Final Project

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Outline

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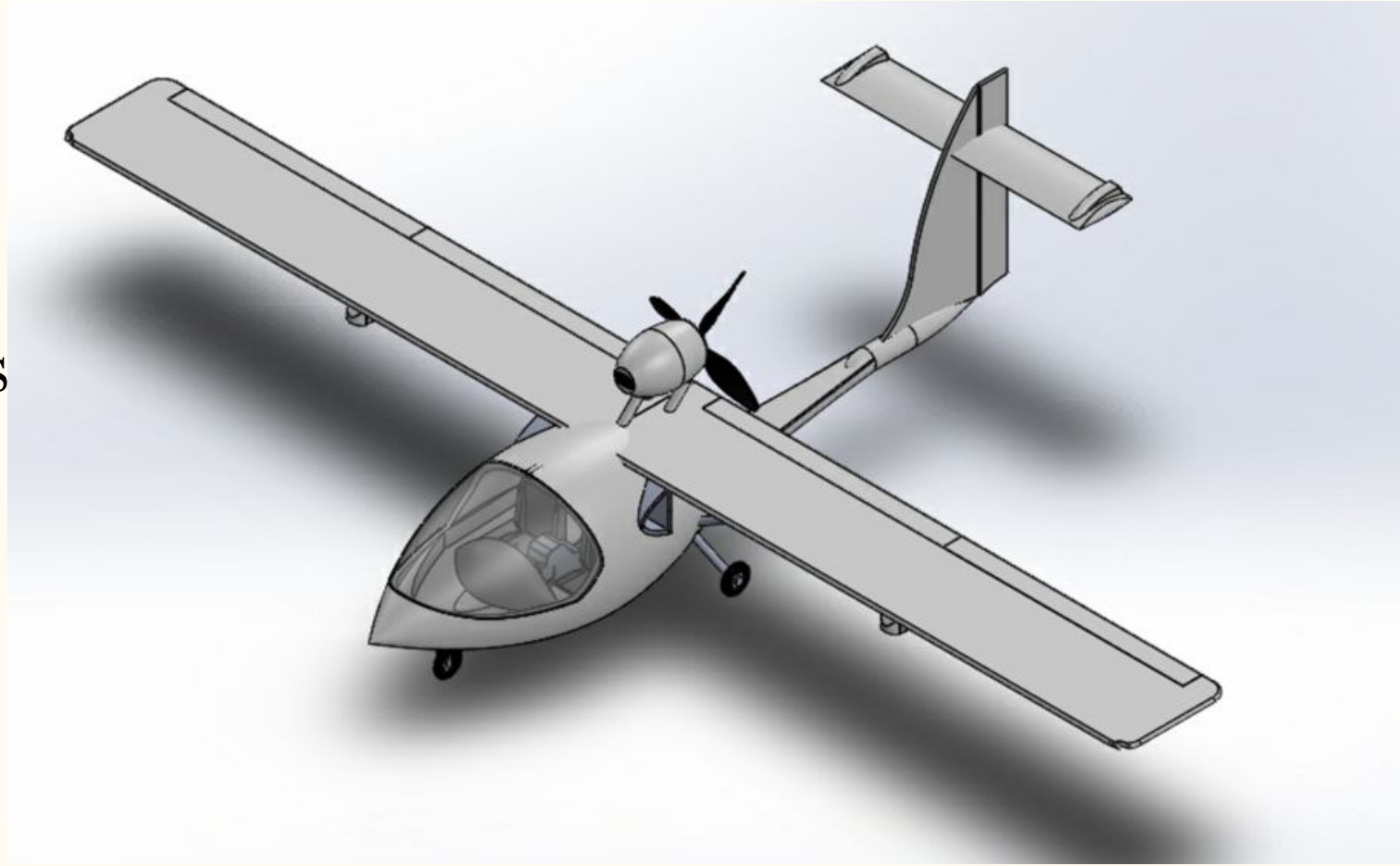
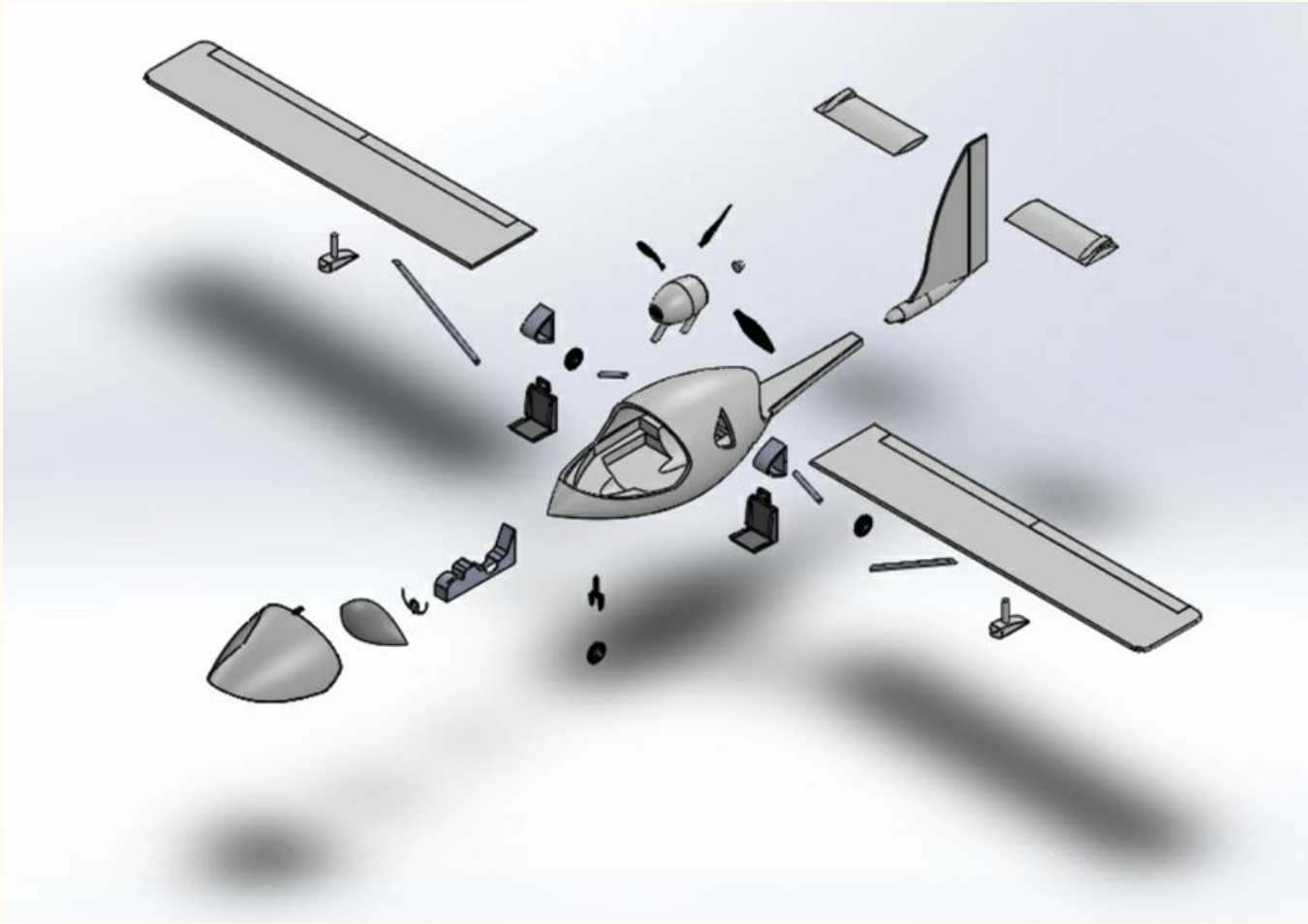
Introduction

- Names: Sophia Salazar, Hope Davila, Brian Tran, and Kyle Martinez.
- Type of Vehicle: Float Plane
- Vehicle Name: Seamax M-22
- Purpose: To fly long distances and float over water when necessary.
- Reason we Chose Vehicle: The vehicle is a interesting machine that is versatile to two different terrains and the unique appearance of the plane seemed like a way to challenge our skills in using Solidworks.
- Goal: To build a vehicle that had at least twenty different parts, where each member designed five of them. This would allow us to apply our knowledge of Solidworks to detail our parts to resemble the Seamax M-22.

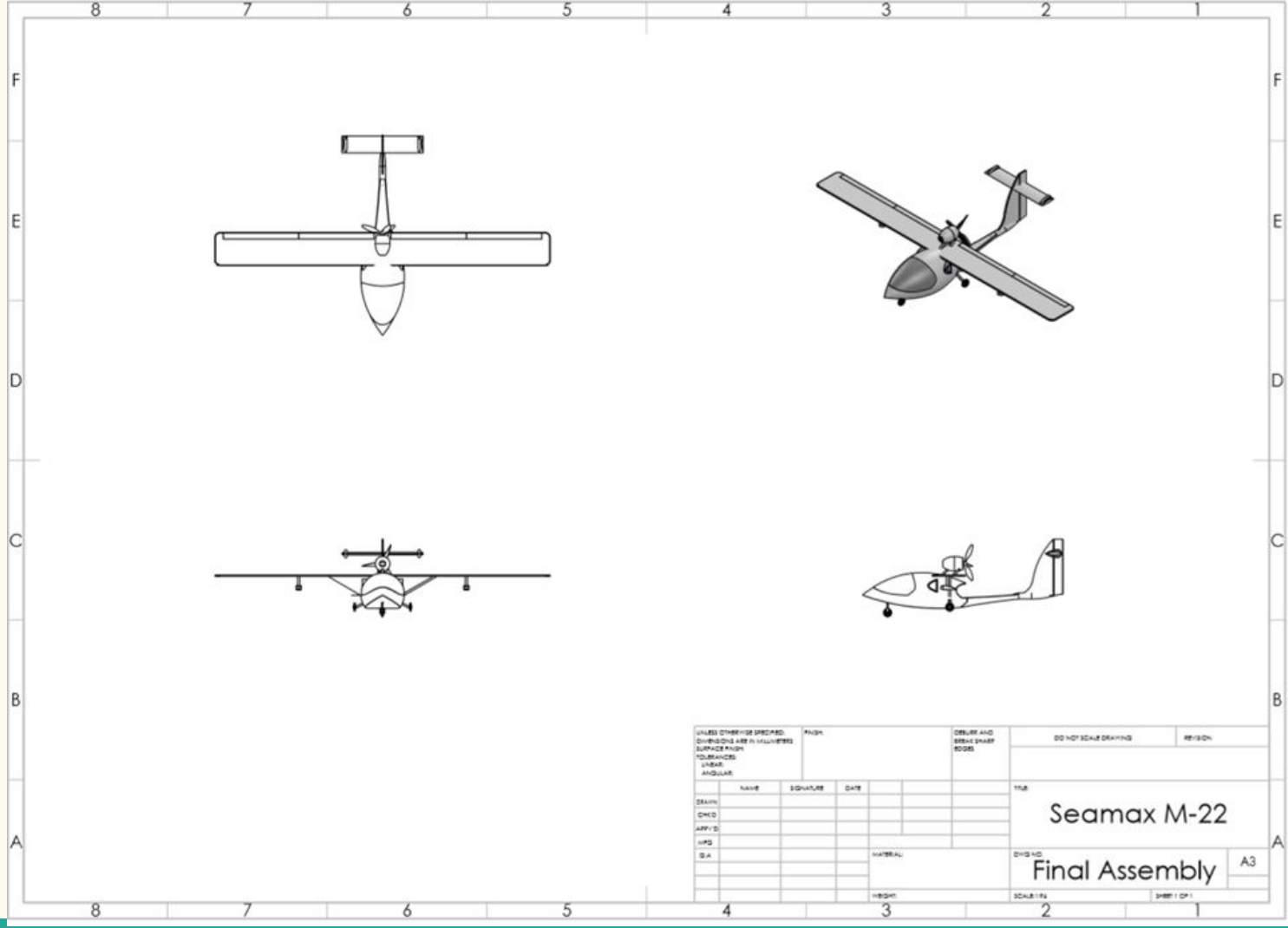
SolidWorks Model



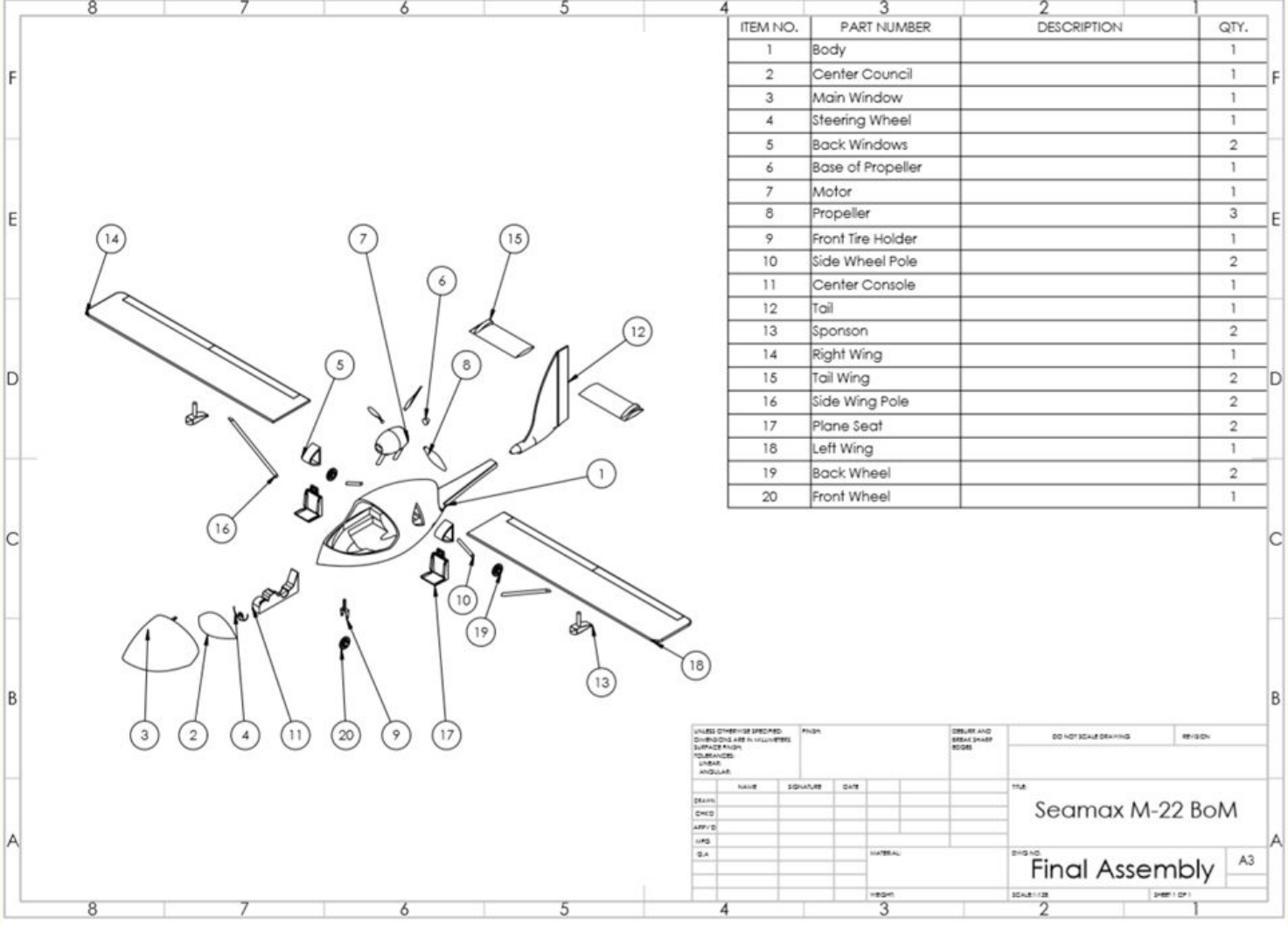
SolidWorks Model (Exploded View)



SolidWorks Drawing (Four Views)



SolidWorks Drawing (Exploded View)



Difficulties Encountered

- Due to the detailed features of the plane and lack of information for the measurements of every part on the plane, each member had difficulty in creating the parts to make them look similar to the plane's features.
- When mating the parts, some of the parts were difficult to put together because we could not find the correct mate we were looking for. Additionally, some of the mates overdefined the parts, thus meaning that some mates had to be deleted without ruining the assembly.
- Due to each members' college schedules, we were not able to meet at a time that was convenient for everyone, which led to more time in completing of the project.
- Due to the lack of communication for our parts, the parts were not to scale and could not fit in the plane properly. As a result, these problems took up more time to fix, thus lengthening the time we intended to complete the assembly.

Experiences Gained

- Learning how to use different features to work with other parts when put into assembly.
- Work with group members to create an efficient model of a plane.
- How to successfully assemble various parts made using the different mate features- how we are able to change pieces so that they are able to be attached through a mate.
- Working past busy schedules of our group to make all necessary parts and have them work as a system for their intended purpose, despite the lack of meetings held.
- Learned additional features including scaling, so each piece is the correct size in relation to the real plane.