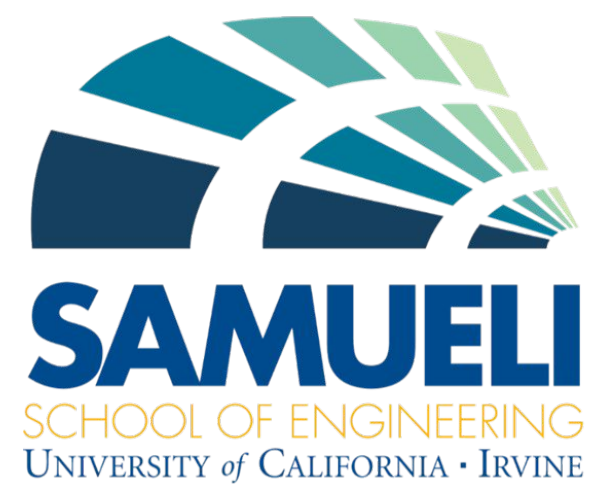




HYPERXITE

Changing the Future of Transportation



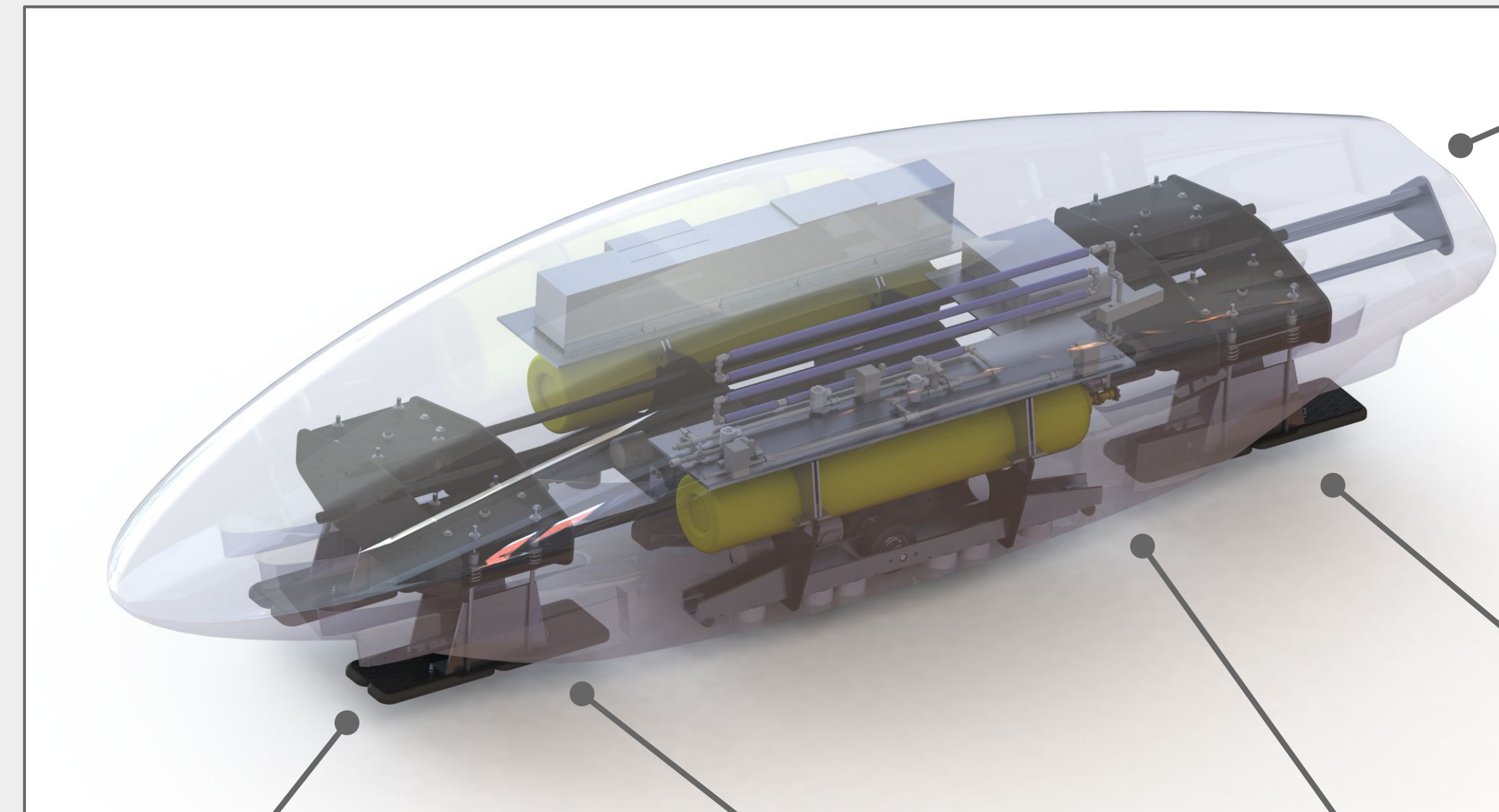
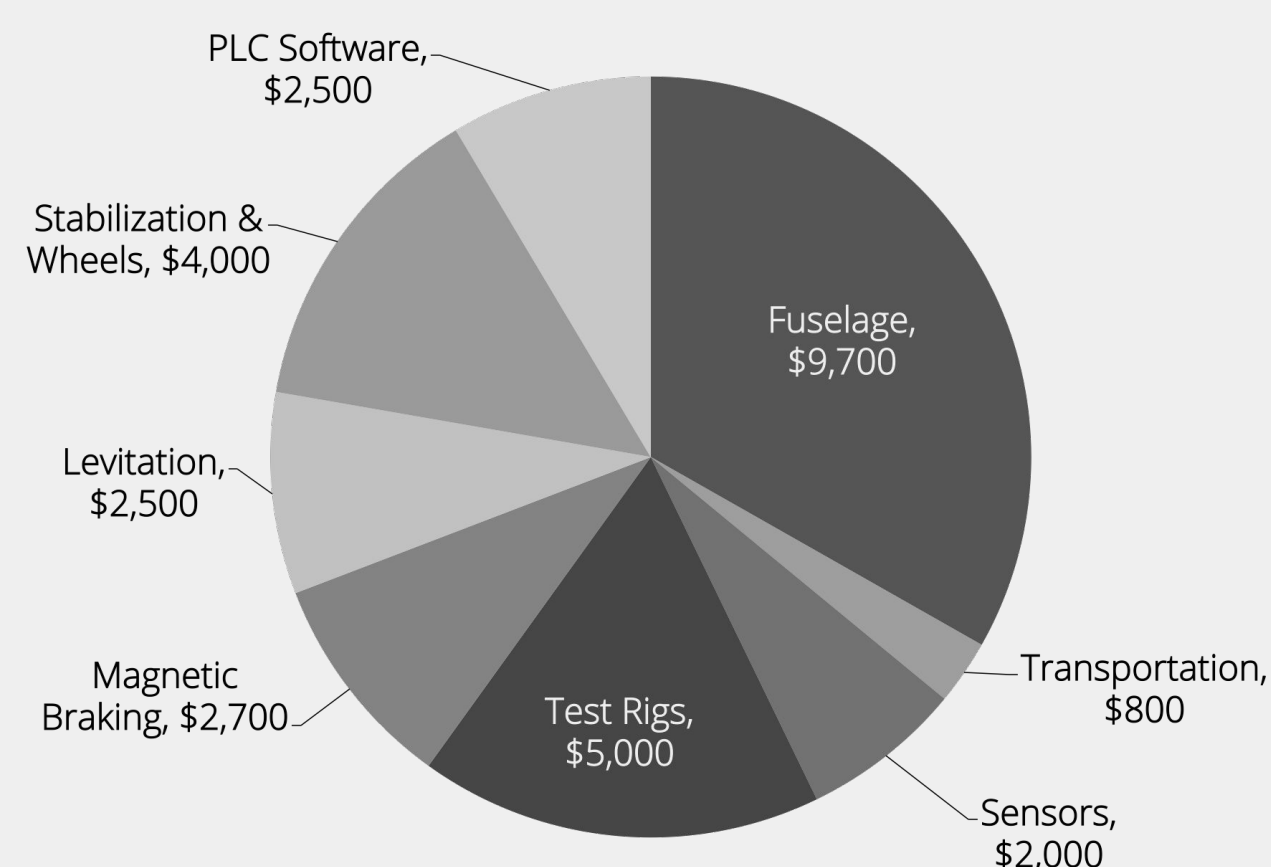
GOALS

- To win first place at the SpaceX Hyperloop Pod Competition in both overall point total and speed.
- To accelerate the development of a fast, economical, and sustainable transportation system.

OBJECTIVES

- Design and build a 1:2 scale Hyperloop pod that utilizes air based levitation and is optimized for a one mile test track.
- Educate and train students in simulation and advanced manufacturing.
- Collaborate with industry partners and students from many disciplines.

BUDGET BREAKDOWN



STRUCTURES

The structure of the frame is designed to include a strong inner core from which carbon sandwich plates and aluminum are extended to support other systems.

CONTROLS

The controls system manipulates actuators and valves to control the velocity, lateral stability and levitation of the pod.

POWER

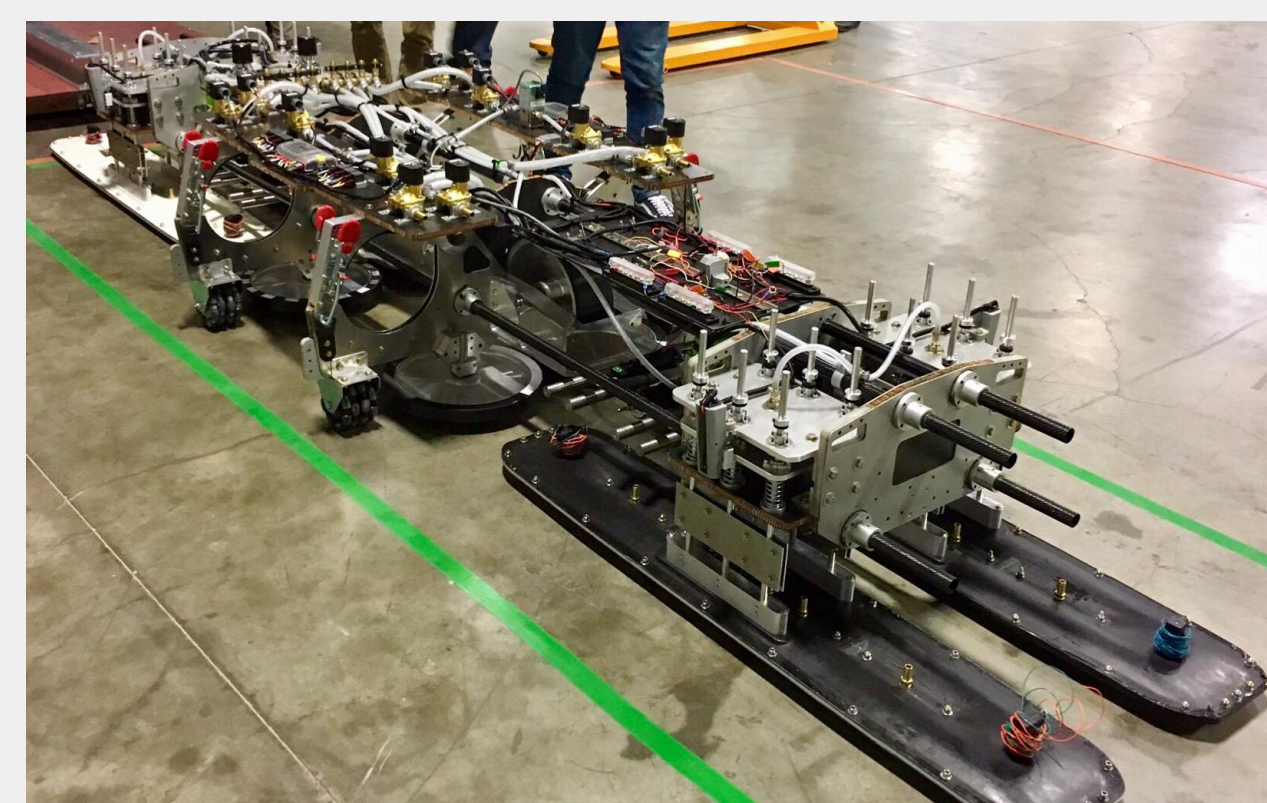
The power system consists of two compressed air tanks, one auxiliary tank, and two rechargeable battery packs.

LEVITATION

The air based levitation system consists of four skis, each with a flexible bottom skirt and a carbon fiber top ski, that allow the pod to levitate on a cushion of air 2.5mm above the surface of the track.

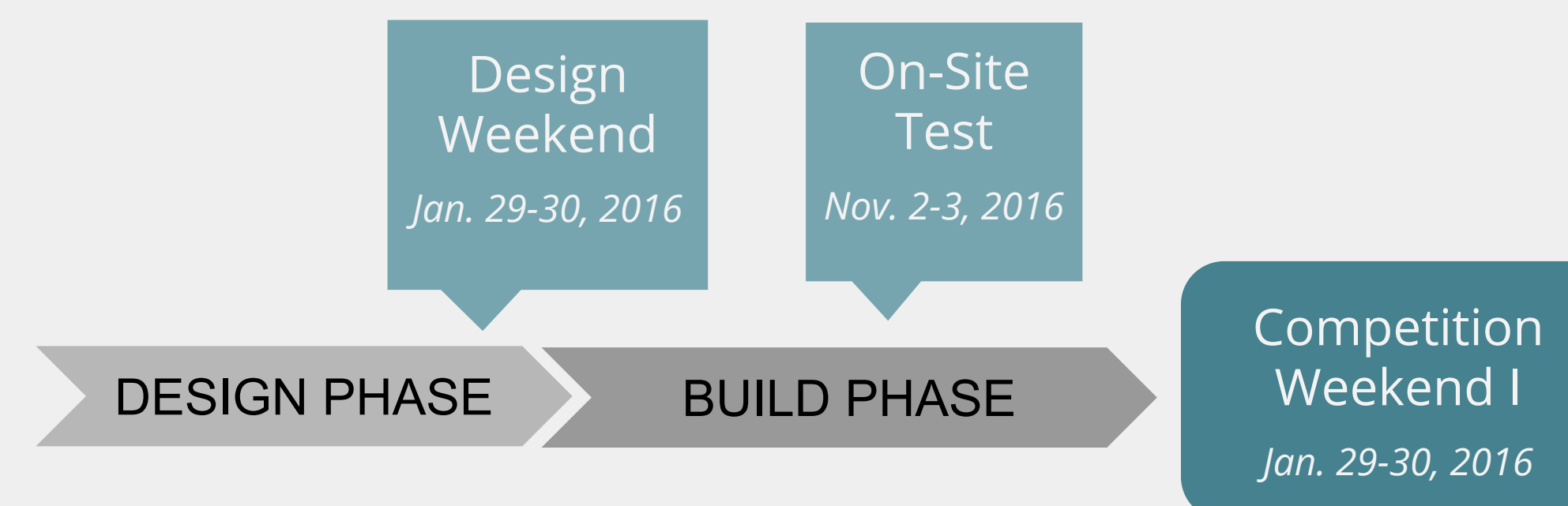
SUSPENSION

This system, containing one air spring and four metal springs, is designed to have two capabilities: vibration damping and semi-instantaneous retraction.



The HyperXite pod, fully assembled and ready for an on-site test at SpaceX headquarters.

TIMELINE



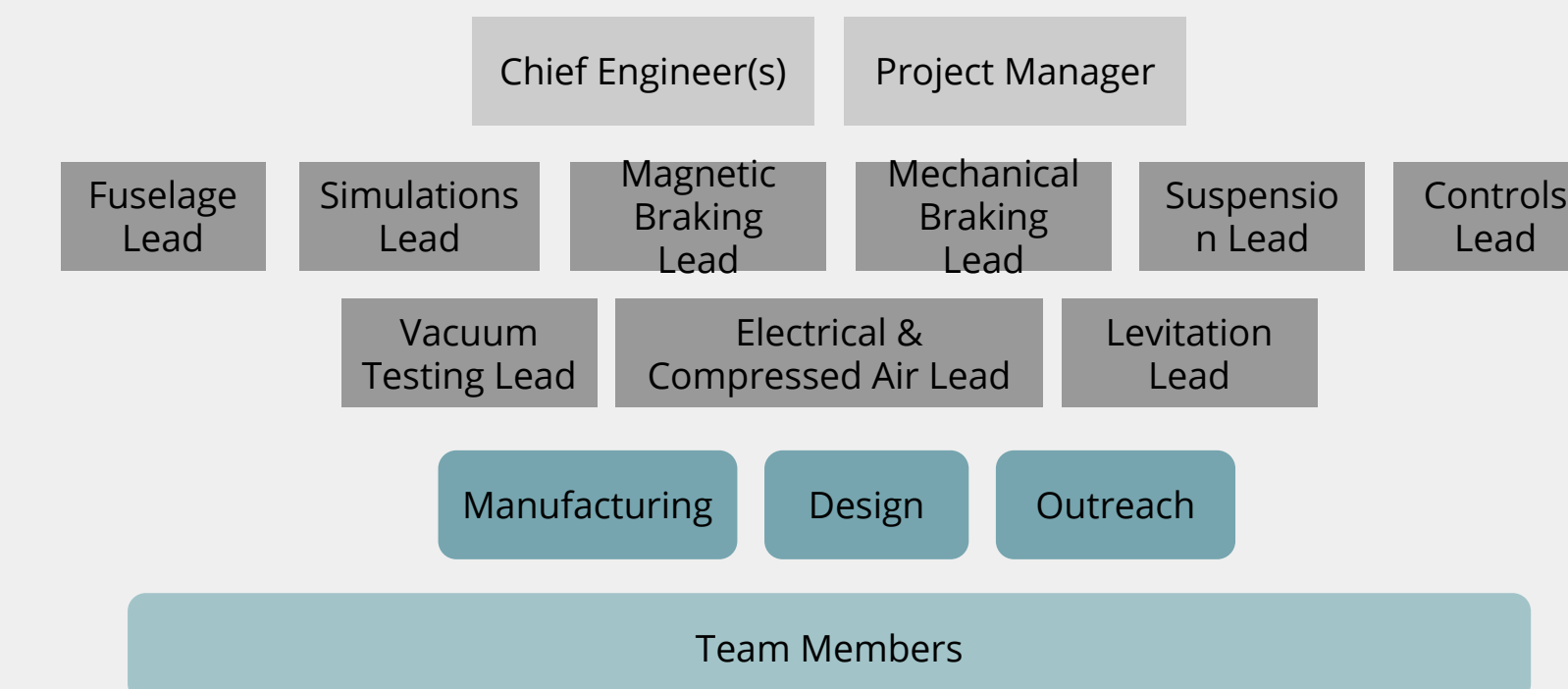
TEAM PHOTO



TEAM MEMBERS

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