

Part Modeling and Synthesis

ME 170 CADLAB#4 and TEAMPROJ#3

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UIUC

Fall 2022



A reminder:

- Office Hours (MEL 1009):
 - Tuesday Noon-1PM (Before Lab)
 - ~~Wednesday 9-10AM~~ Canceled this week
 - Rescheduled - Tuesday 10-11AM (9/20 only)
- CADLAB#4
- Monday - TEAMPROJ#2 and 3
- Tuesday - TEAMPROJ#3

If you have questions on CADLAB, you should plan to visit office hours - email is not an effective way to solve issues with CADLAB problems.



Catching Up Monday Sections

MONDAY ONLY

- I want to get the Monday sections back on track with the other sections.
- I am “combining” TEAMPROJ#2 and 3 as I think they go well together.
- The new due date for both TEAMPROJ#2 and 3 is 10/2 (Sunday) at 11:59PM.
- Be aware that we start TEAMPROJ#4 next week and that is due 10/5 - Don't wait!
- I encourage you to start early and if you want feedback on TEAMPROJ#2 prior to working on 3, please ask me.



- CADLAB#2
- CADLAB#3 – Multi-Step Part Modeling (Due 9/21 Wednesday - Everyone!)
- CADLAB#4 – Loft & Sweep Features (Due 9/28 Wednesday)
- CADLAB#5 - Creative Part (Due 10/5 Wednesday) - This is a more involved lab, so don't wait to start it!



Team Project Progress

- ~~TEAMPROJ#1~~
- TEAMPROJ#2 – Synthesis (Due 9/21 Wednesday)(Monday Sections 10/2)
 - Monday - Starting this week.
 - Tuesday - Due this week.
- TEAMPROJ#3 - Sketching (Due 9/28 Wednesday)(Monday Sections 10/2)
 - Everyone - Starting this week.
- TEAMPROJ#4 - Product Design Specification (PDS) (Due 10/5)



CADLAB#4: Loft & Sweep Features



This week's CADLAB continues with sketching and adding more complexity to your designs. You will learn about:

- Lofts
- Sweeps

I have no other advice beyond continue to pay attention to the details.



TEAMPROJ#2: Synthesis Space



- This week you will be conducting Synthesis portion of your Team Project
- I will briefly overview the slides.
- You will conduct activities with your teammates.
- Please ask questions if you need help!



TEAMPROJ#3: Sketching



Using your HMWs developed as part of Team Project Assignment #2, develop ideation sketches. These ideation sketches should:

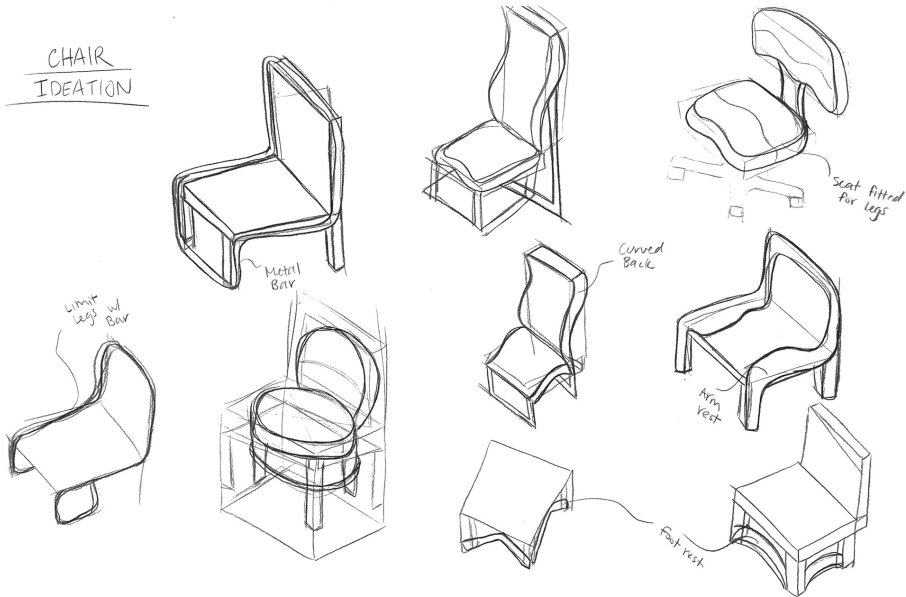
- Be on a single piece of paper
- Have multiple views
- Annotations of 1 - 5 words
- Clearly communicate the solution the HMW addresses
- Be signed and dated

Each team member should contribute at least one sketch. Scan or photograph each sketch.



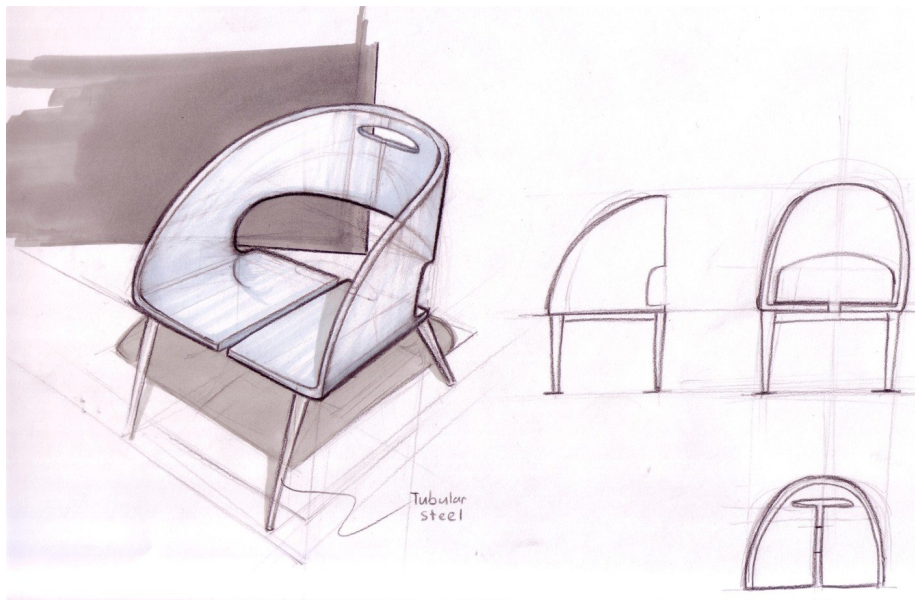
Ideation Sketching Examples

CHAIR IDEATION

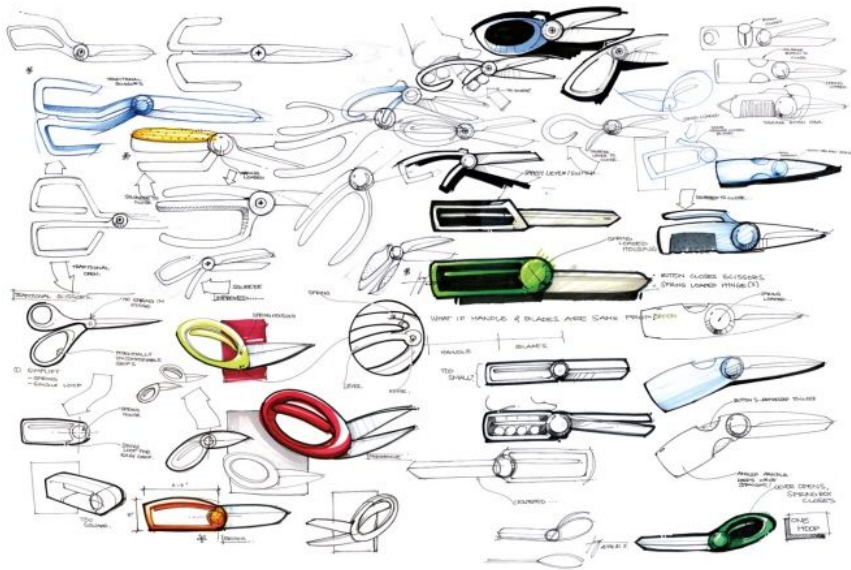


MALYSSA MAVETZ

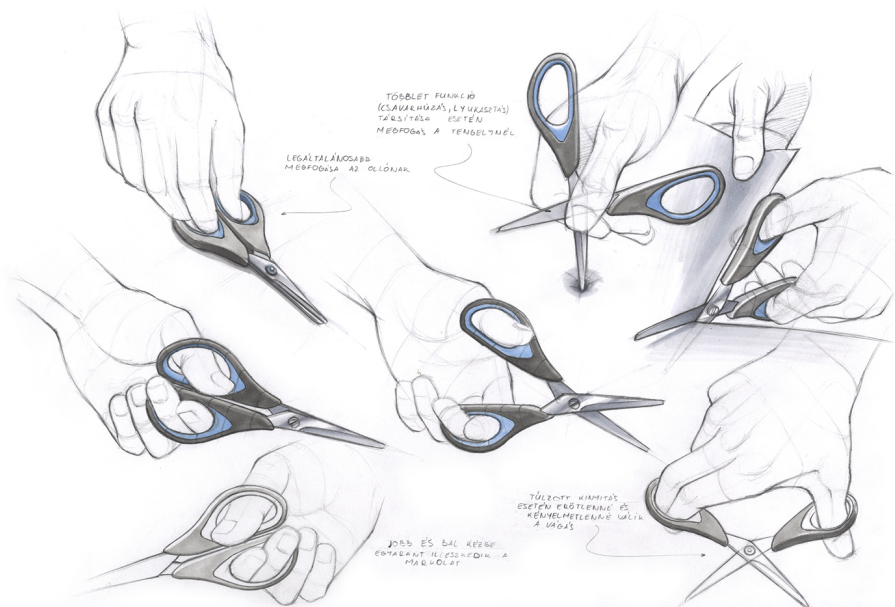
Ideation Sketching Examples



Ideation Sketching Examples



Ideation Sketching Examples



- Simple is okay. I don't expect masterpieces of industrial art.
- Focus on the "How might we...?" and not on a finished product.
- Help the viewer understand the concept.
 - Sense of scale
 - Use/Function
 - Shape
 - Configurations
 - Materials
 - Key parts
- Show the mechanism (You need a mechanism!)
- One idea per page



For Next Week

- CADLAB#3 is due September 21 at 11:59PM
- CADLAB#4 is due September 28 at 11:59PM
- TEAMPROJ#2 is due September 21 at 11:59PM (Monday sections 10/2 Sunday)
- TEAMPROJ#3 is due September 28 at 11:59PM (Monday sections 10/2 Sunday)
- Start preparing for CADLAB#5
- Start preparing for TEAMPROJ#4



- Ben Walt - walt@illinois.edu
- Graders:
 - Monday 1-2:50PM (AB1) - Aryan Shroff - aryans4@illinois.edu
 - Monday 3-4:50PM (AB2) - Patrick Li - pyli2@illinois.edu
 - Tuesday 1-2:50PM (AB3) - Nishesh Arora - nishesh2@illinois.edu
- Office Hours (MEL 1009):
 - Tuesday Noon-1PM (Before Lab)
 - Wednesday 9-10AM

