INTRODUCTION TO SOLIDWORKS

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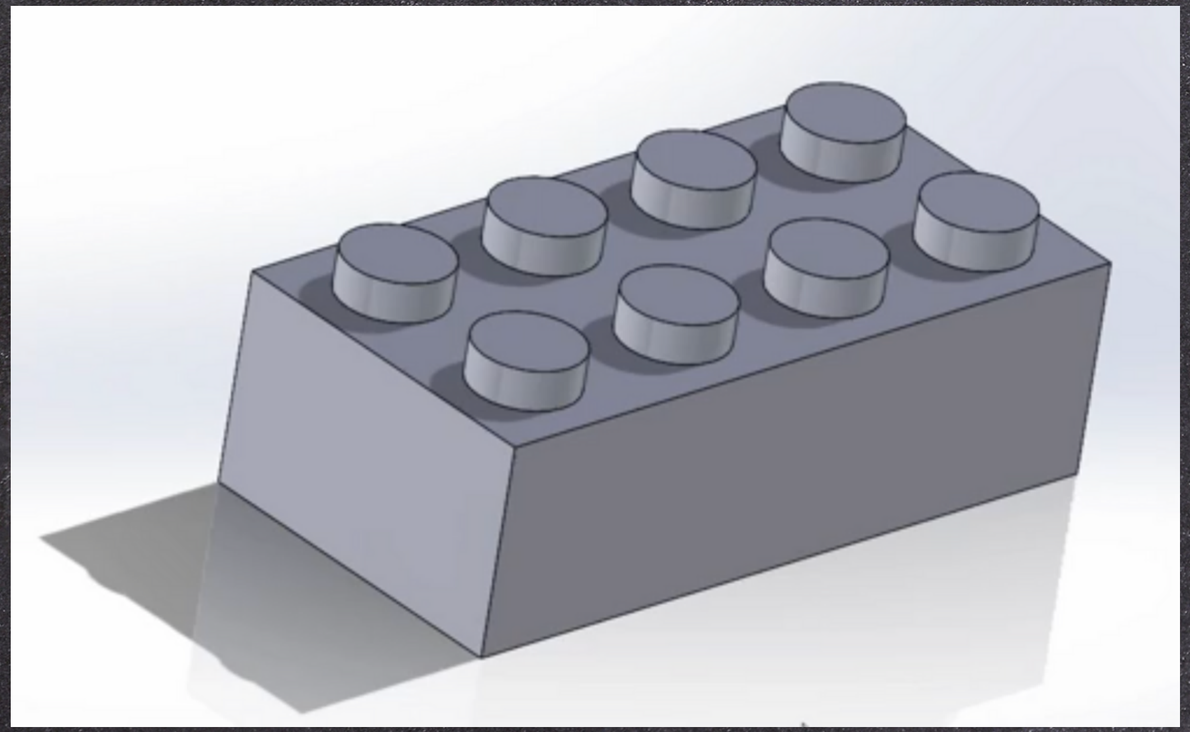
BACKGROUND

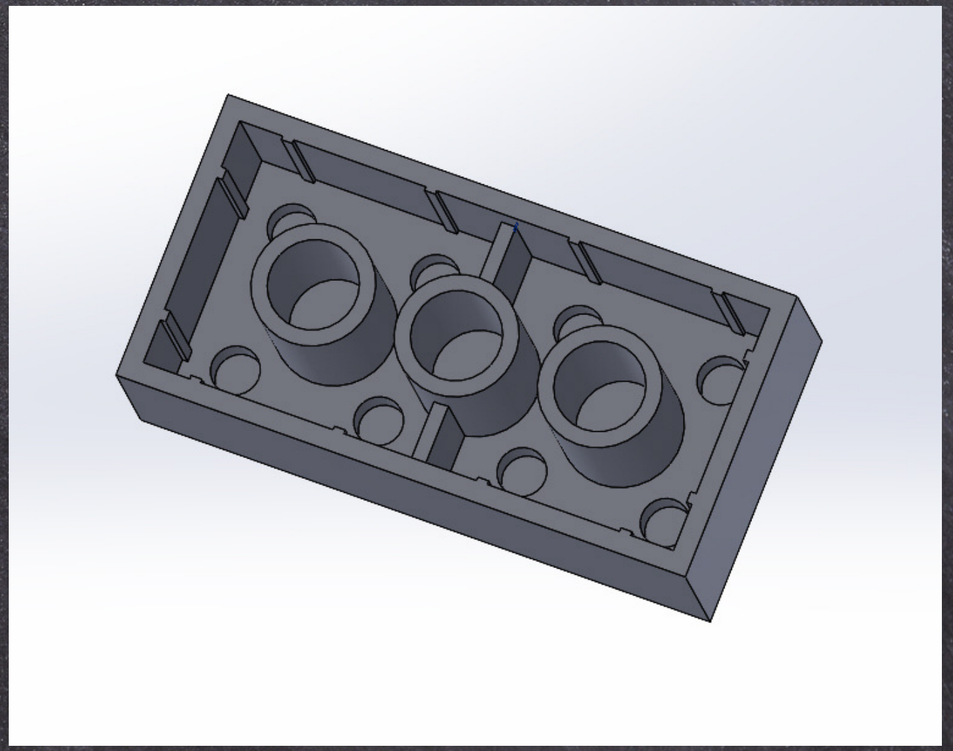
In the spring semester of my sophomore year, I took Engineering Design 1, which was an introduction to various concepts in engineering. In the first few weeks of the course, we focused on building CAD-modelling skills in Solidworks. As I had only CADded in BlocksCAD before, I started as a novice.

ASSIGNMENT

The assignment was to build 4 models in SolidWorks: a LEGO brick, a support base, a juicer assembly, and a pumpkin. I was provided videos of SolidWorks tips and tricks that aided in the building process.

LEGO

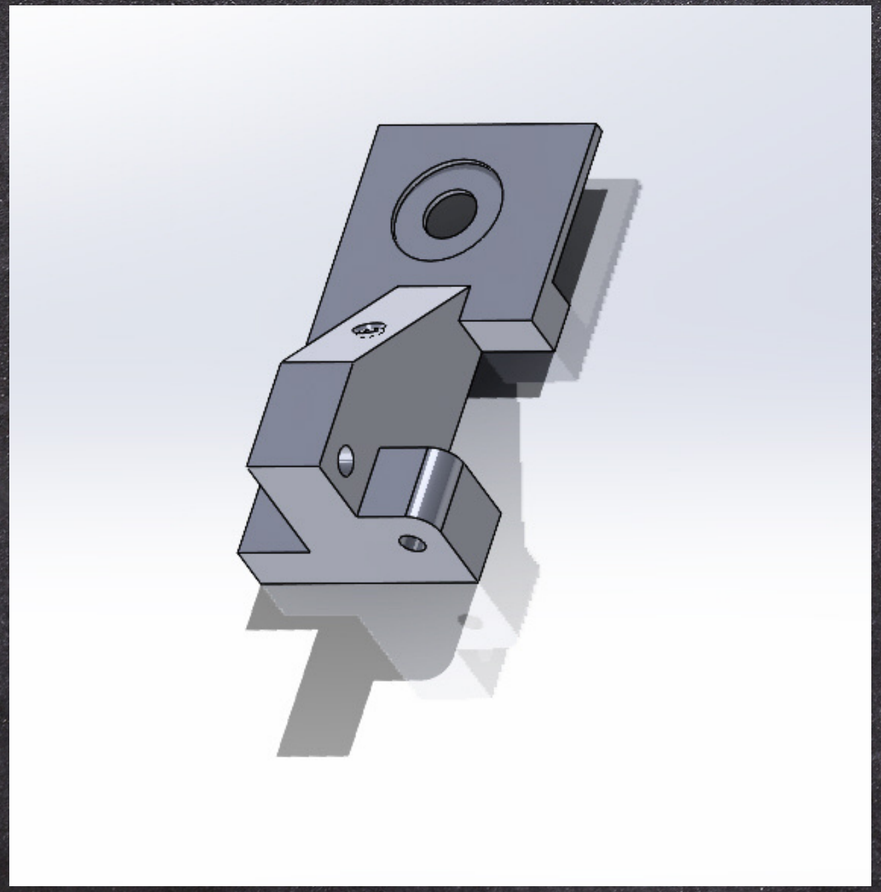


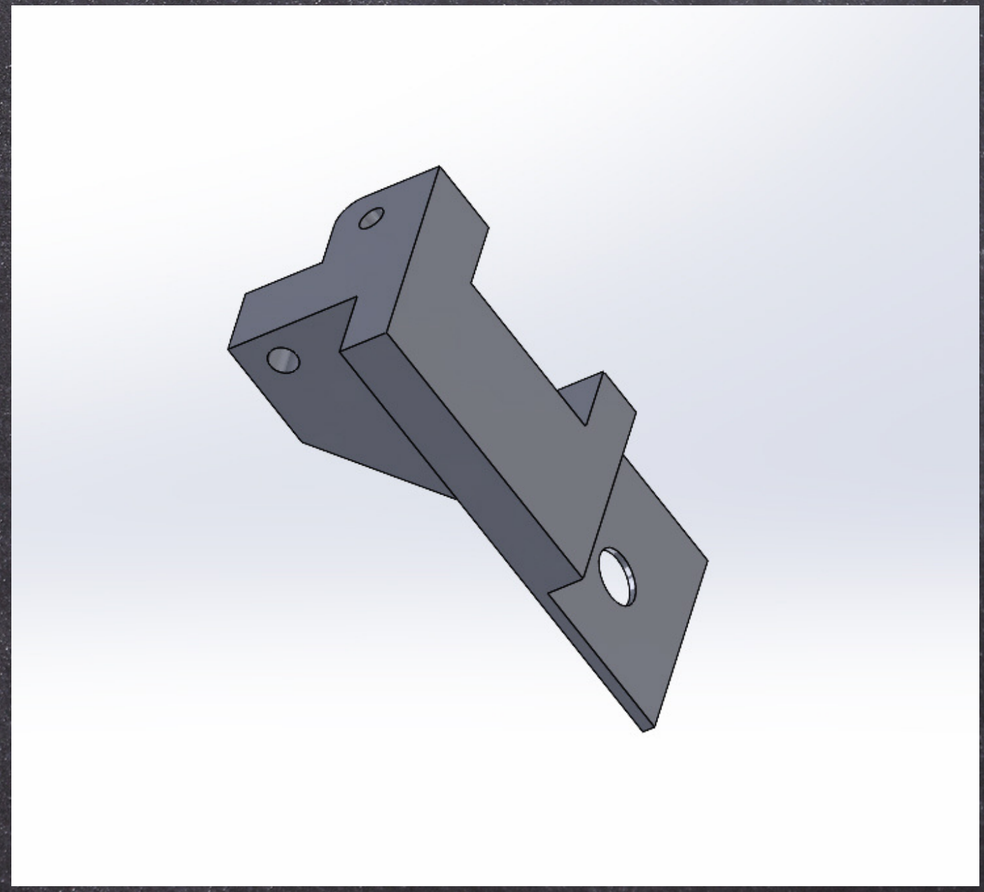


WHAT I LEARNED: LEGO

- How to install SolidWorks and save with Box
- Extrude Boss Base
- Smart Dimension tool
- Linear Patterns
- Mirror Entities
- Shelling
- Offsetting
- Extruded Cut
- Centerlines

SUPPORT BASE

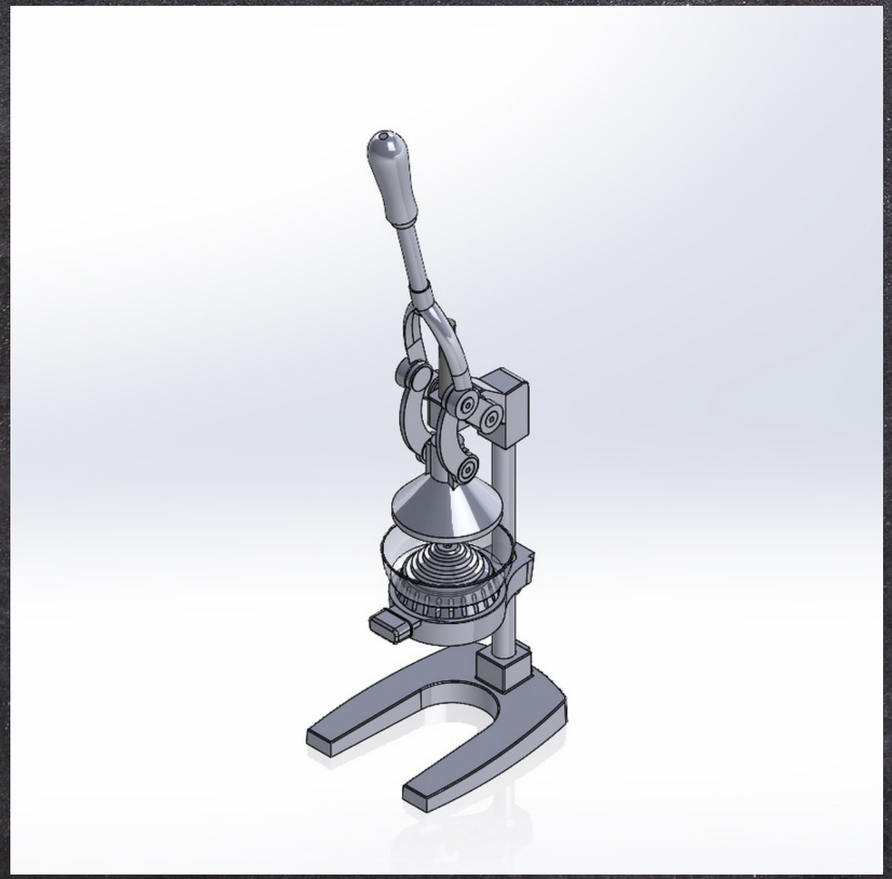


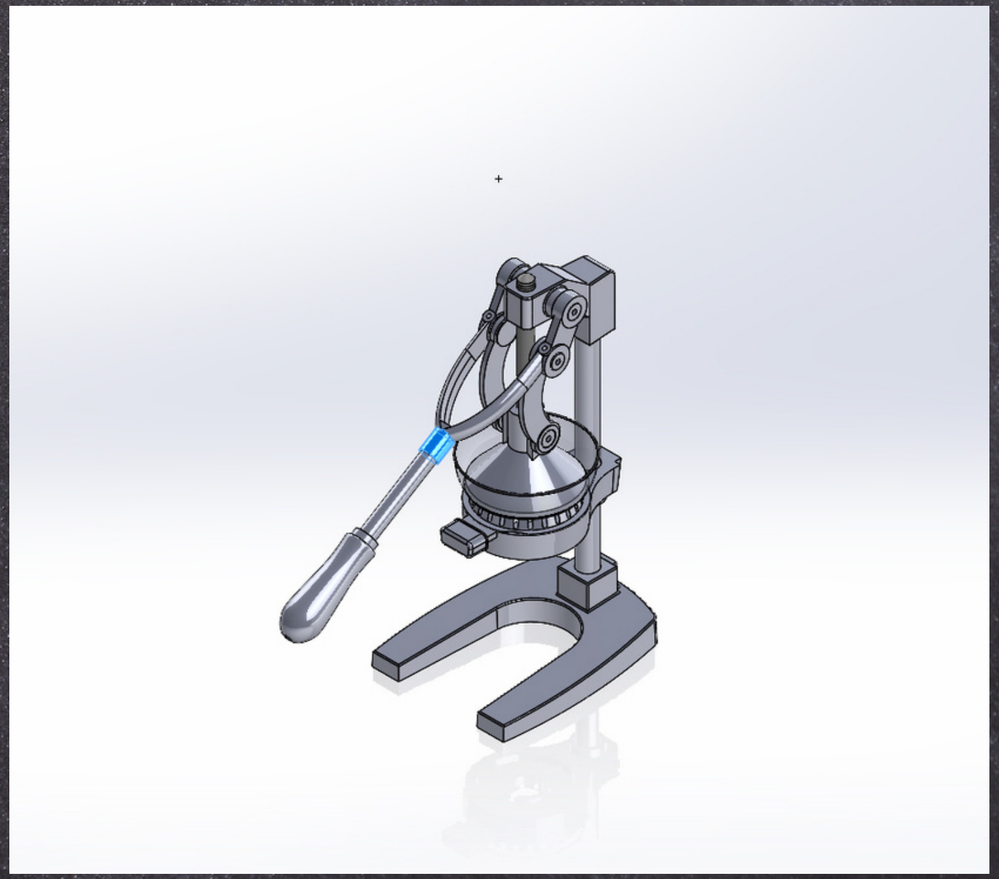


WHAT I LEARNED: SUPPORT BASE

- Changing Orientations
- Free Drawing
- Hole Wizard - Tapped Hole
- More experience with extrusion / cutting

JUICER ASSEMBLY





WHAT I LEARNED: JUICER ASSEMBLY

- Assembly mode in SolidWorks
- How to align parts for assembly
- Mate objects tool
- Lock rotation
- Subassemblies

PUMPKIN

WHAT I LEARNED: PUMPKIN

- Creating Planes
- Lofting
- Adding Color
- Sweep Feature
- Defining and Redefining the Sweep

THANK YOU!

Feel free to reach out with any questions

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