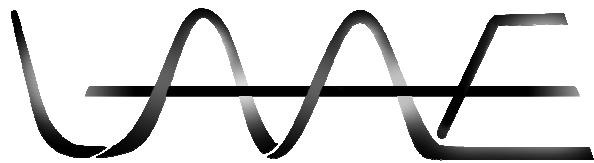


BUILDING A CLEANER, MORE
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Electric Pulse Going for Florida

LAAE prepares to travel 3000 miles to compete.

By: Derek Ho

Next year, the Los Altos Academy of Engineering plans to compete in the Emerald Coast Electrathon held in Pensacola, Florida. LAAE has developed a plan known as Project Pulse, an electric car that the team is currently constructing. LAAE has two primary goals for Project Pulse's performance in the Emerald Coast Electrathon. The first goal is to construct the car to run thirty miles in one hour. The second goal is to run as efficiently as possible by minimizing battery consumption.

LAAE previously competed in the Solar Electric 500 Electrathon at the Phoenix International Raceway in March 1993 and in the Pentad National Electrathon at the Cal State Dominguez Hills Velodrome in June 2000. As a result, electrical team leader Jeffrey Choi, declares, "We are going to improve. We are going to achieve better results than the teams of the 1993 and 2000 competitions. The technology we have is better than the technology that was had by the students of those two teams."

The car is designed to have three wheels, not only to meet the requirements of the competition, but also to lower the coefficient of rolling resistance. "In simple terms, the coefficient of rolling resistance is the friction which prevents the wheels from moving. By decreasing this coefficient, the vehicle will be able to run faster as there is less friction to slow the vehicle down," design



Remaking a wire for a prototype car

member Leon Liang explains.

"Now that all the materials have been gathered, our primary focus is to assemble the pieces and construct the Project Pulse vehicle," says mechanical member Tanner Owen. "We have made pretty good progress so far this year," design member, Darren Eng believes. "The members of the team will continue to work at a strong pace. Of all the projects the Los Altos Academy of Engineering has worked on, this one is no different." Go Project Pulse!

Advisory Triumphs

After weeks of planning, LAAE has finally pulled it off.

By: Adam Norris

On the night of December 15, 2011, the Los Altos Academy of Engineering held its annual advisory meeting, a conference where the LAAE invites professional engineers to critique the program so that students will be able to get a better grasp of real job experiences in the engineering field. In attendance were Richard Cheng, Laurie Marshall, Scott Loh, Scott Lee, Ivan Zelada, Eric Chang, James Watson, Ruben Seawright, Rudy Ybarra, Thomas Knipe, and David Kerkhoff. After a complete overview of the recent projects, the advisory board unanimously decided to continue the program.



Advisors settle down and wait for the Advisory Meeting to begin.

Immediately following the advisors' arrival, members of the LAAE provided the advisory board with a tour of the current projects and machine shop. After deliberation, the advisors agreed that the LAAE needs a cord that will be able to connect a computer to the computer numerical control machine that is programmed to cut metal so that LAAE can extend its use. Also discussed in the meeting were safety issues in the program's working environment. One brief issue concerning the batteries was brought up along with solutions to fix the problem. LAAE will need to clean off the discharging table more frequently as well as discharge the batteries more often. In addition, members of LAAE presented the current projects on which they were currently working, which included Project Pulse, Japanese American Optimist Essay and Oratorical Contest, First Tech Competition, Pete Conrad Spirit of Innovation Competition, and Mini Darpa Urban Challenge.

Immediately following, the advisors then concluded a successful advisory meeting and all look forward to seeing the progress and achievements of the program next year, and many years into the future. As design team member Angel Turcio put it, "Hard work pays off, so work hard."

From Thoughts to Paper

By: Teresa Chen

LAAE Students Win Essay Scholarship

For several years, the LAAE has encouraged its members to pursue excellent writing skills. As a result, many students from the program have participated in the Japanese American Optimist Essay Contest, an annual competition for students to win scholarship opportunities. Four LAAE members who participated in the 2012 JAO Essay Contest were awarded first place, second place, third place, and honorable mention medals.

For the competition, participants were required to write an essay on a specified topic and elaborate with personal examples. The official topic for the 2012 competition was “How My Positive Outlook Benefits My Community”, which encouraged students to describe how their positive life philosophies have affected their communities. Third place winner Michael Chang and honorable mention



(From left to right) Alisa Smanpongse (10th), Ashley Ho (10th), and Michael Chang (9th) pose for a quick picture after describing their essay contest experience.

winner Jocelyn Liu described how simple gestures each day could strengthen individual relationships and team dynamics in work environments. Both students found the essay competition to be an unexpected challenge. “I thought it was actually really fun,” Chang said. “The prompt seemed deceptively simple, but it wasn’t. When I began writing, the essay started to reflect on my life and my personal values.”

Ashley Ho, the second place winner, wrote about how her optimistic mindset for success has influenced many aspects of her life. “So many people miss the details of life,” Ho comments. “I choose to cherish them instead because I think that appreciating the small things makes us more confident to look to the future for better opportunities.” Along with the first place medal, Alisa Smanpongse was awarded a scholarship for her profoundly powerful essay which explained how her passion and vivacity were integral for her involvement in the activities for the Los Altos Ecology Club. “I was really flattered when Mr. Richter announced that I won,” Smanpongse remarks. “I hope that my experiences will help others understand just how significant a positive attitude is.”

New Challenges

LAAE robotics team enters first FTC competition

by: Shirley Yañez

This year the Los Altos Academy of Engineering robotics team entered the First Tech Challenge competition. It was an opportunity for them to use their creativity to build a robot. Team members Marcos Avila, Samuel Chia, Kimberly Hsu, Nicholas Pung, Jerry Wang, and Ivan Wang attended the event at Monrovia High School on December 10, 2011. The team placed third in points scored and finished eleventh out of seventeen overall.

The First Tech Challenge focuses on two main points: how well the team assembles a robot and how the team communicates. As the teams compete, they then advance one by one to the next round. When the top four teams are chosen, those teams have the opportunity to select a group to compete with them. This is when communication plays a big role in the competition. By interacting with other teams, the teams that don't advance get a second chance to win.

Experienced groups informed the team with new techniques. Robotics team member Marcos Avila says, "We learned new programming skills, such as new variables." The team has to make some changes for next year's competition. The students had different time schedules, so they did not communicate effectively. Next year's team plans to solve this problem by having a meeting to discuss what concept they are going to use for their robot. "We have a clear idea about what we need to do to in order to succeed next year," says robotics team member Kimberly Hsu. "We are going to use the information we acquired this year to have a big impact on the competition next year."

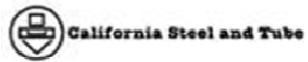


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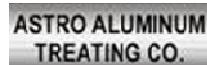
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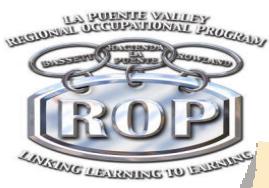
Staff Writers:

Teresa Chen

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Upcoming Events:

~March 24:
California Regional
Mini-Urban
Challenge

~May 19:
7th Annual Open House;
Project Pulse Unveiled

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