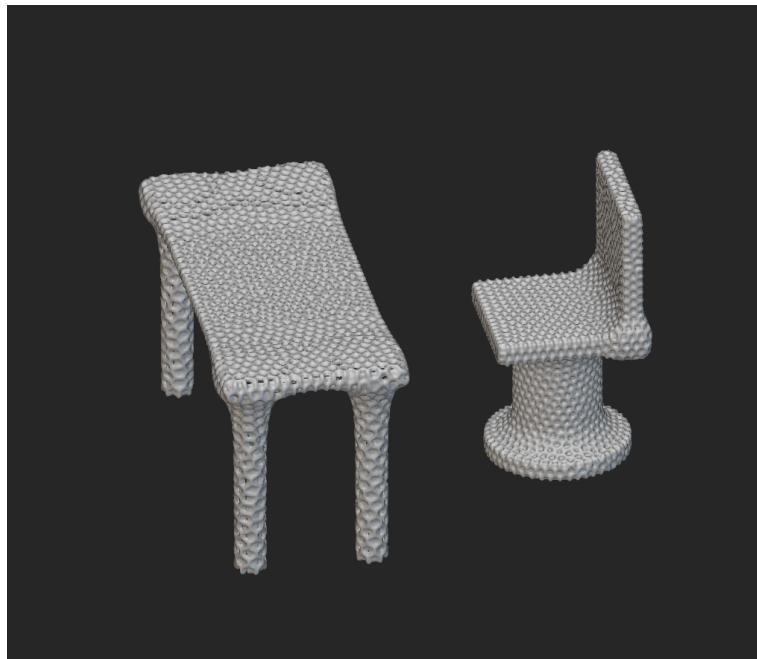


DIGITAL MANUFACTURING

Topology Optimization



Name : Simon Kang (hk3234)

Instructor: Prof. Hod Lipson

Table of Contents

1. Result & Methods Summary

2. Appendix

1. Results Summary

1.1 Final CAD model in Solidworks

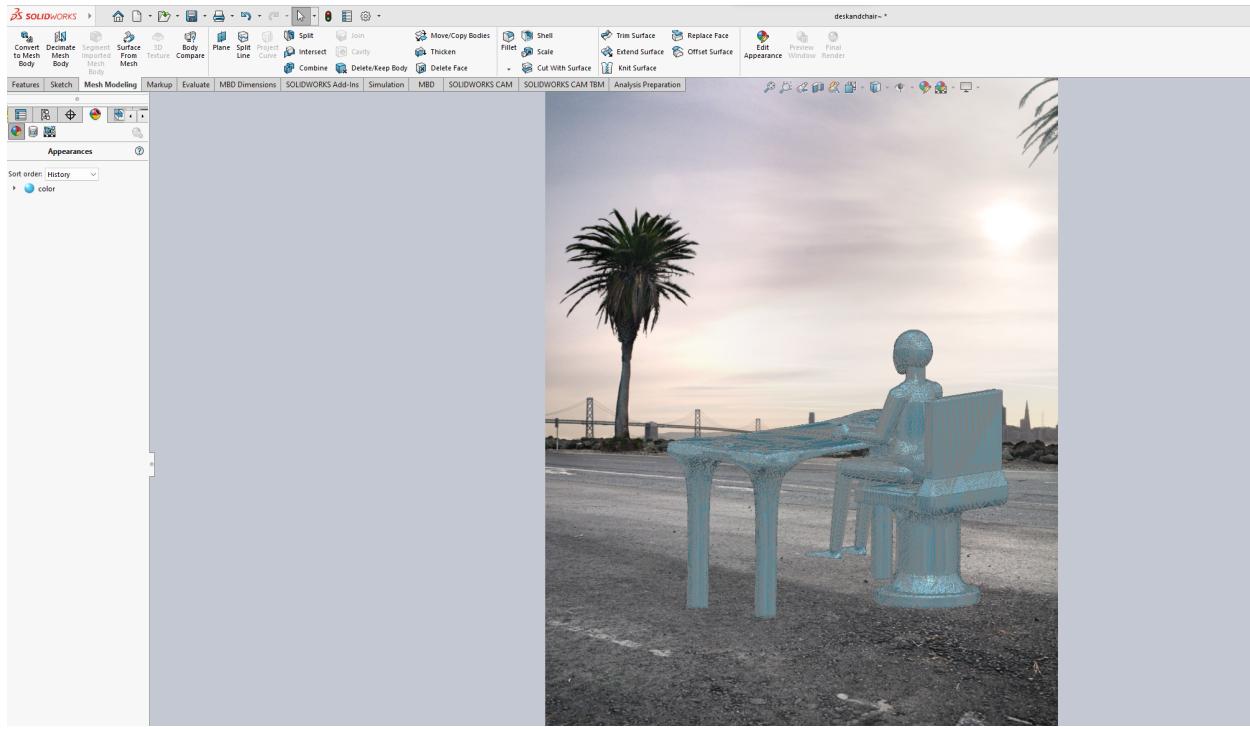
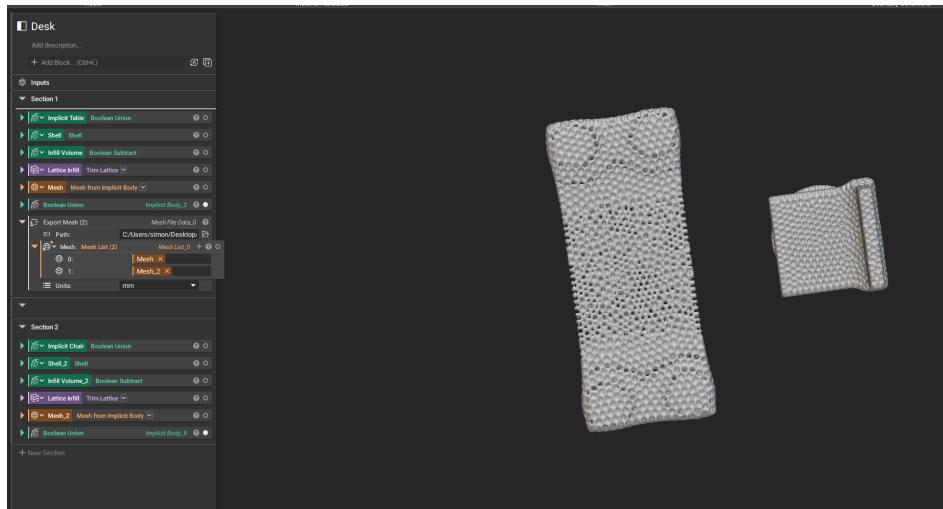


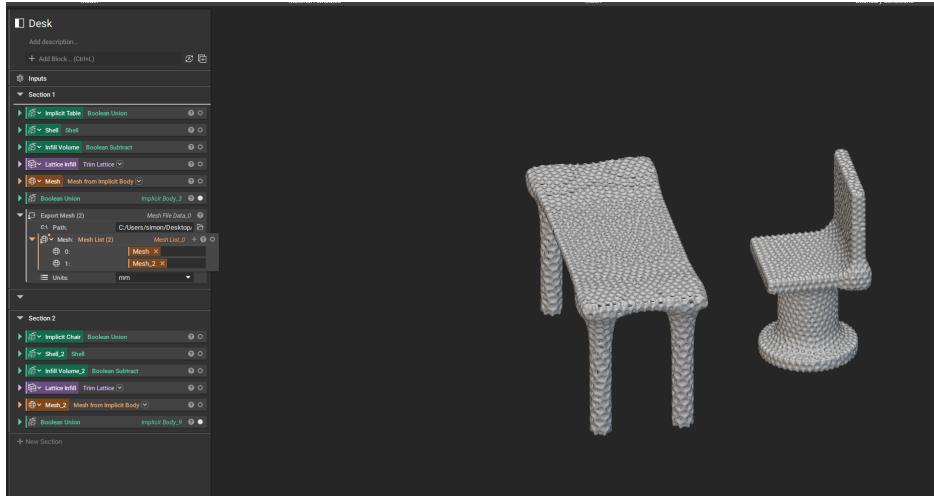
Fig. 1. Photo realistic context, person sitting

1.2. Modeling in nTopology (Three screenshots of both Desk & Chair)

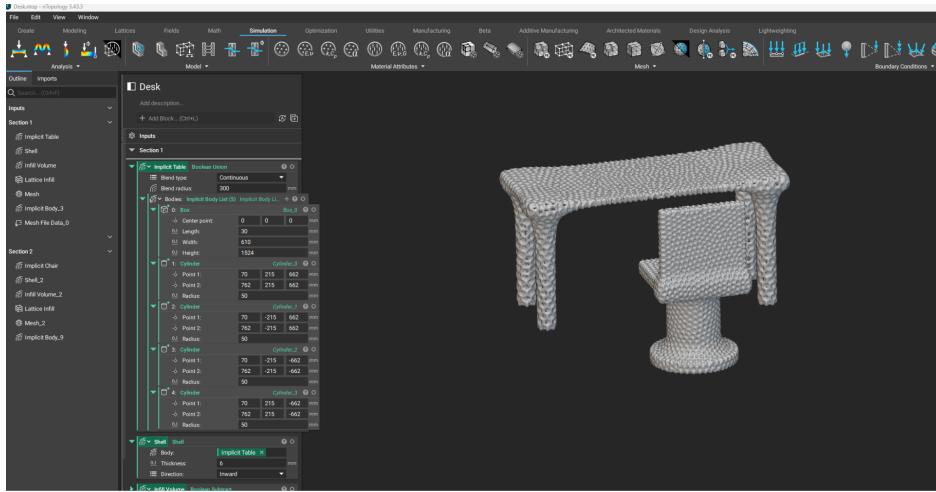
Top View (Desk & Chair), Lattice structure is used



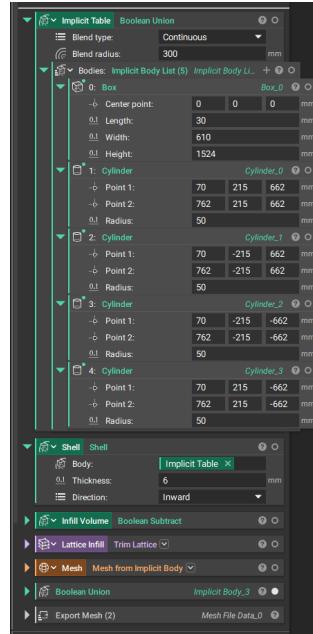
Side View



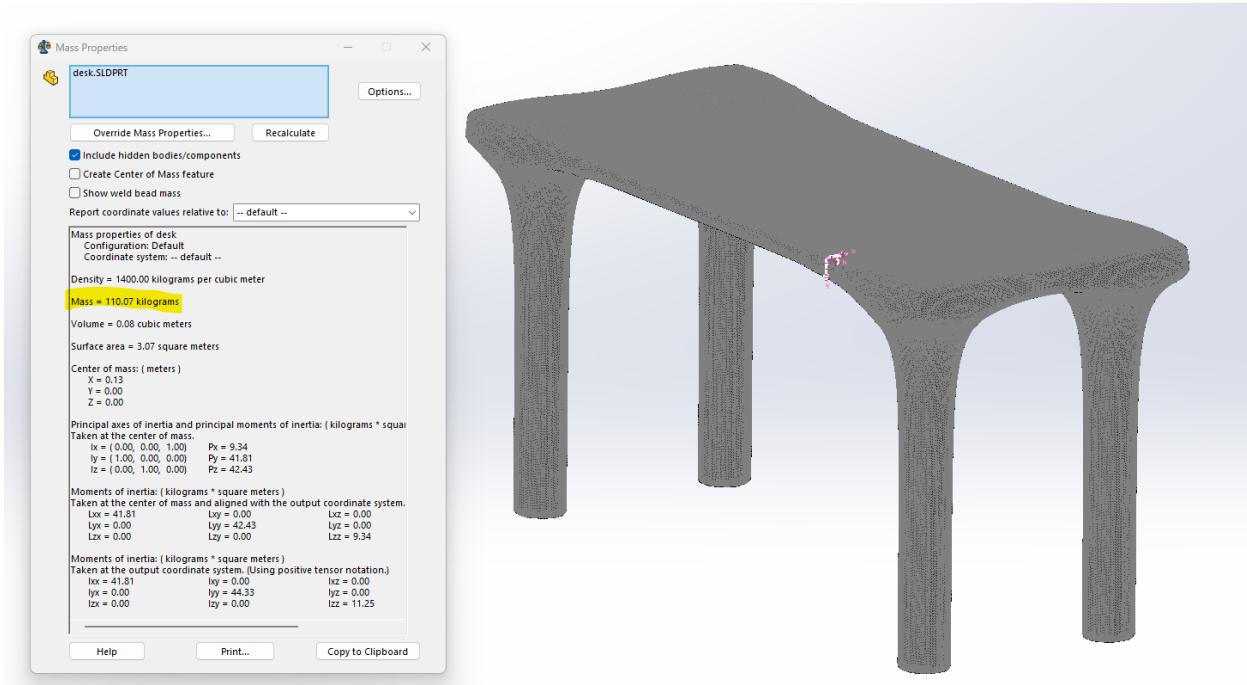
Back View (Specifications of Dimensions)



1.3. Dimensions & Weight for the Desk

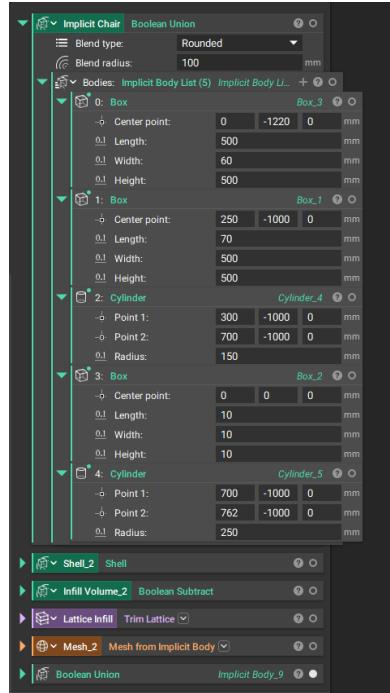


Reasonable specifications described in a diagram

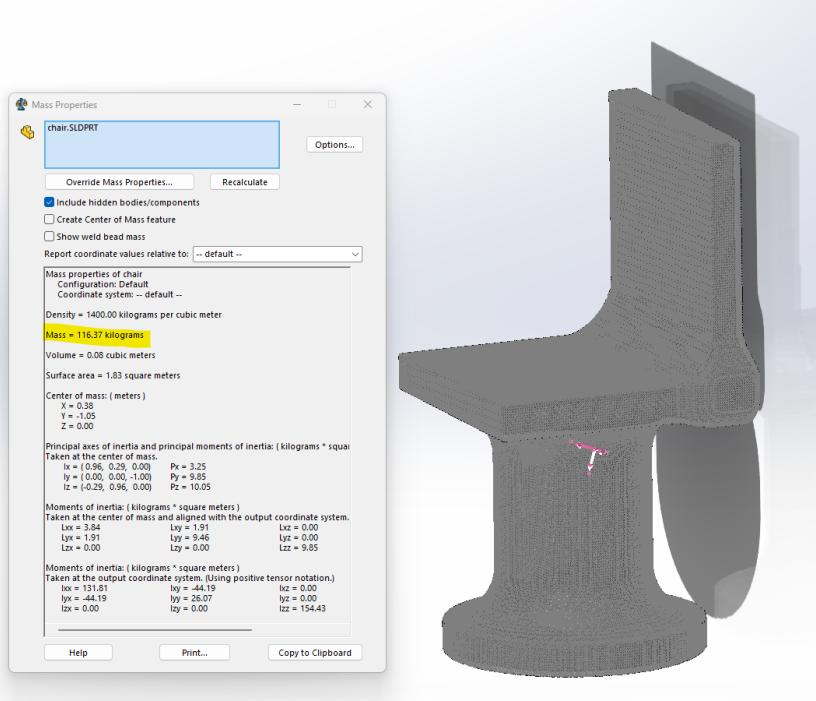


Material set as Plastic (Nylon), Desk weight = 110.07kg

1.5. Dimensions & Weight for the Chair

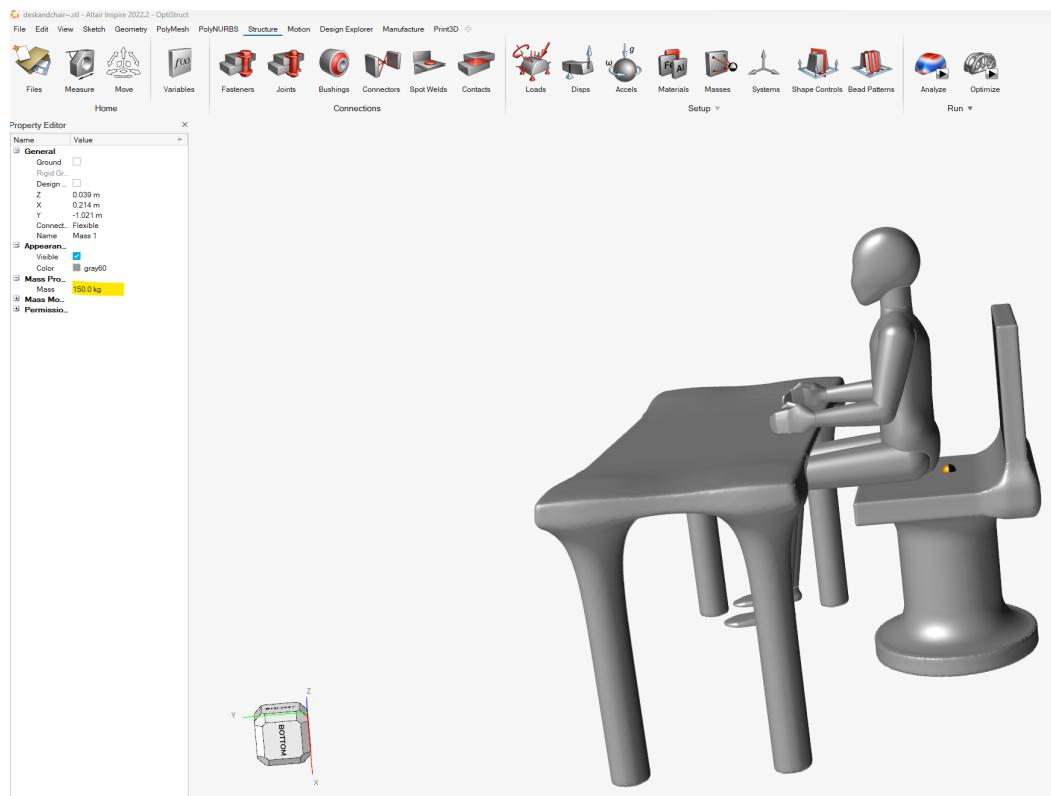


Specifications



Material set as Plastic (Nylon), Chair weight = 116.37kg

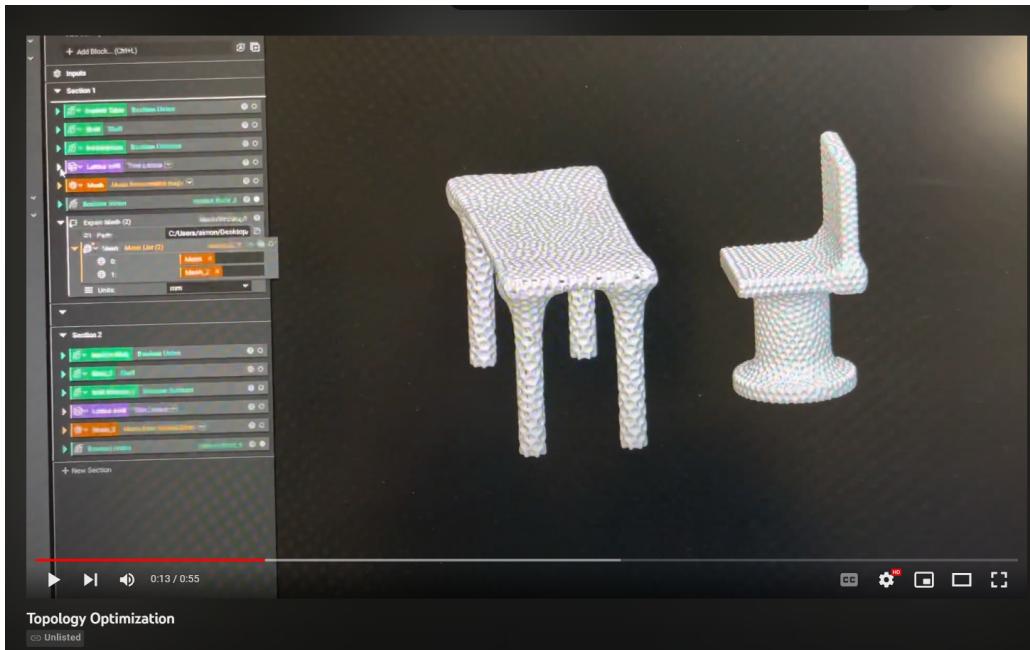
1.6. Exported back to CAD (Altair Inspire)



2. Appendix

2.1. Video Link (Youtube)

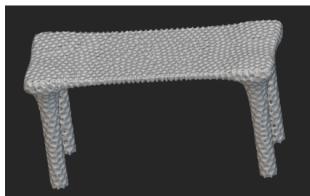
<https://youtu.be/asqrOR7zsw8>



2.2 Pre-submission of a desk a week before deadline

DIGITAL MANUFACTURING
(MECE 4606)

Assignment #4, Topology Optimization
Pre-submission



Name : Simon Kang (hk3234)

Instructor: Prof. Hod Lipson

Date Submitted: 3/24/23
Grace hours used: 0
Grace hours remaining: 350

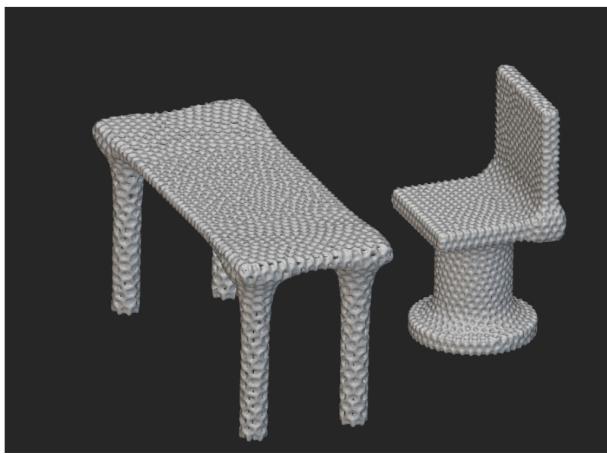
2.3 Desk and chair photo posted on Ed

Desk & Chair on nTopology #316



Simon Kang
Now in Assignments - A4

★ STAR 1 WATCHING VIEW



Comment Edit Delete ...