FUTURE OF SUSTAINABLE AND AFFORDABLE TRANSPORTATION

OUR ACHIEVEMENTS

January 2016:
- Design Weekend #6 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

JULY 2019:
- SpaceX Competition IV Top 22 finalists

TEAM ORGANIZATION

MANAGEMENT
- Prof. Roger H. Rangel
  Faculty Advisor
  rhrangel@uci.edu
- Adora Tadros
  Graduate Advisor
  aatadros@uci.edu

ADVISORS

- Johnny Pham (quyp@uci.edu)
- Daniella Jimenez (dgjimene@uci.edu)
- Susie Nguyen (susietn@uci.edu)

BACKGROUND
Established in 2015, HyperXite is a team of undergraduate students endeavoring to build a Hyperloop pod.

GOAL
HyperXite’s goal is to research, design, build and validate a scalable self-propelled pod to demonstrate the feasibility of Hyperloop design concepts at a high pace of innovation.

OBJECTIVES
- Real time pod behavior monitoring
- Pod-state data logging for comparison against models
- Complete a safe pod run on test track

TIMELINE

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<tr>
<th>Pod Generation 1 CAD</th>
<th>January 4, 2020</th>
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<tr>
<td>Simulations Completed</td>
<td>January 17, 2020</td>
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<td>Pod Generation 2 CAD</td>
<td>January 24, 2020</td>
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<tr>
<td>Procurement and Manufacturing</td>
<td>February 14, 2020</td>
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<tr>
<td>Pod Assembly</td>
<td>February 28, 2020</td>
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<td>Functional Testing</td>
<td>March 13, 2020</td>
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<td>Testing Ramp-up</td>
<td>April 24, 2020</td>
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<td>Design and Manufacturing Updates</td>
<td>May 15, 2020</td>
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<td>Final Pod Report</td>
<td>May 22, 2020</td>
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<td>Final Testing</td>
<td>June 5, 2020</td>
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TOTAL POD COST

- Dynamic Structures: 35.9%
- Static Structures: 17.1%
- Power Systems: 30.3%
- Pneumatics: 5.1%
- Braking: 11.1%

TEAM ORGANIZATION

Dylan Villalpando
Lateral Stabilization

Topside Stabilization

Lateral Stabilization

Underside Stabilization

Propulsion Assembly

Braking Assembly

Chassis

Johnny Pham (quyp@uci.edu) Daniella Jimenez (dgjimene@uci.edu) Susie Nguyen (susietn@uci.edu)