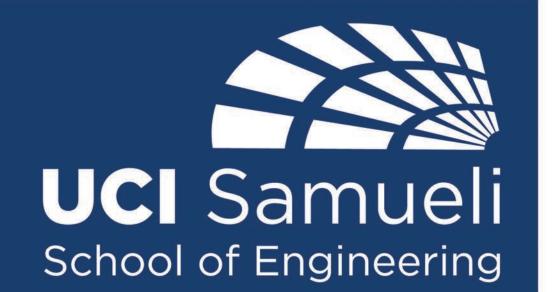


# Rocket Project

Advisor: Professor Mark Walter



**PROGRESS** 

Propulsion

37.9%

**Avionics** 

8.6%

### BACKGROUND

- First liquid propellant rocket at UC Irvine
- Preparing engineers for aerospace industry

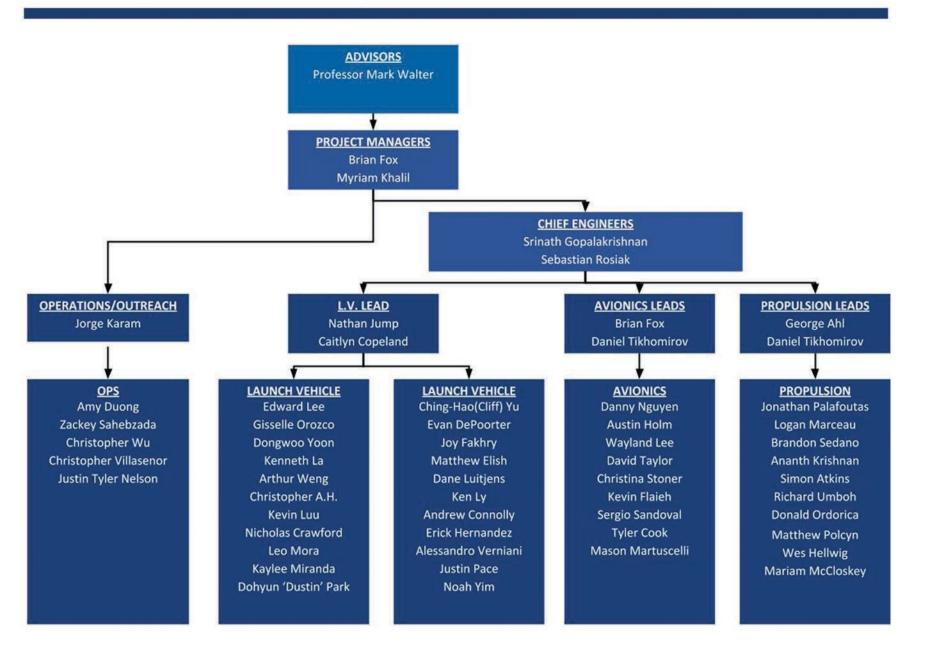
### GOALS

- Conduct successful static test fire
- Win the Base 11 Space Challenge by being the first university to launch a liquid fueled rocket to the Karman Line

### **OBJECTIVES**

- Engine Design Thrust: 1300 lbs
- Test Stand with Data Collection System and Safety Features
- Base 11 Rocket Altitude: 100 km
- Dynamic Flight Control System
- Single Stage Liquid Engine Design
- Lightweight Rocket Structure

## **TEAM STRUCTURE**



#### TIMELINE Apr. 2019 Nov. 2019 Jun. 2019 Dec. 2019 Feb. 2019 Aug. 2019 **Conduct Second Post Launch Conduct First Static Vertical Test Fire** Launch Analysis **Static Fire Prep**

- Completed test stand, plumbing system, and assembly procedures
- Developing plumbing leak test, system flow test, and cryogenic compatibility test procedures
- Manufacturing engine assembly and retrofitted engine mount
- Integrating sensors and actuators into central LabView VI

