

TASK HISTORY	TASK TITLE Structures	TASK NUMBER 1	PROJECT IREC
TASK HISTORY AUTHOR Ali Lasemi	TEAM LEAD Ali Lasemi		TASK DOCUMENTATION
DATE	MILESTONE	REVIEWER'S INITIALS	Structures Team Beginning of School Year Summary and Objectives
10/8/2018	Design, CAD, ordering parts	AKM	

Why We Did

The purpose of the recent meetings have been to come up with an initial design and Openrocket file for the fullscale rocket and a finalized design and Openrocket of the subscale rocket, as well as finishing CAD and part orders for subscale in preparation of build sessions.

What We Did

The Openrocket for the fullscale and subscale was finished. The CAD for the subscale was mostly finished, and parts were ordered for the subscale rocket to begin construction. The parts have arrived, so build sessions can now begin. Also, from the CAD, dimensioned sketches of the fin can and fin designs were created to be brought to a machine shop.

Results

The subscale parts list can be found in the “Structures/Parts List” directory on the IREC 2019 Google Drive page. The link is provided below:

<https://docs.google.com/spreadsheets/d/1sxdSkahYB83fno94T8tubdULFgOmPnhmN8MKfUDiySo/edit#gid=0>

The dimensioned sketches will be taken to a machine shop on Tuesday 10/9/18 to get a cost estimate for the fin can and fins.

Lessons Learned

It was learned that doing CAD as a group is much faster than assigning a few people to the task as we have in the past. Also, doing CAD is a great way to find potentially issues with dimensioning and design, as we did with the fin can (it was too long for the fins and the tabs stuck out). Also, getting parts ordered quickly is important for staying on timeline.

Impact Statement

Structures still has some work to do on finalizing CAD and possibly ordering a few more parts, but the team is now ready to start doing construction for subscale. It will be important to set a launch date soon and finalize the engine that we will be launching on as soon as possible.