

Sketching and Understanding

ME 170 CADLAB#2 and TEAMPROJ#1

Ben Walt

UIUC

Fall 2022



A reminder:

- 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
- CADLAB#2
- TEAMPROJ#1



Sharing and Team Names

- I sent out an email telling you how to [share your project](#) with the Grader and I. It is vital that you do so prior to September 7
- The Grader may have contacted you about how to name your team and projects. Please follow their guidance.



- CADLAB#1 – Introduction to Fusion 360 (Due 9/7 Wednesday)
- CADLAB#2 – Intro to Part Modeling (Due 9/14 Wednesday)
- CADLAB#3 – Multi-Step Part Modeling



- TEAMPROJ#1 – Interviews (Due 9/14 Wednesday)
 - Starting this week.
- TEAMPROJ#2 – Synthesis (Due 9/21(?))



CADLAB#2: Intro to Part Modeling



Today's CADLAB is about sketching, which is the foundation of all CAD design. You will learn about:

- Making sketches
- Constraints
- What 'fully constrained' means
- Dimensioning



- Read ahead - read the whole section before you try it. This can save you a lot of work and the need to redo things.
- Pay close attention to the constraint marks. Your sketch should have similar constraints.
- Part 4 can be tricky. Read the whole section and follow the suggestions. The closer your sketch is to the goal before adding dimensions the better it will work. Sometimes it is easier to delete and start again.



TEAMPROJ#1: Understand Space



- This week you will be conducting interviews for your Team Project
- I will briefly overview the slides.
- You will conduct "User research simulation" activities with your teammates.
- Please ask questions if you need help!



Team Project Requirements

Please note the following requirements:

- Design a new mechanical or electro-mechanical consumer product (i.e. mass-produced for the consuming public)
- The product should have moving parts (i.e. a mechanism).
- The product should be designed predominantly utilizing sheet metal stampings and plastic molded parts.
- The product should be your own design and should have something new or different about it.

See the [Full Canvas Text](#) for all the requirements.



- CADLAB#1 is due September 7 at 11:59PM
- CADLAB#2 is due September 14 at 11:59PM
- TEAMPROJ#1 is due September 14 at 11:59PM
- Start preparing for CADLAB#3
- Start preparing for TEAMPROJ#2

