Tripod Lamp

Spring 2021
Materials and Processes I
Professor Phil Armstrong

Design Brief

A lighting object produced to explore joinery and conventions of interaction.

This five foot lamp, made of ambrosia maple, boasts the ability to break down completely, with no tools, for flat packing. It features wireless remote control lights and a dowel system allowing for the height of the light housings to be adjusted. The Tripod Lamp was initially conceived out of a rapid prototyping exercise in a model making course, developed further through CAD and the resulting full scale prototype, and was finally produced as functioning furniture for my Materials and Processes I final project.

Initial Conception

This small conceptual model is a result of a rapid prototyping practice in a model making course. Students were given a limited materials library and 10 minutes to create a representation of a lighting object of their design.

This models is made with 1/16” dowels, card stock, foam core, toothpicks, and hot glue.

Scale Model

This full scale model was created out of big box pine 2”x4”s.

Creating this model allowed experience in how the final production would be cut, shaped, and fit together.

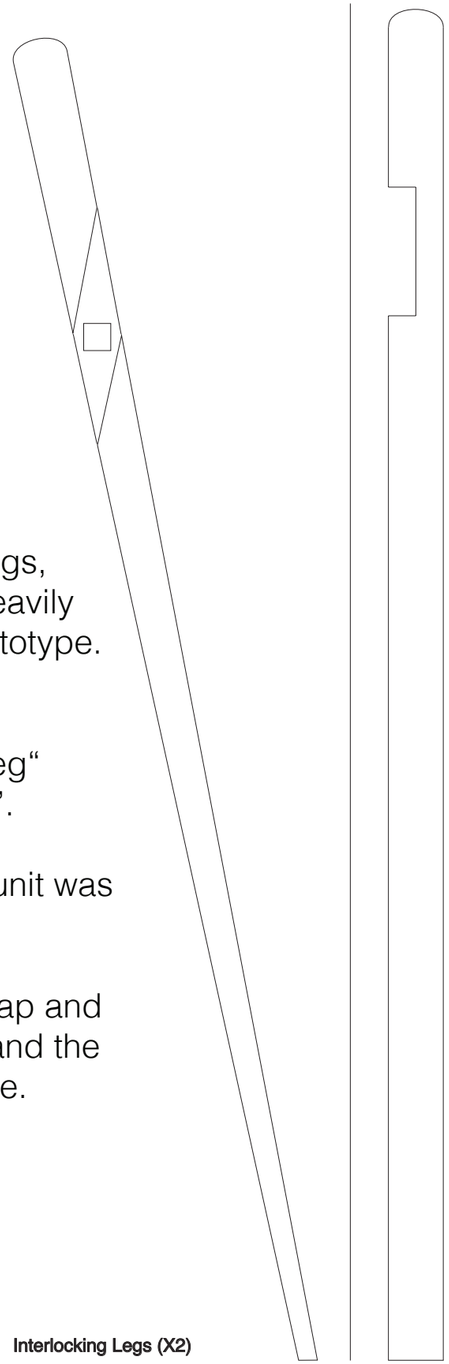
Engineering

These are the final drawings, both altered and referenced heavily during the build of the final prototype.

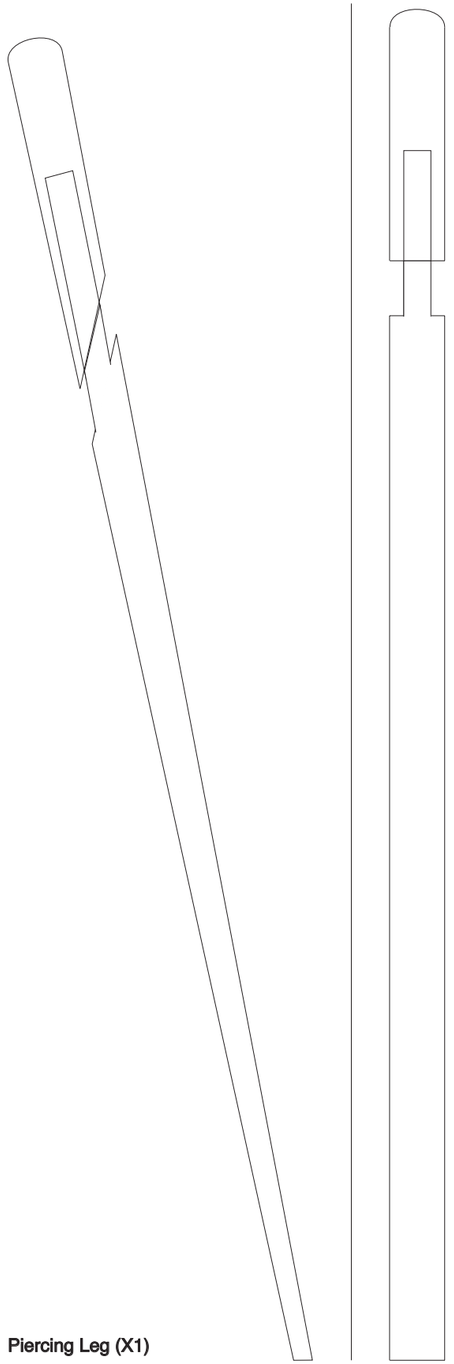
A dowel was used rather than continuation of the “Piercing Leg“ through the “Interlocking Legs”.

Only one size of light housing unit was created.

The thickness of the housing cap and surrounding changed slightly and the cap changed to match in shape.

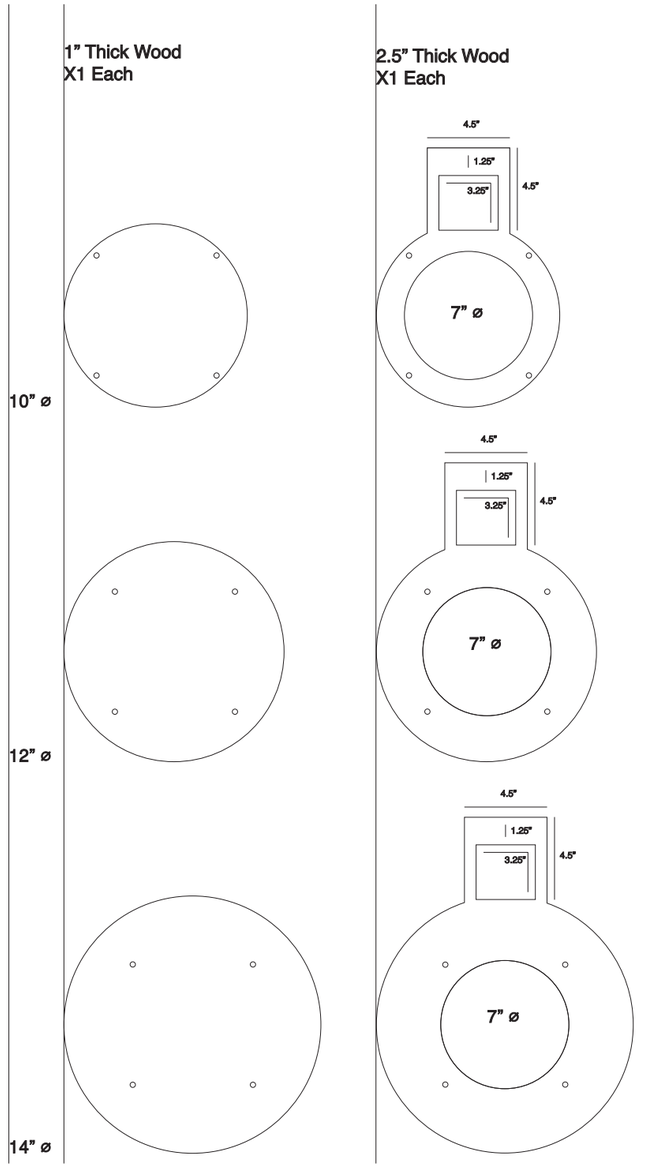


Interlocking Legs (X2)

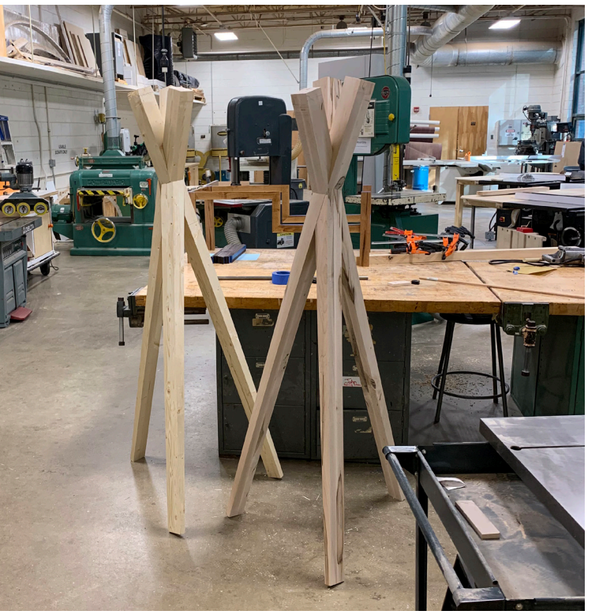


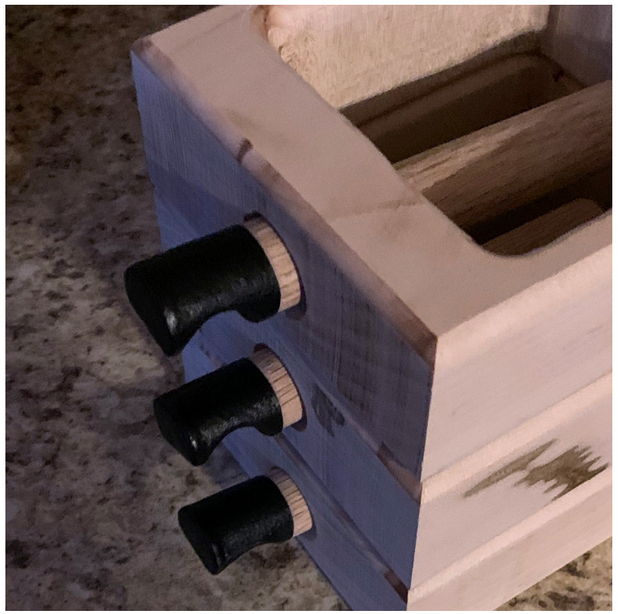
Piercing Leg (X1)

1”
6”
1’



Building Processes





Pictures of the steps and procedures leading to the Tripod Lamp being a finished prototype.

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Final Prototype


KnollTextiles