

Aleida Diaz-Roque

Elkaim

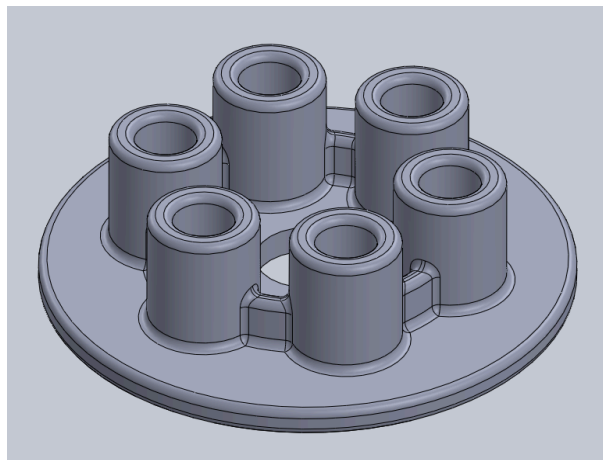
ECE 118

20 April 2024

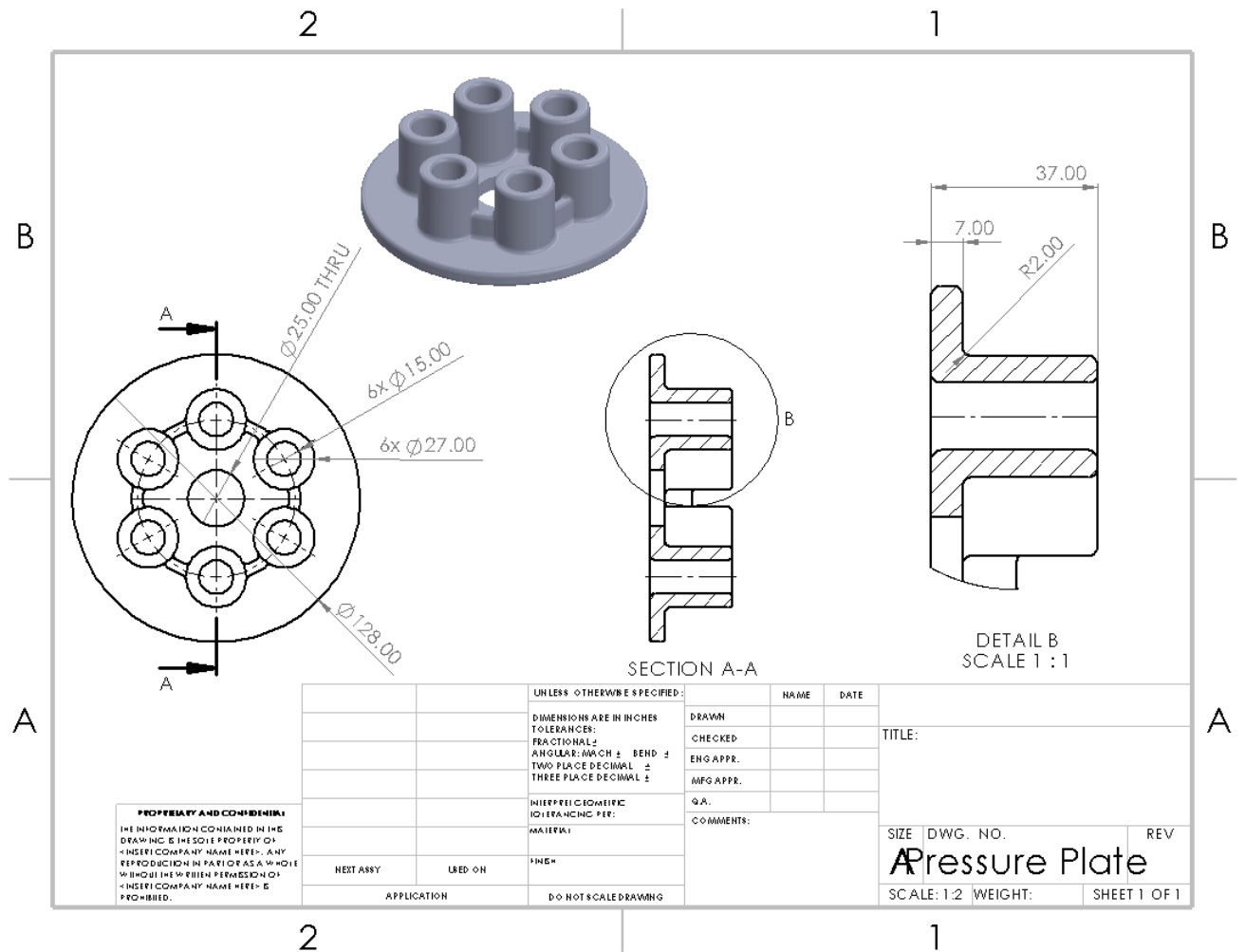
PreLab 2 - Mechanical Prototyping

Part 0 - SolidWorks Basics

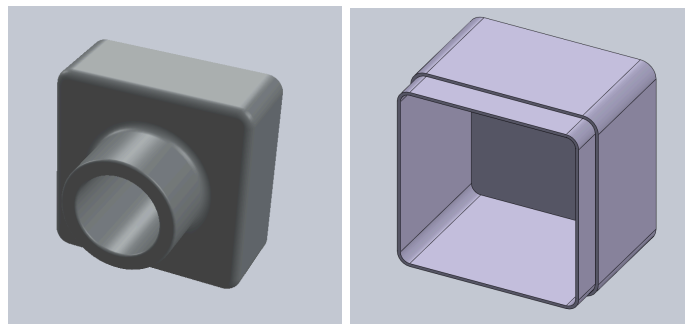
SolidWorks Introduction: 3D Design Overview



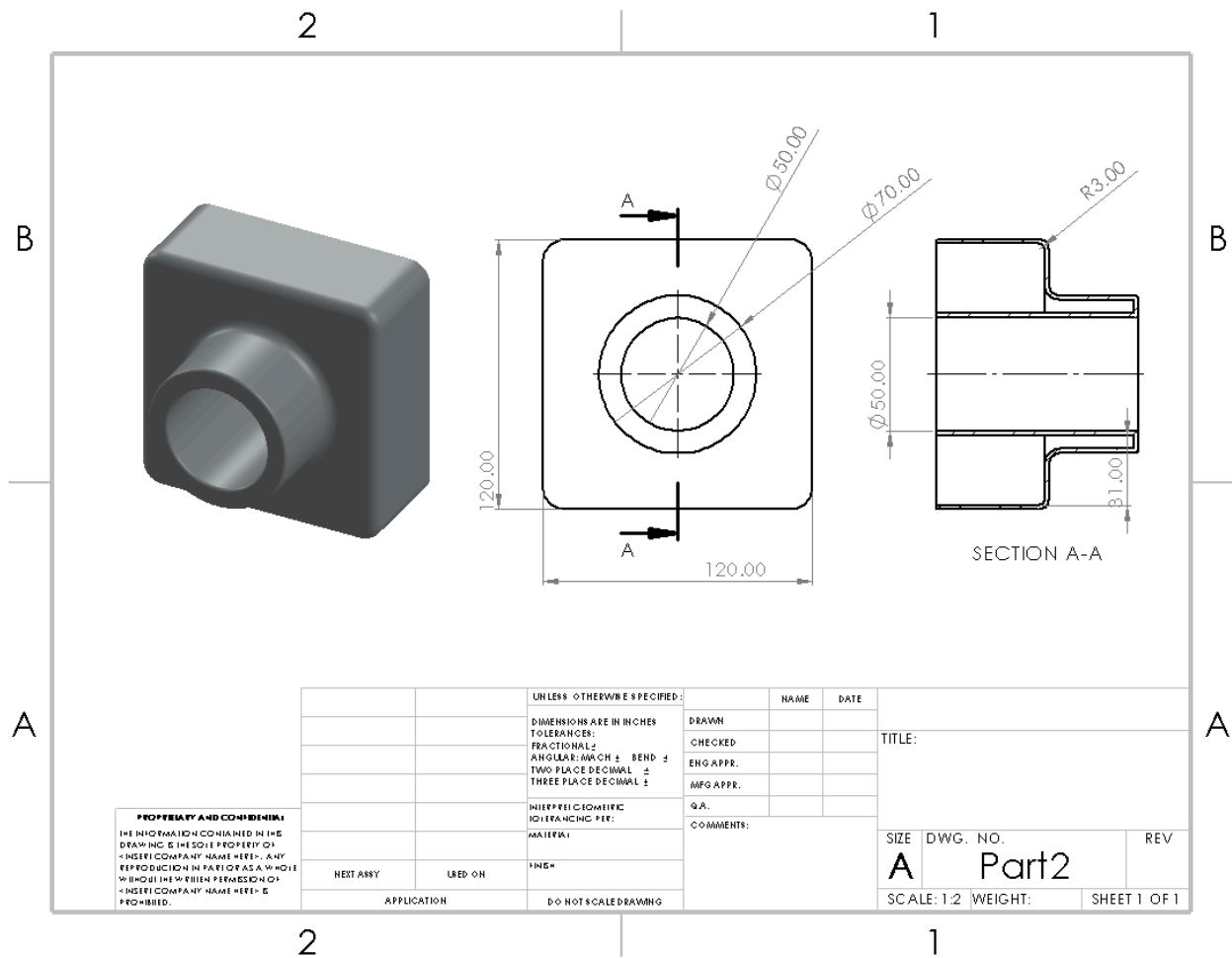
This is the final part created for the introduction tutorial. A full drawing is included below.



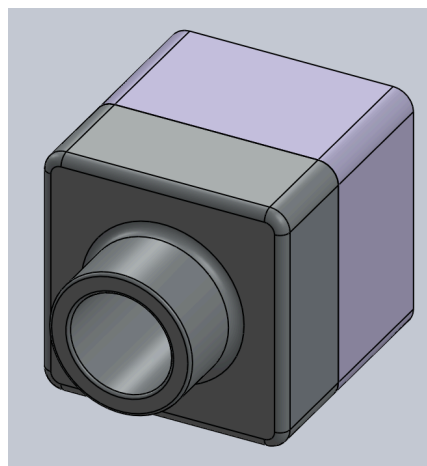
SolidWorks Lesson One: Parts



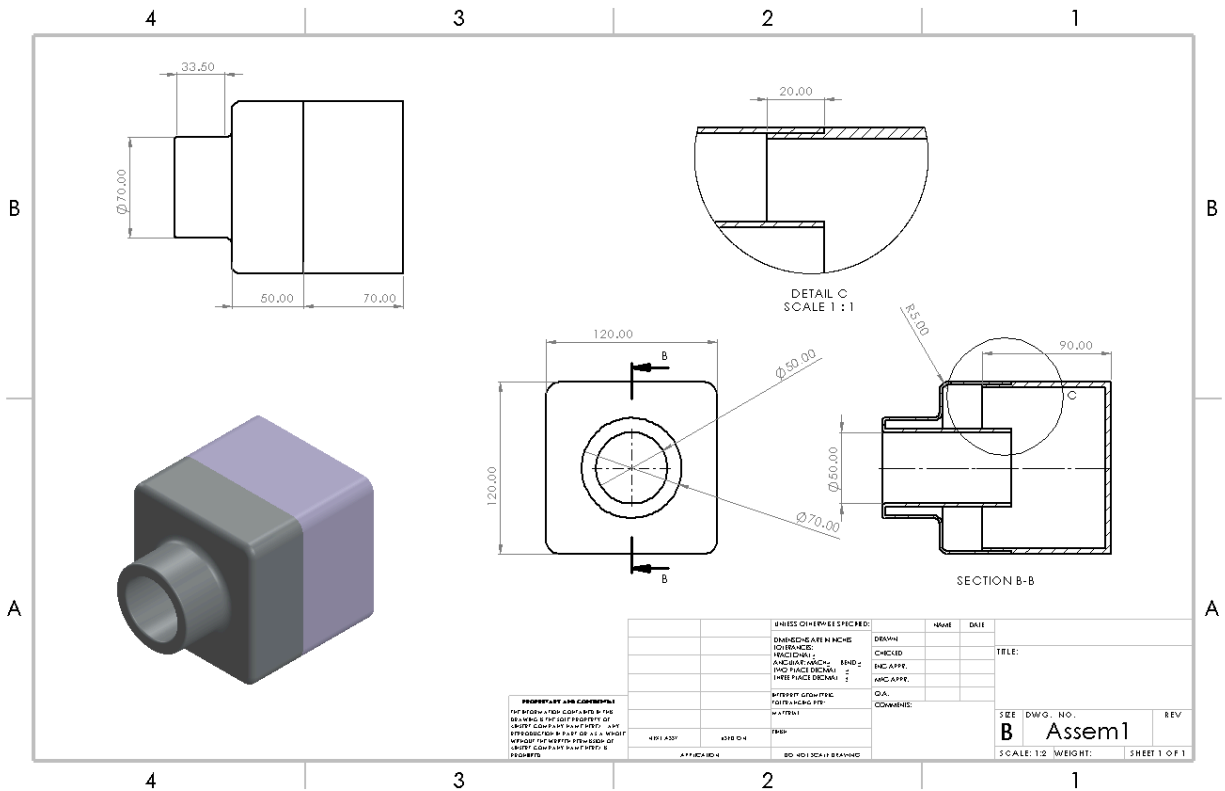
Top and bottom portion of assembly individually made. A drawing for the top part is included below.



SolidWorks Lesson Two: Assemblies

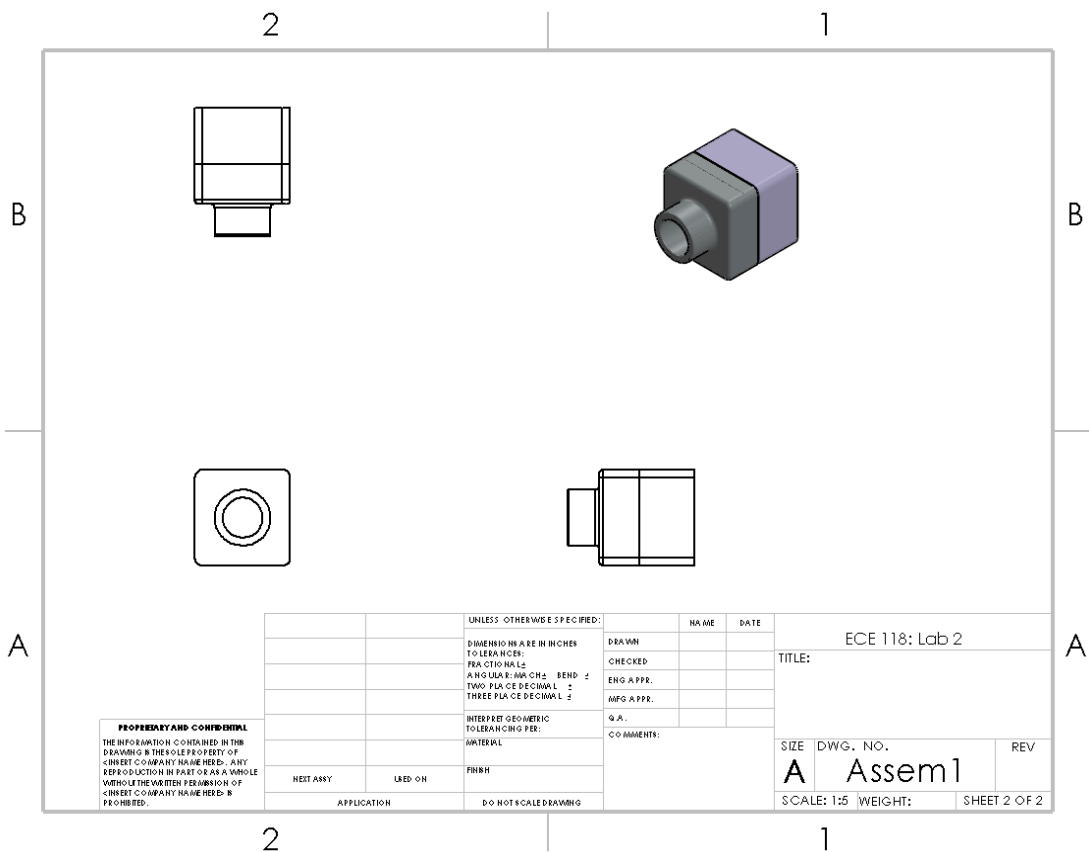
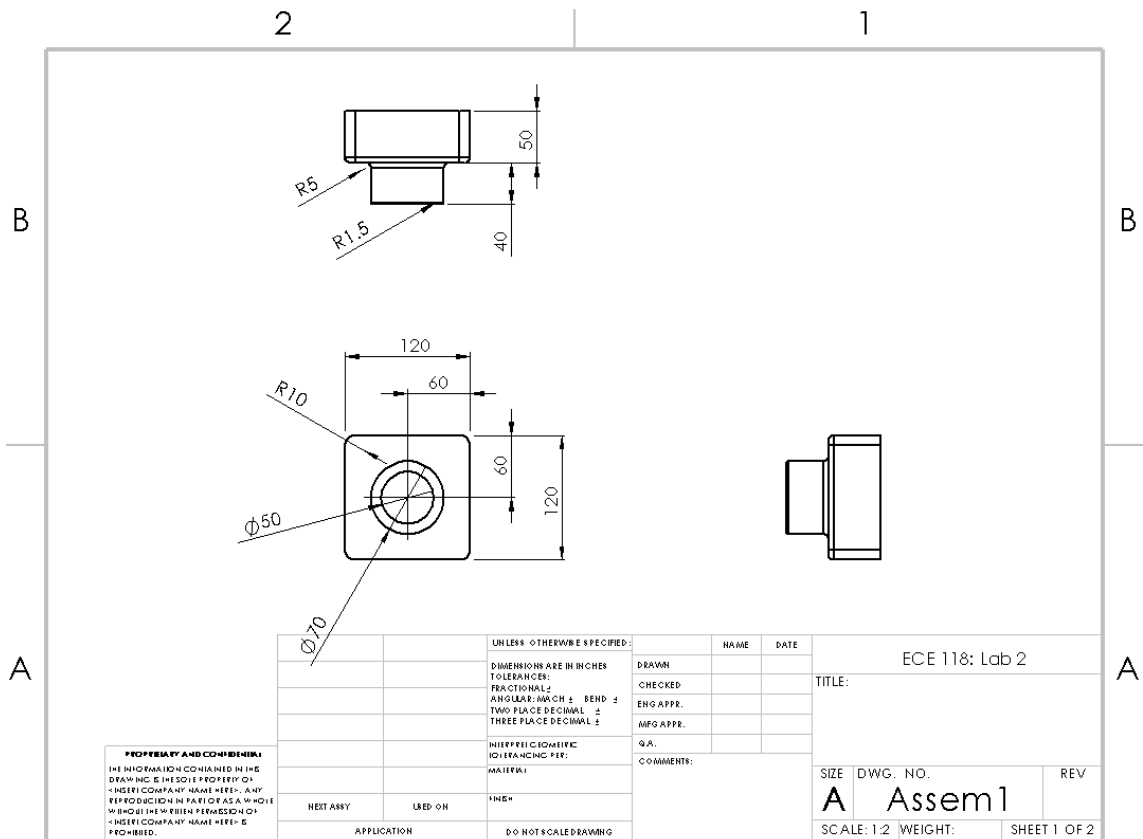


In this part of the tutorial, both top and bottom parts were mated. Below is an individually made drawing.



SolidWorks Lesson Three: Drawings

In this part, the lesson shows how to make a drawing of the assembly portion. Below is the drawing from the tutorial.

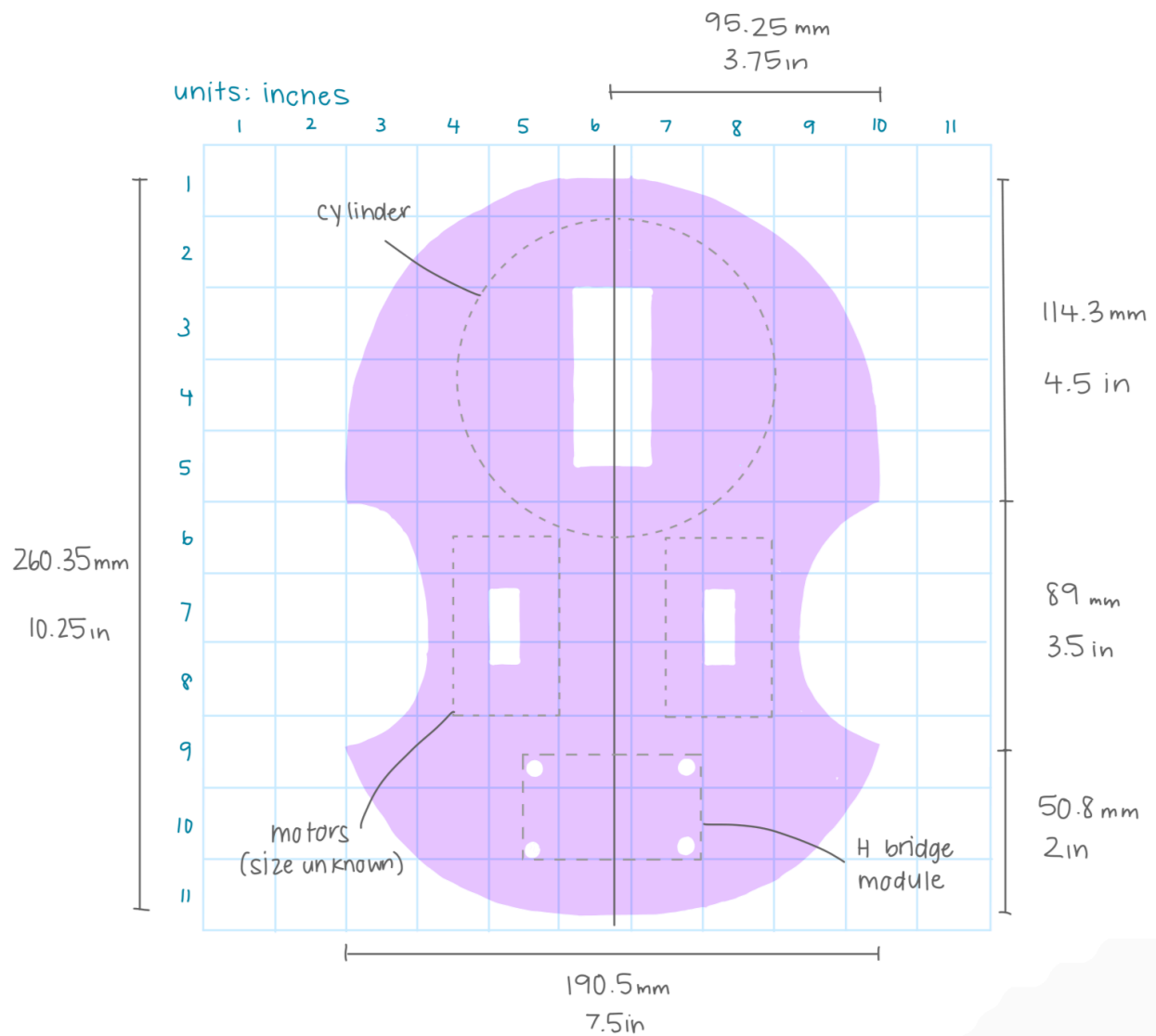


Part 2 - Designing A Motorized Platform

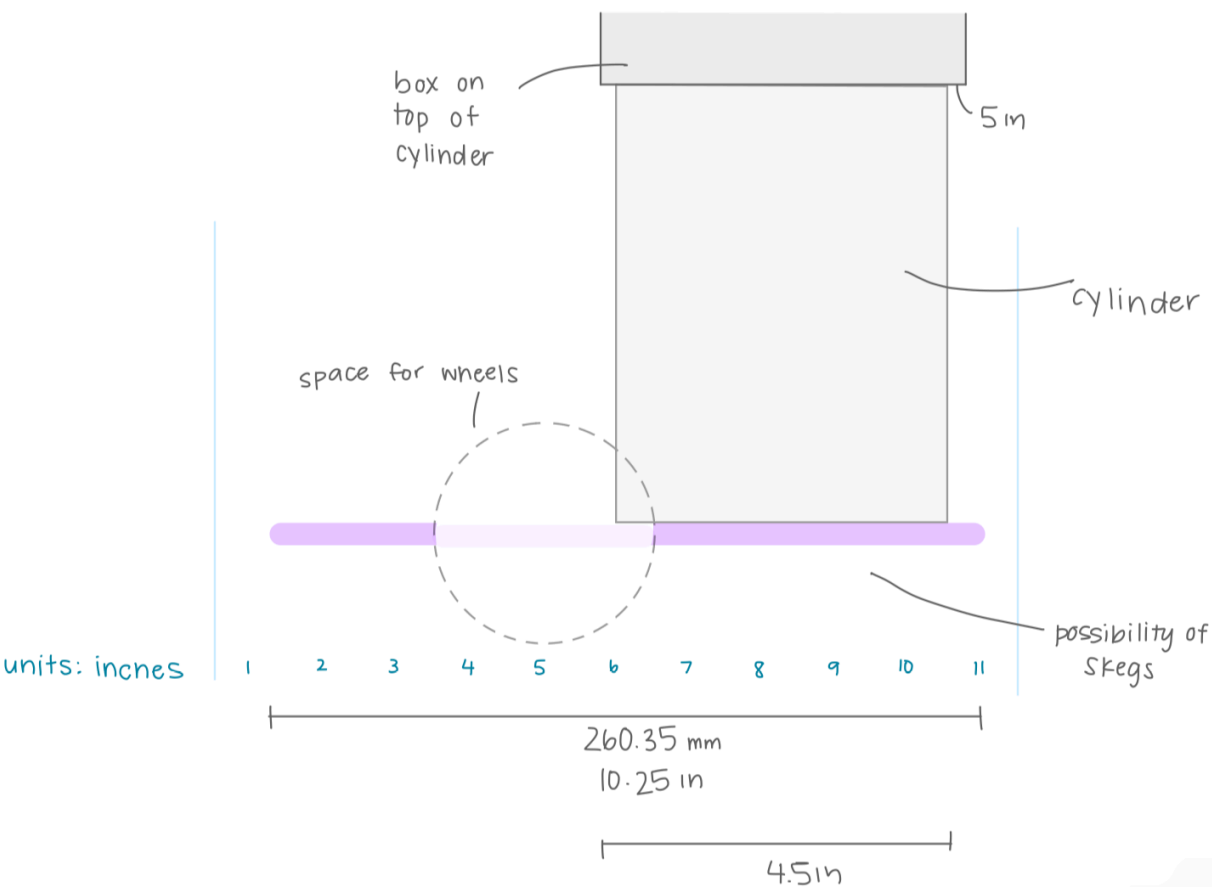
Assumptions:

- 76mm wheel refer to the diameter of the wheels
- Depth of wheel slot undefined as other measurements are unknown
- Motor dimension unknown, assumed to be 0.75" x 1.25"

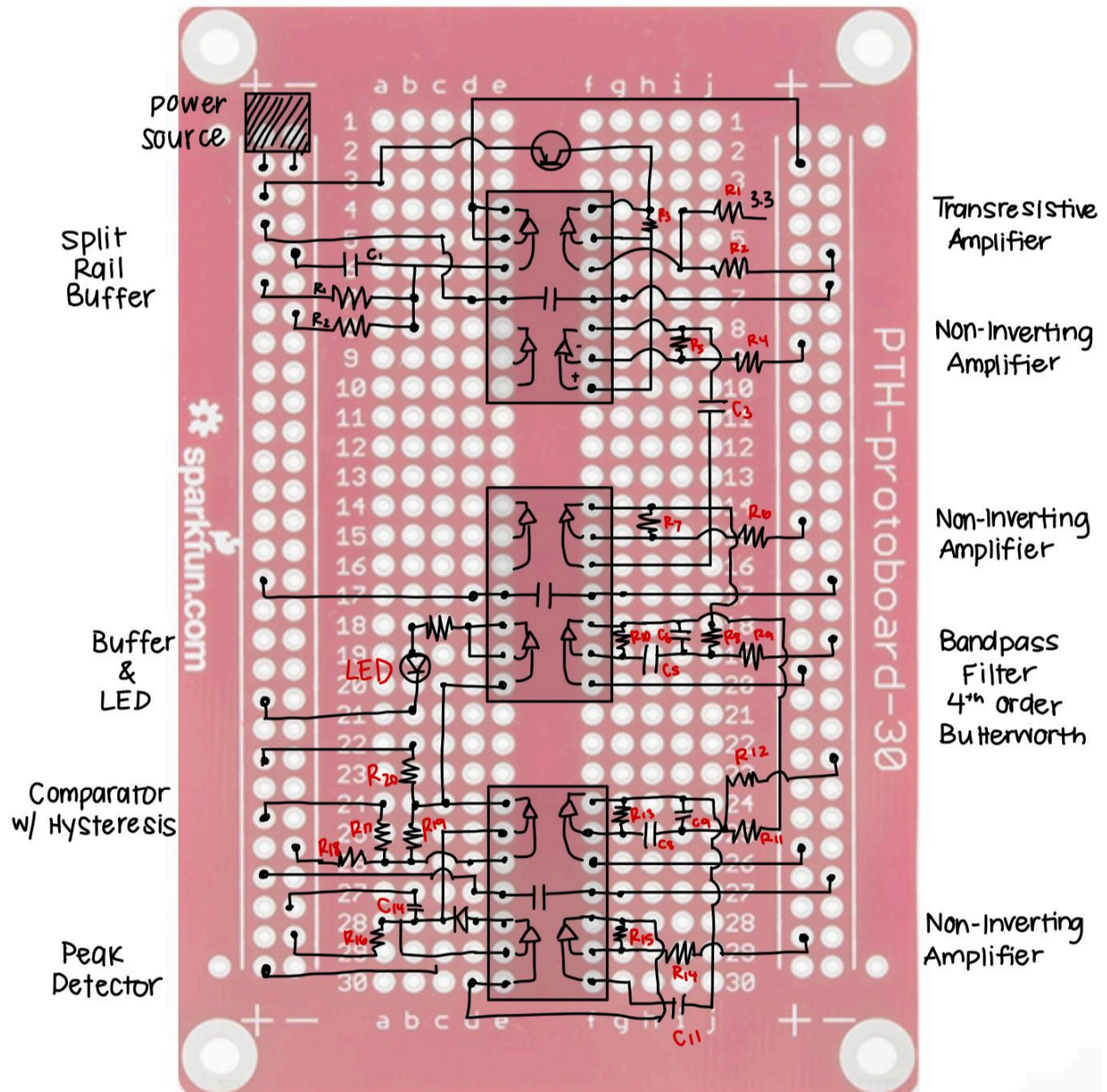
Front View:



Side view:



Part 4 - Beacon Detector on Perfboard



A circuit for the implementation is below.

