

Los Altos Academy of Engineering

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Building a Cleaner and More Fuel Efficient Tomorrow



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Planning for the Electric Vehicle Challenge

Written by: Presley Campbell, Jose Espinoza, Elam Chalberg

The Los Altos Academy of Engineering intends to participate in the Electric Vehicle Challenge (EV Challenge). In 2024, out of a field of 25 vehicles, Spectre placed 8th, while Volt placed 5th, giving us room to grow. This year, the LAEE is planning on conducting many tests for Volt and Spectre in order to increase their efficiency. That includes testing different batteries, tires, bearings, and many more parts in order to figure out which combination will be the best suited for the next EV Challenge. The EV Challenge will be taking place on May 3rd at Saddleback College from 9am to 3pm.

Our Electrical team had a major success in the 2024 EV Challenge. With the restoration of an older EV, Volt, we now compete with two vehicles. Although we had a major success, Spectre still had many bugs to fix, for example, the throttle we had was very

inconsistent and gave us different results every time it was used. Our goal is to have both vehicles in peak condition by the next competition.

For the majority of Fall semester, Mechanical has focused on repairing and fine-tuning the cars. One of the main tasks involved is aligning the wheels so they face straight, ensuring they would roll smoothly. We also worked on fabricating some custom discs designed to prevent the chain from slipping off during operation. After making a few more adjustments, we were able to reduce the noise significantly. It's been a productive semester, and we've made great strides in improving the performance and reliability of our vehicles.



This year there are a few big things that composites needs to fix on the vehicles. Spectre needs a lot of attention in the composites department. The body has a tendency to concave. In order to correct this, we are attempting to design and build an internal structure that the body can rest on. This will prevent cracks and bends that could form on the body of the car. Overall, Spectre has many problems that need to be attended to, thus our main goal is to have Spectre near perfect by the end of March.



What's New in the Congressional App Challenge

Written by: Grayden Eriksen, Abraham Navarro, Oraldo Lozoya

This year, the Los Altos Academy of Engineering is participating in the Congressional App Challenge in the 38th Congressional District of California under Congresswoman Linda T. Sanchez. The goal of the competition is to have competing students develop and submit apps that seek to solve real-world problems. Our IT team decided to participate in one group, consisting of sophomores Oraldo Lozoya and Carlos Vallejo, junior Abraham Navarro, and senior Grayden Eriksen. Their collaboration resulted in their app, FireFavor.

FireFavor is an informational app which targets California residents in order to directly and concisely provide them with the knowledge and resources to prepare for wildfires. It was inspired by two recent major wildfires in Southern California, the Line Fire and Bridge Fire. Eriksen

explains, “It is our team’s hope that FireFavor demonstrates the importance of being aware of available resources for wildfire preparation. These resources exist, but are spread out, and are relatively unknown among California residents. We hope our app acts as a comprehensive means of organizing these resources.”



Our team began participation in the app challenge relatively late into the year. Because of this, they faced major time limitations in ensuring they could complete and submit their app on time. “Because of much of our team’s limited experience with the app challenge, we decided to use Thinkable to develop our app, which was both simple enough to minimize time spent learning while capable enough to accomplish what we wanted,”

stated Eriksen. “Our primary goal in competing this year was just that—to have a competing team and to give that team the experience they need in the Congressional App Challenge for future years.”

Information Technology fully submitted their application on October 23rd. Judging will take place over the month of November, and the winners and awards ceremony will take place some time in December.





Remembering Mr. Franz



Robert Franz was an empowering mentor, educator, and advisor for the Los Altos Academy of Engineering. He had a passion for technology and engineering and has been with the program since founding it in 1989. Robert Franz believed in the potential of students, inspiring them to think critically and creatively to reach their ambitions. He has guided students in the Los Altos Academy of Engineering ever since its first competition in the Phoenix Solar Electric 500 all the way until his retirement in 2008, where he continued on to advise and inspire students elsewhere. The Los Altos Academy of Engineering will always remember Robert Franz and the impact he had on our students, alumni, advisors, and the spirit of success that continues in the program today.



Thank You Sponsors!

