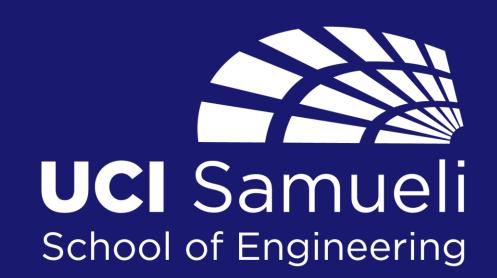


HyperXite

Future of Sustainable and Affordable Transportation



BACKGROUND

Energy cost per passenger for a journey between Los Angeles and San Francisco for various modes of transport Passenger Passenger Motorcycle Airplane Hyperloop + Vehicle

HyperXite is a team of undergraduate students aiming to compete in the Fourth SpaceX Hyperloop Pod Competition in the summer of 2019. The Hyperloop concept, first proposed by Elon Musk in 2013, has the potential to change the way we see the future of affordable and sustainable



January 2016

Design Weekend

#5 for Overall Design



January 2017

SpaceX Competition I

Top 29 Finalists



August 2017

SpaceX Competition II

1 of 6 teams to run in tube



July 2018 SpaceX Competition III

Top 22 Finalists

Fairing

Chassis

Budget: \$84,369.48 Controls 13.1% Static Structures **Power Systems** 46.1% 11.5% Piping & Cooling

TOTAL POD COST

Dynamic Structures

Cost percentage by system

Propulsion

Braking

12.6%

1000

Hyperloop

GOAL

Build a high speed, self propelled Hyperloop pod and complete a successful vacuum run during the SpaceX Hyperloop Competition IV in Summer 2019.

OBJECTIVES

- Top speed of 245 mph
- Vacuum safe
- Real-time pod behavior monitoring
- Stop the pod 100 ft before the end of tube

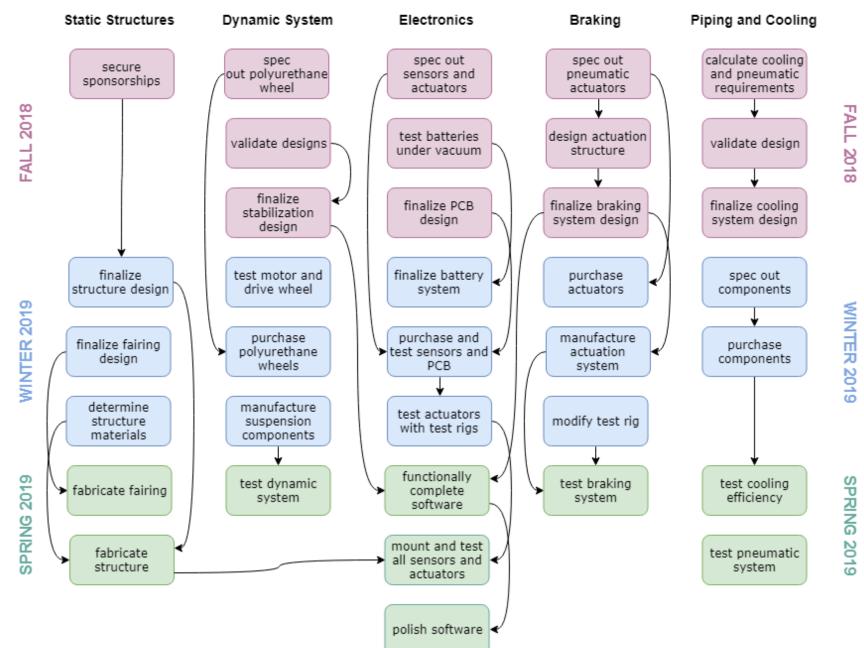
transportation.

Propulsion Assembly



Magnetic Braking Assembly

MANUFACTURING PLAN



TEAM ORGANIZATION



Static Lateral Stabilization Structure

Dynamic Vertical Stabilization Structure

Dynamic Lateral Stabilization Structure

IIMEI	LINE						
Preliminary Design Briefing	Final Design Package due	Final Design Presentations	Safety Briefing	Complete Design of Pod	Full Systems Testing	Manufacturing and Component Testing	Competition Day
	Present						
November 2nd	January 11th	Winter 2018	January 21st	February 4th	May 20th	June 3rd	Summer 2019

ADVISORS

Roger Rangel	Kyle Ferreira	Arwa Tizani
Faculty Advisor	Graduate Advisor	Graduate Advisor
rhrangel@uci.edu	krferrei@uci.edu	atizani@uci.edu

HyperXite.com Jason Edward Lee (<u>jasonel@uci.edu</u>) Adora Anoud Tadros (aatadros@uci.edu)