

# 2-in-1 meal tray + laptop desk

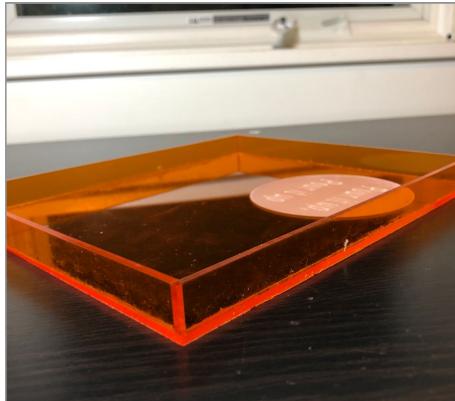
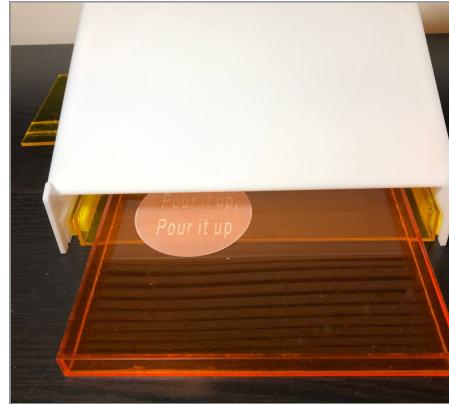
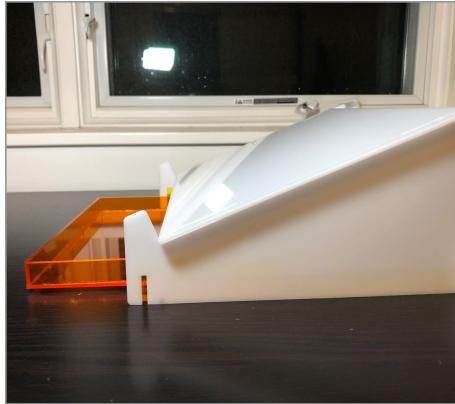
S. Jobanputra

# Problem Identified

It's **hard to multitask (work + eat or work + use a mouse)** at the same time // there is no space on my laptop desk



# Solution: 2-in-1 laptop stand + meal tray



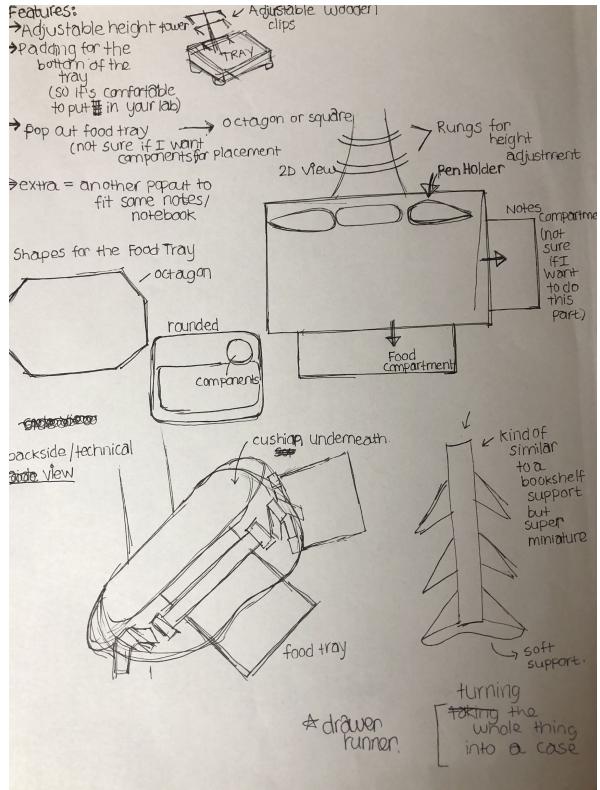
## Strengths:

- Compact
- Color Coded
- lefty mouse holder

## Weaknesses:

- Heavy
- May not be comfortable for the lap

# Ideation



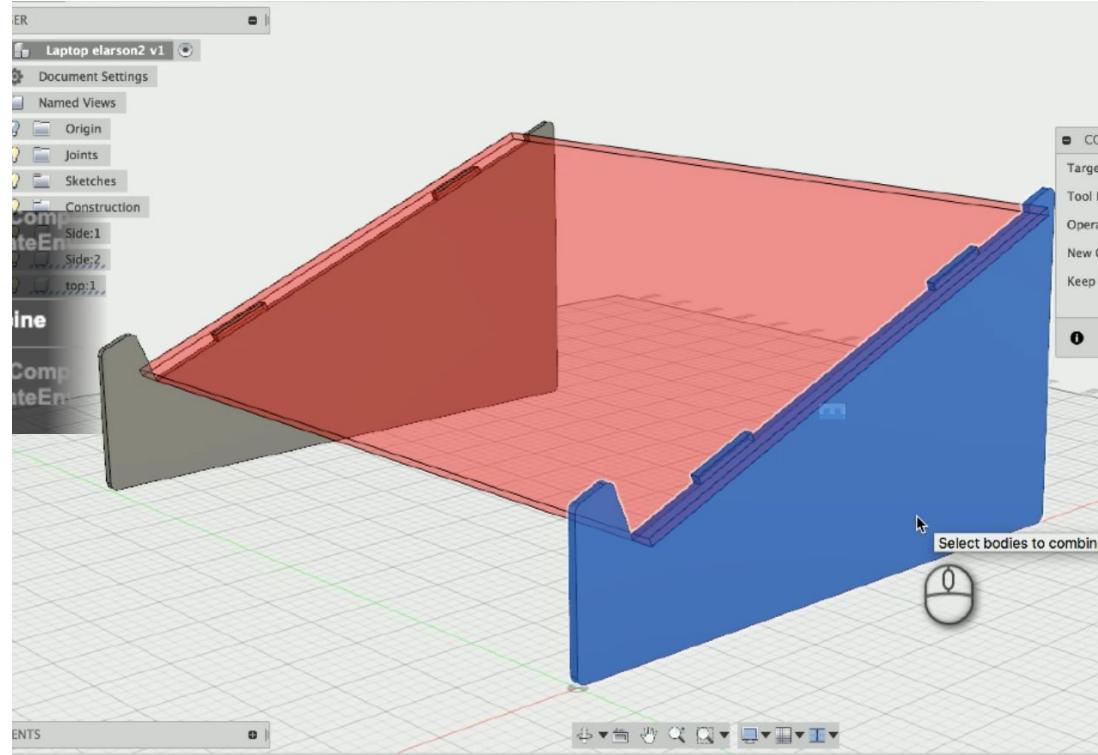
Initial Sketches



Cardboard Prototype

# Inspiration

(Link: <https://pin.it/SMbUx5R>)



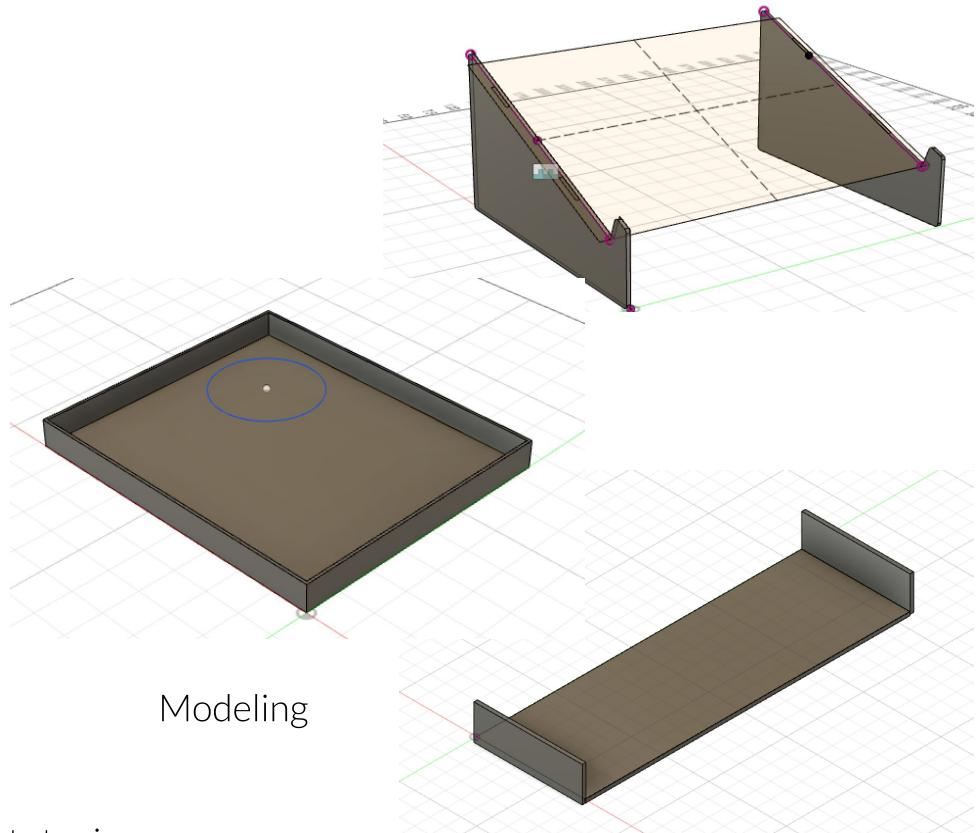
# Prototyping + Modeling



My original idea of a rounded top did not work well - it made things slide down the surface, which is why I pivoted to having something similar to the laptop holder assignment in class

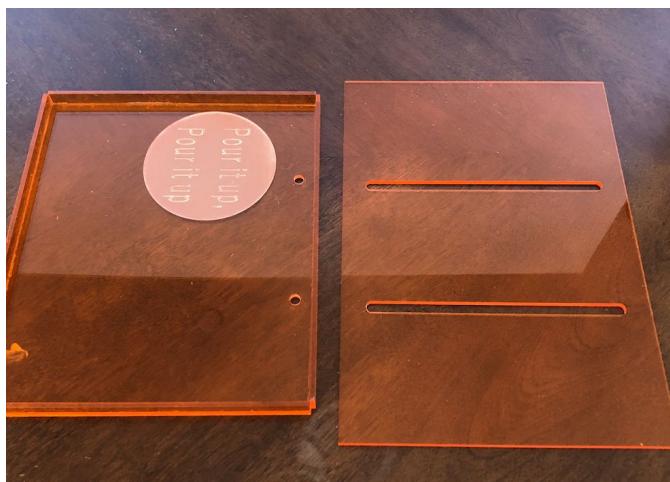


Prototyping



# Etching

Inspired by one of my favorite singers,  
Rihanna!



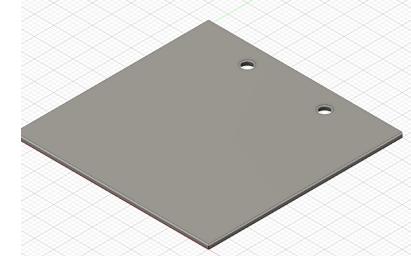
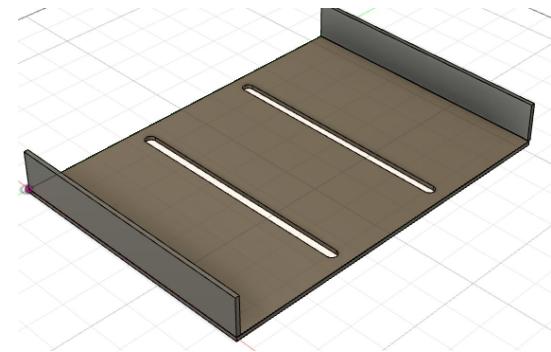
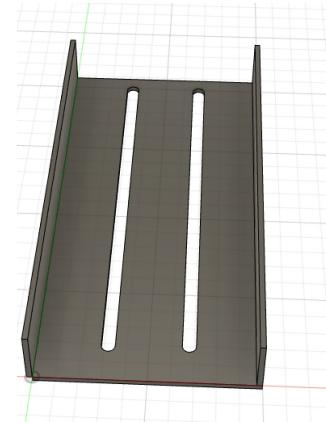
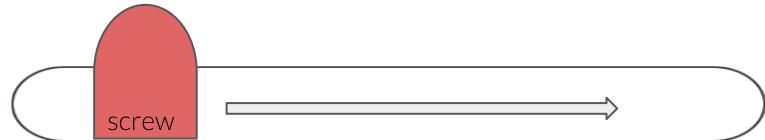
# Laser Cutting Iteration One

## **Opportunities:**

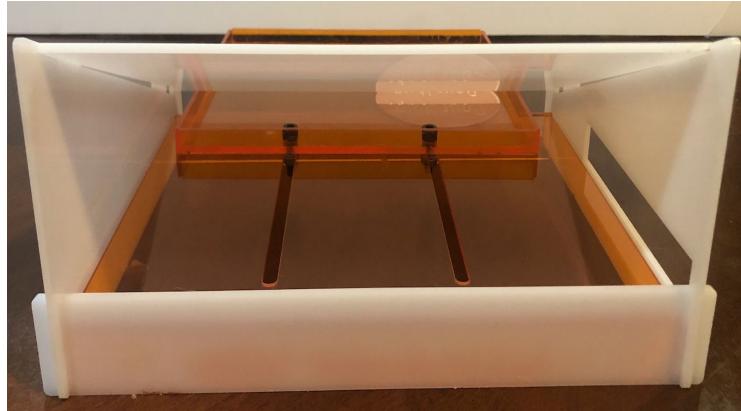
- In my initial prototype I used additional cardboard as a support underneath the meal tray and mouse holder, however that didn't translate well to acrylic and made it hard to use the tray + laptop holder at the same time
- I decided to find new ways of integrating the two pieces, along with elevating the meal tray so it's not sitting on the ground (same for the mouse holder)

# Idea: Creating Slots!

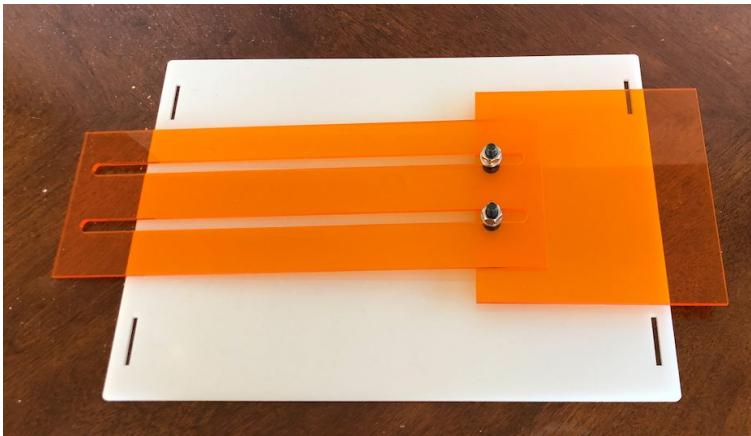
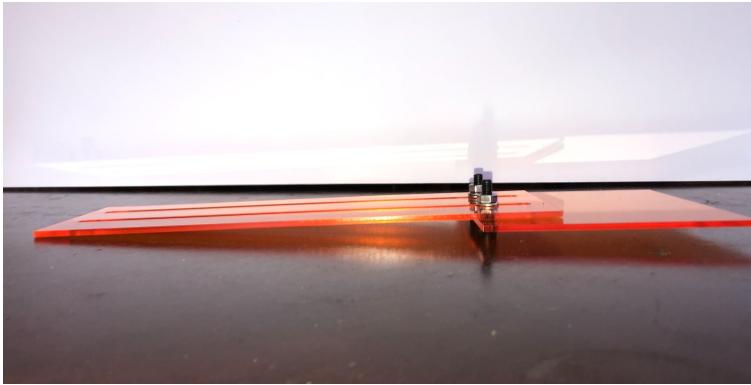
- use a screw and create a slit to be able to **slide** the tray + mousepad
- make it less heavy/more comfortable to place on the lab

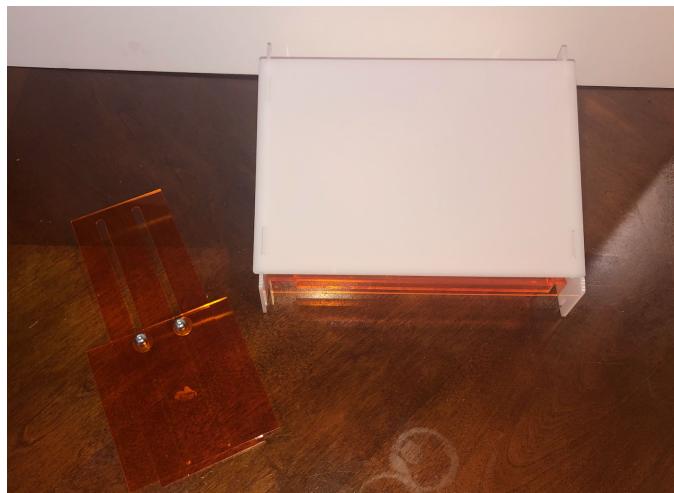
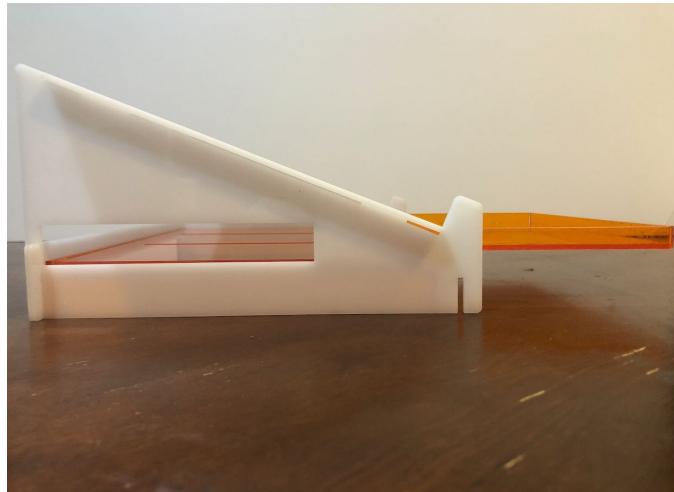


# Adding Slots: Meal Tray



# Adding Slots: Mouse Holder





# Reflection

## Unexpected Challenges

- even laser cutting what seems a simple box takes additional **time**
- 3d modeling multiple parts is **hard to integrate**

## Lessons Learned

- make use of other **tutorials**/starter materials
- thorough modeling and measuring** helps with more efficient laser cutting (need to keep working on this)

## Next Steps:

- improve my confidence with modeling independent of tutorials // working more in fusion 360
- make prototype less heavy/more comfortable to place on the lab
- using screws caused the mouse holder to not fit into its hole** - I need to increase the size of the hole for things to all fit underneath the laptop holder!

# Reading Reflection

## **A participatory design/social design process -**

- stepping into the shoes of a user
- being able to bounce ideas off my peers to better understand needs

**Rapid prototyping** - There were several phases to the prototyping process → sketching and prototyping → modeling and 3D rendering → laser cutting something. Iterating upon my design as I went through different stages of fidelity helped ensure that my design choices were thorough + thoughtful

## **Prototype Testing -**

- 3D rendering and laser cutting took time to master for me
- seeing the tangibility of my project after a laser cut helped with assessing quick ways to make changes

Thanks for an amazing semester Jayla + Jess! I have learned so much --