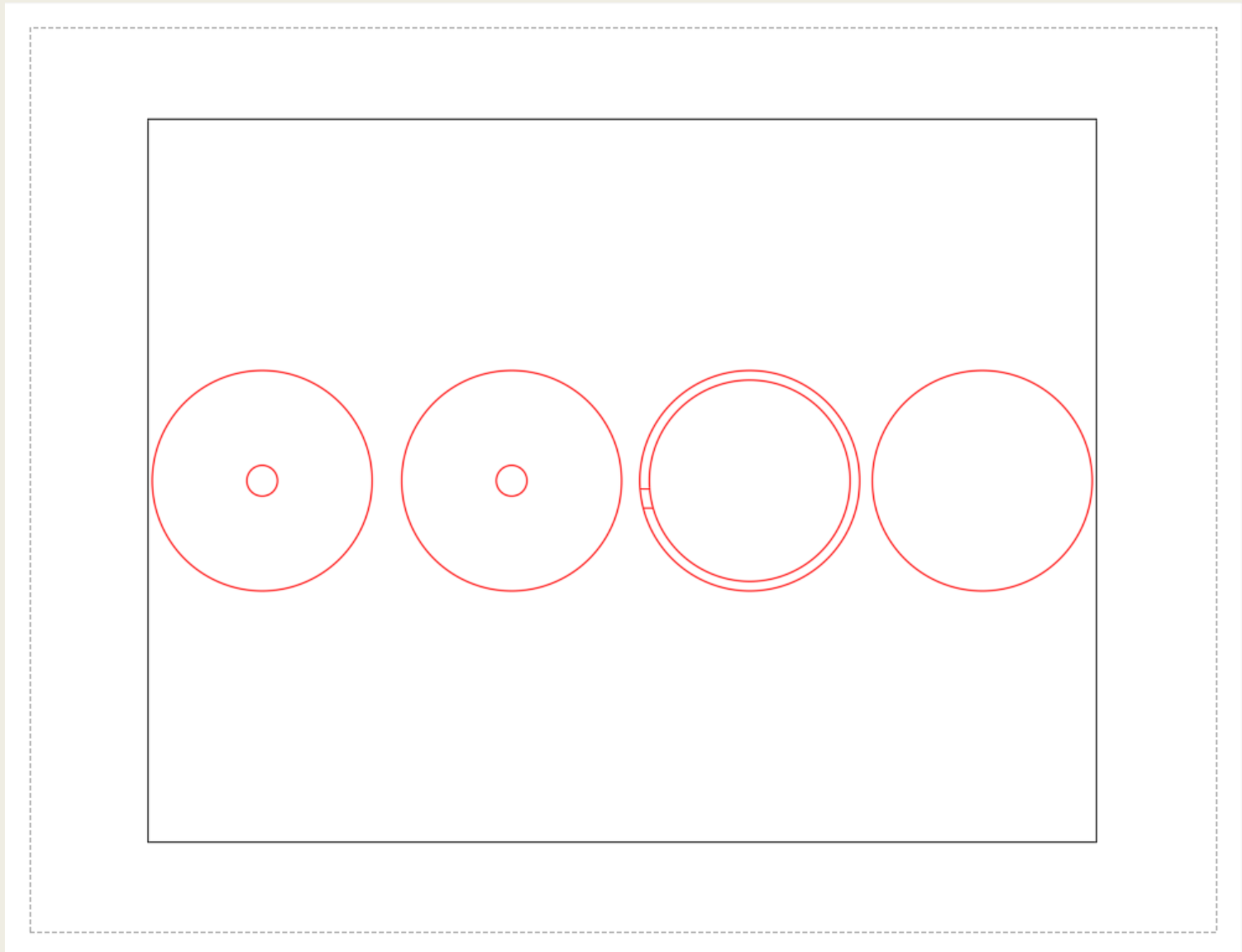


Presentation

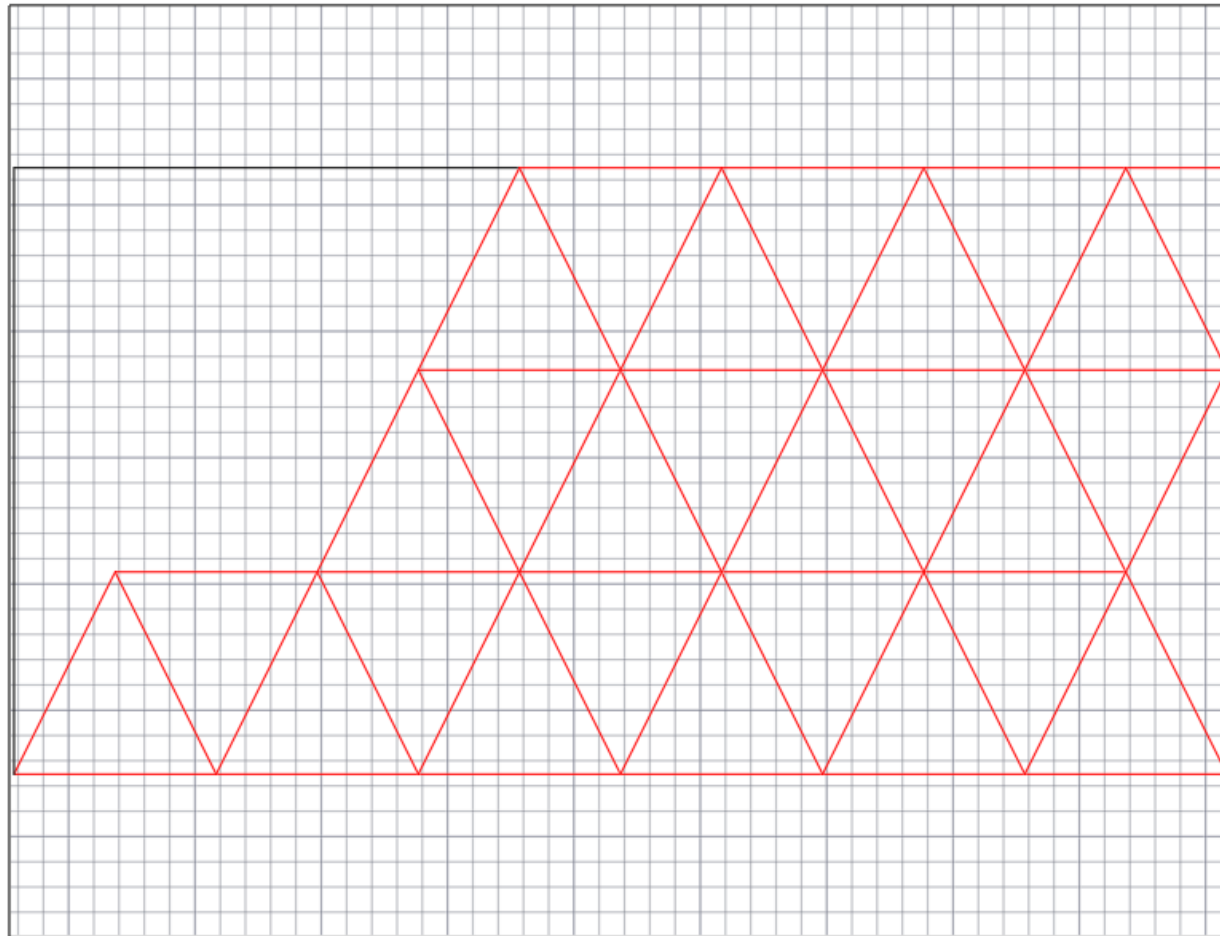


# SKETCHES

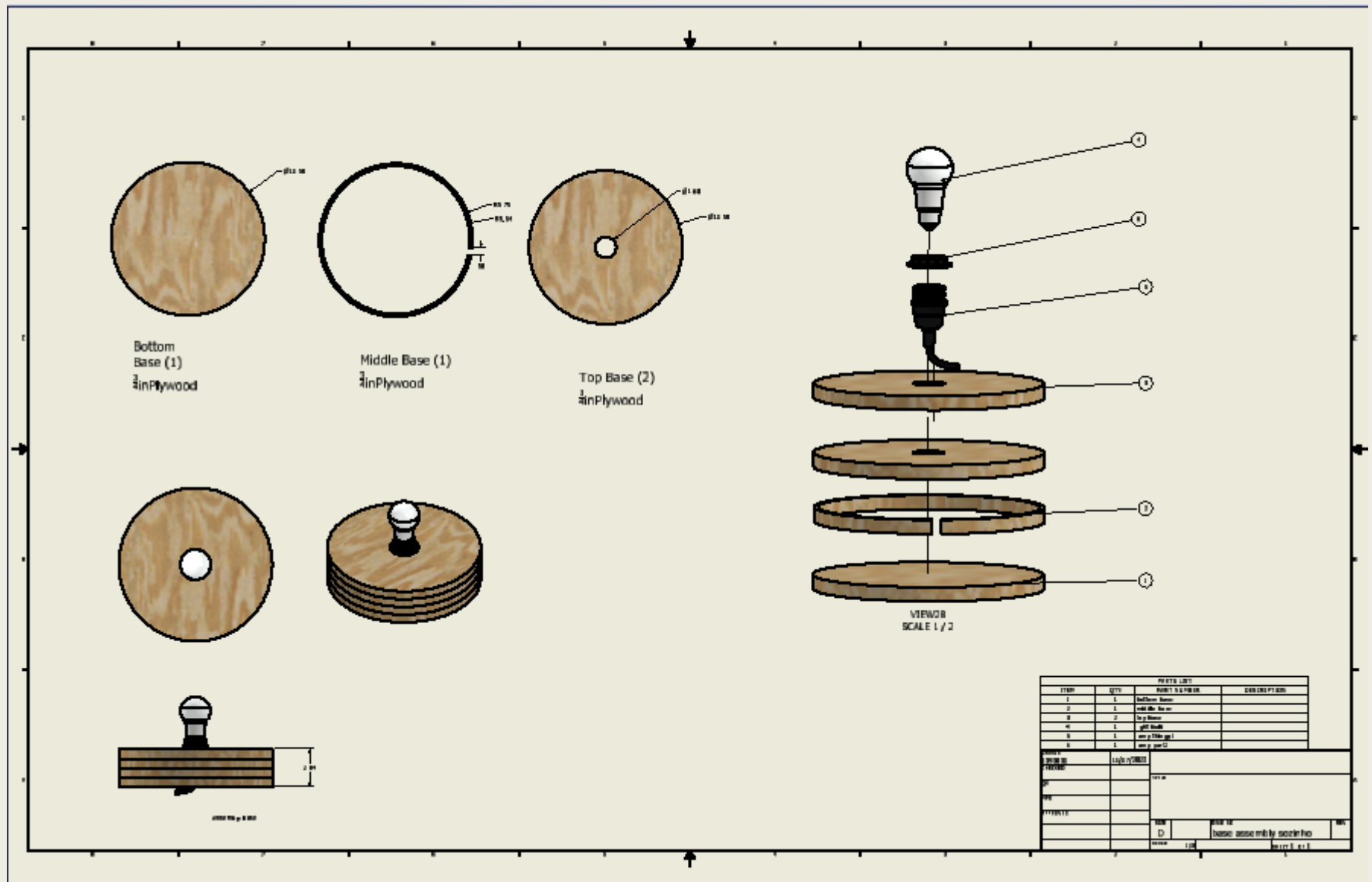
# CAD/CAM FILES — CNC BASE (PLYWOOD)



# CAD/CAM FILES — ACRYLIC TRIANGLES



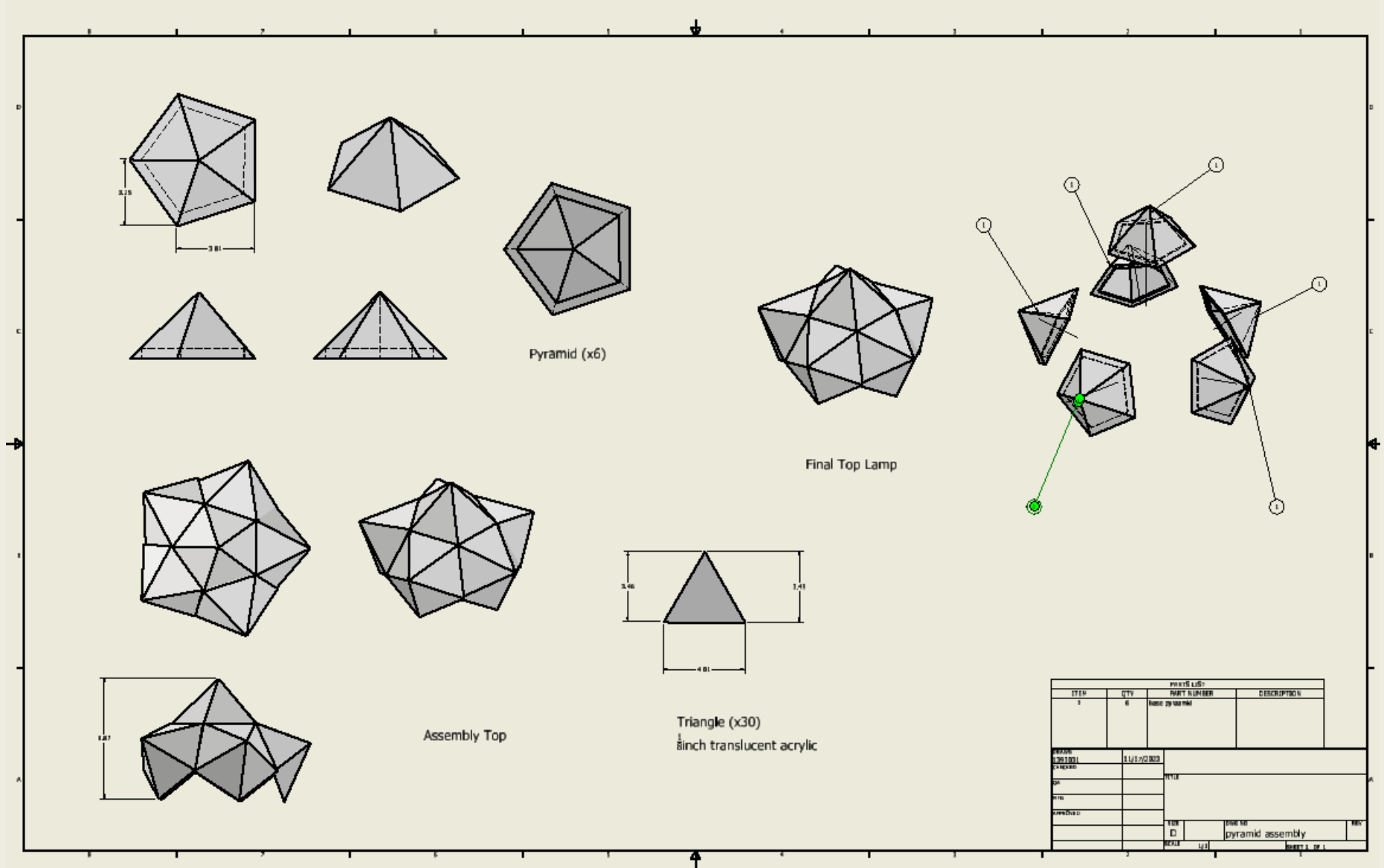
# INVENTOR FILES



Base, Light Bulb, and Lamp Parts 1&2

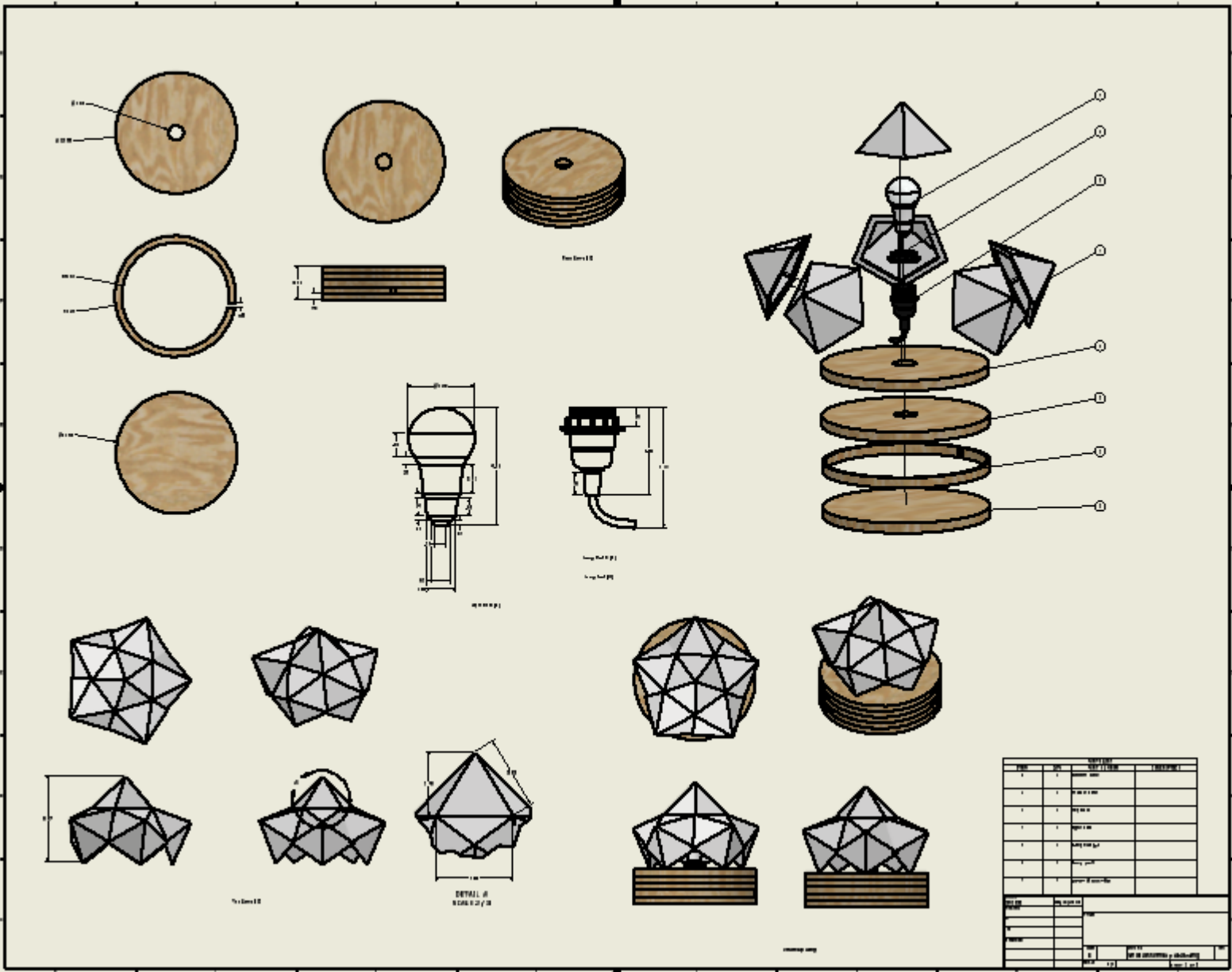


# INVENTOR FILES

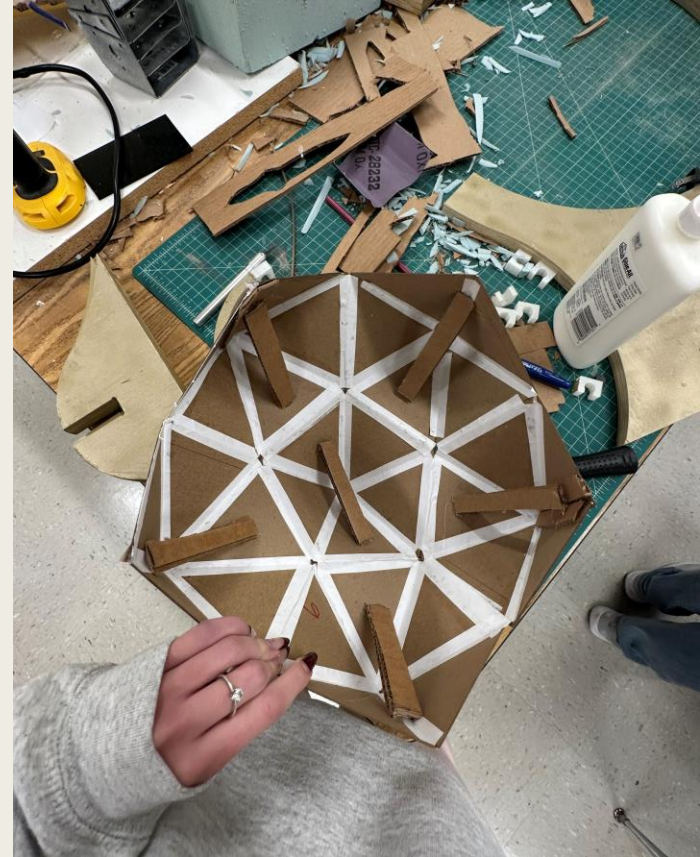
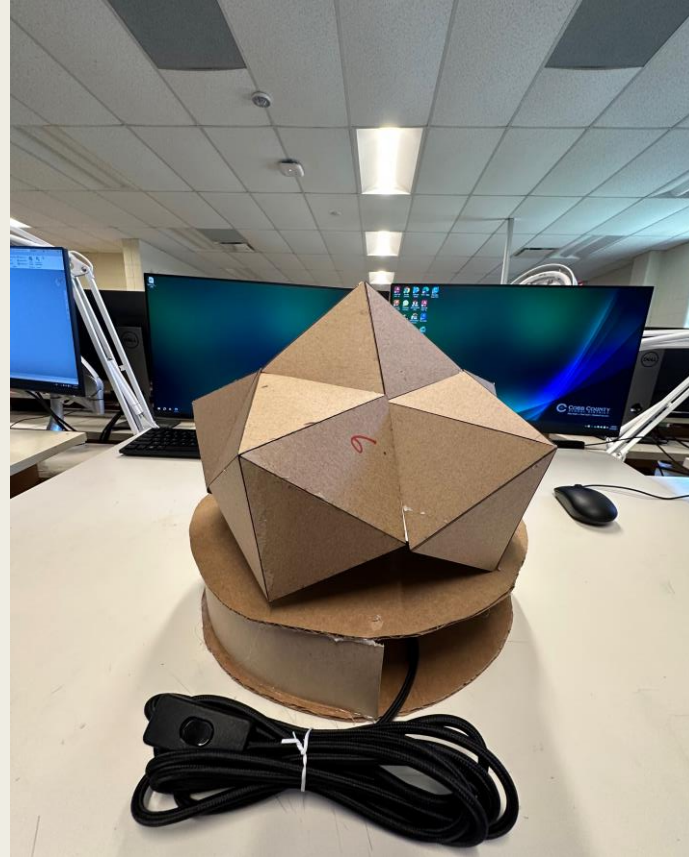
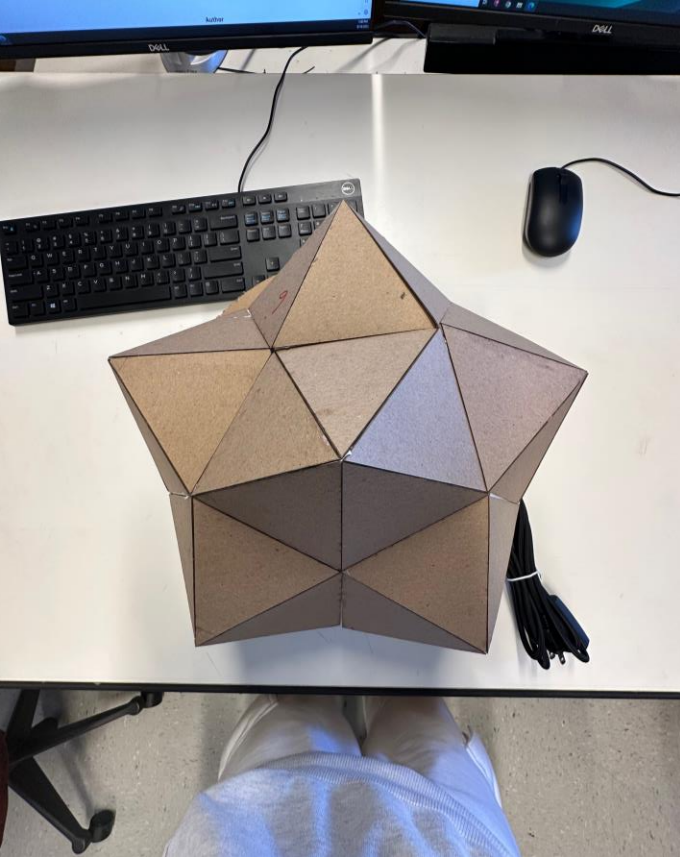


Top Lamp Parts

# INVENTOR FILES

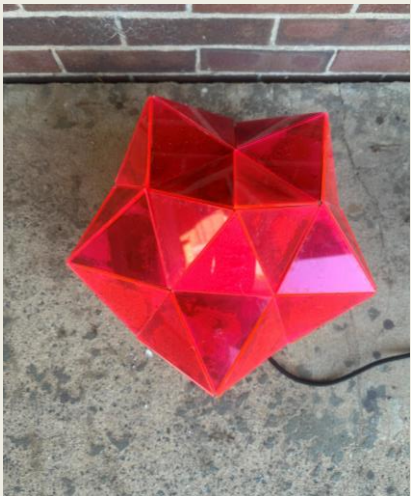
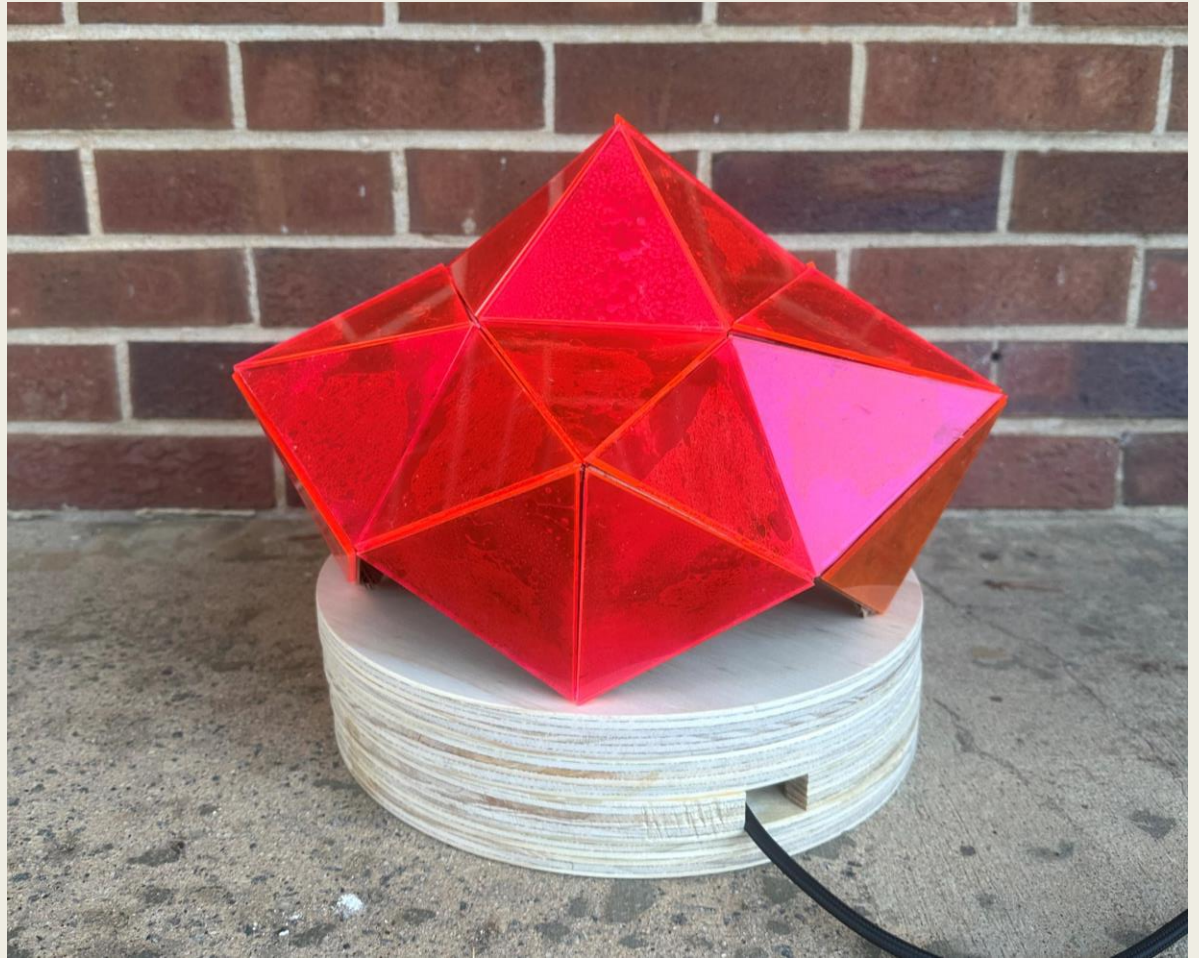
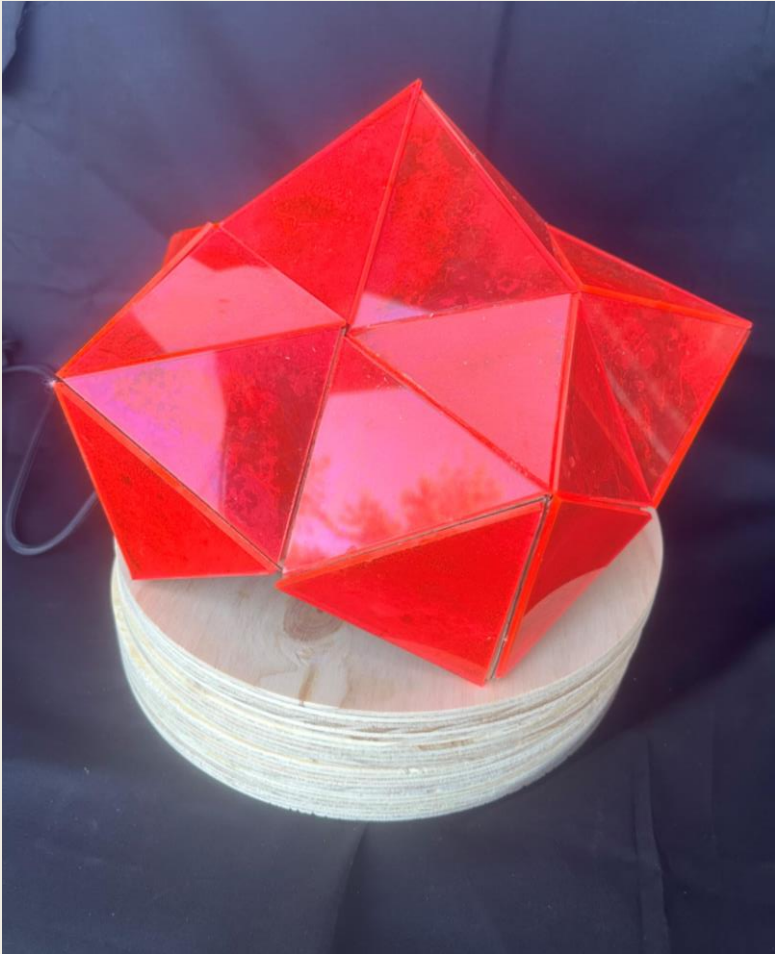


Final Assembly



# DESIGN PROCESS

MOCKUP



FINAL PRODUCT

# MATERIAL/HARDWARE LIST

Material	Cost
(1) Red Acrylic sheet	\$15.40
(1) Plywood	\$34.83
(1) Cardboard Sheet	\$15.00
(1) Bottle of glue	\$4.00
(1) Lamp Cord	\$5.33
(1) Bottle of Wood Glue	\$3.59
(1) Lightbulb	\$0.95
CNC	\$80.00
Laser Cutter	\$20.00
(2) Packages of sandpaper	\$5.00/each
(1) Adhesive Spray	\$10
Total	\$199.10

# LABOR TIME

Labor	Time
Design Time	5 hours
Inventor	20 hours
AutoCAD	2 hours
Material Planning	2 hours
Gluing	3 hours
CNC time	2 hours
Laser Cutter Time	1/2 hour
Sanding	2.5 hours
Total	37 hours

# COST CALCULATION

- Labor Cost:

37 hours X 45 dollars per labor = \$1,665.00 Labor Cost

- Total Cost:

199.1 Material Cost + 1,655 Labor Cost = \$1,864.1

- Price with 40% Gross Profit:

\$1,864.1 X 1.4 = \$2,609.74

# REFLECTION

I learned a lot from this project. The designing and Inventor parts were my favorites because I am used to doing so. Making the lamp was hard for me because I had never done anything like it before. The hardest part was working with the CNC and figuring out angles on Inventor.

The lamp did not turn out as I wanted it to. Now that I have learned from it, I feel that if I could re-do it, I could get it as I had first imagined it.