

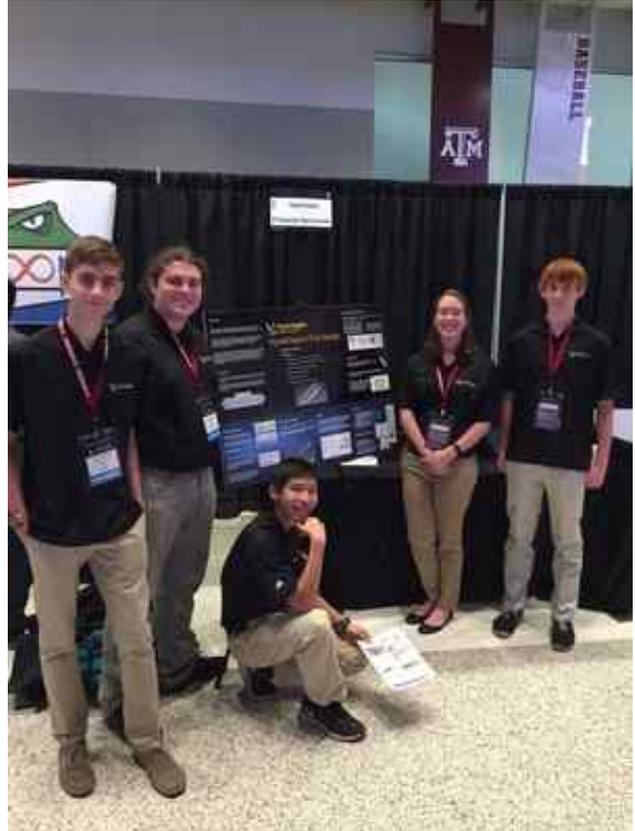
El Segundo High School students take pod prototype to SpaceX hyperloop contest in Texas

By [Megan Barnes](#), *Daily Breeze* | Jan. 29, 2016

For the past five months, a group of El Segundo High School students have been designing a futuristic pod that could someday take passengers from Los Angeles to San Francisco in less than 30 minutes on a proposed hyperloop envisioned by SpaceX founder Elon Musk.

The HyperEagles — made up of seniors Henry Smith, Luke St. Regis, Julia Taylor, Oliver Chen and Gavin Glynn — are one of only three high school teams from across the country chosen by SpaceX to compete at Texas A&M University this weekend for a chance to have their prototype built and tested on a [nearly one-mile track in Hawthorne](#) this summer.

The pods would travel in a vacuum-sealed, 6-foot-diameter tube made of steel, blasting passengers at speeds of up to 760 mph. **EI**



The other 120 teams at the [SpaceX Hyperloop Pod Design Competition](#) on Friday and Saturday in College Station, Texas, are from universities around the world. In all, more than 1,000 students from 26 states and 20 countries are participating.

El Segundo High School teacher Steven Eno said it is a “joy” to see his students of four years go to the competition.

“It’s been amazing to see them doing this grad-level work,” he said. “Everything has been their idea. I’m just there to get them through any roadblocks. It’s totally been their project.”

The project is the students’ capstone project for their senior Engineering Pathway class.

Key to their design, Eno said, is a custom compressor at the front of the pod designed to manage air resistance at very high speeds.

“That’s what I’m hoping will set them apart,” he said.

Though the pods would carry 10 to 15 passengers, the smaller-scale prototype used to test the technology is designed to fit one or two people.

Glynn said the HyperEagles put safety ahead of speed when designing their pod, which would be made of lightweight composite material similar to that used on aircraft.

“It’s the most important part of the pod,” he said. “We’d like to get our passengers to the end safely rather than go as fast as possible, and we’ve tried to diversify our types of braking methods.”

They also added sensors to keep the pod on track and distributed battery cells instead of having one centralized battery block, thus eliminating a potential point of failure.

The teens will give a 20-minute PowerPoint presentation to a panel of judges, who will then ask questions about the design.

But it won’t be only the judges they’ll be trying to impress.

The teams are also competing for coveted sponsorships from private companies looking for designs to build and test on the track.

“The cost to get in the competition is free; however, in order to build a pod it’s around \$100,000,” Eno said. “To build a full-scale one would be in the high hundreds of thousands of dollars range.”

The winning teams will be announced Saturday at 4:15 p.m.

St. Regis said he isn’t necessarily intimidated being judged on the same level as college students.

“It feels pretty good,” he said. “We’re sort of expecting some of the teams to have more work than us because they have more resources, but we know our own submission is judged on the same criteria.”

The experience has been especially rewarding, the students said, because it isn’t solely academic.

They don’t yet know where they’ll be going to college in the fall, but want to be different types of engineers.

“Working in a classroom environment is good for learning and memorizing facts and stuff, but what this project has shown us is that the real hands-on application of everything we learn in school is immensely more important,” Smith said.

“We want to be an inspiration for students our age who are looking to do something big as engineers in school.”

Photo: Segundo High School seniors Luke St. Regis, Henry Smith, Oliver Chen, Julia Taylor and Gavin Glynn with their design entry at SpaceX's Hyperloop competition at Texas A&M University. Twitter photo

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