



2014

THE LOS ALTOS ACADEMY OF ENGINEERING

SPONSORSHIP PACKET

Building a cleaner, more fuel efficient tomorrow

Dear Sponsor,

The Los Altos Academy of Engineering (LAAE) has been building and racing alternative energy vehicles since 1989. Since then, the technology used and race guidelines have changed, yet LAAE has been able to adapt, design, build, and race vehicles alongside many prestigious universities. LAAE is significantly unique because of its dedicated high school students. Through all of the projects LAAE develops, students involved gain valuable hands-on experience that is unavailable at any other high school in the United States. Students are able to gain electrical, mechanical, composite, design, programming and public relation skills through our program.

In order to turn our vision into reality, we rely on the help and generosity of corporate partners and sponsors who understand and encourage our aspirations to implement the concepts learned in the traditional classroom setting. Your support will directly contribute to the success of our program. The building of energy efficient, clean air vehicles requires monetary and in-kind gift donations to be successful and to achieve our program's goals. Although the experience for the high school students is invaluable, sponsors benefit as well. Sponsors are promoted extensively by media publicity and coverage, not only in our local community but globally as well. The LAAE is a one-of-a-kind educational and career preparatory program to promote alternative energy.

This sponsorship packet describes who we are and what we do, as well as the assistance we seek in achieving our goals. We hope that you can share our vision and support us in turning our goal into reality.

Sincerely,



Los Altos Academy of Engineering

HISTORY

The Los Altos Academy of Engineering (LAAE) is an unique high school program that was founded in 1989 by Mr. Robert Franz at Los Altos High School. The mission of LAAE is to establish effective opportunities in mathematics, science, computer science, and mechanical or electrical engineering for students who demonstrate an early interest in these technical career areas. LAAE is currently a joint venture between the Hacienda La Puente Unified School District and the La Puente Valley Regional Occupation Program. Many of the projects adopted by the LAAE are highly complex and are completed solely by high school students.

Since the time of its establishment, the LAAE has had great success in its numerous intricate projects. The LAAE has participated in many solar vehicle challenges, both domestic and abroad. In 1996, the student-built Solar Shadow I competed in the World Solar Challenge in Australia and was the only high school team in the competition to finish the race. In 2001, students built and raced another solar car, Solar Shadow II, in a cross-country race, the American Solar Challenge. Besides being the only high school that entered the race from Chicago to Los Angeles, LAAE finished 22 out of 30 overall participants.

Besides participating in solar car challenges, LAAE has also taken on many other diverse projects and competitions. The LAAE Botball team has received much prestigious recognition. In recent years LAAE's Botball team has done remarkably well, sweeping the regional competition and competing in the national competition. The most successful project of all LAAE's history has been the Build Your Dream Vehicle (BYDV) competition. The LAAE BYDV team defeated 320 other entries and became the only high school to win back-to-back national championships in 2005 and 2006, a tremendous accomplishment. However, perhaps the most sophisticated and complex project that the LAAE has undertaken is the hydrogen fuel cell vehicle, *Infusion*. The first step of this great endeavor was made in 2001 when ambitious students designed an aerodynamic tear-drop shaped vehicle. The car is now fully completed and can operate on hydrogen. Among all of these prestigious projects lies Solar Boat which has competed in Solar Cup since 2003.

LAAE has many ambitious goals and new projects each year. LAAE's first competition is the California Challenge in Irvine. This will also be the second year that it competes in the Emerald Coast Electrathon in Pensacola, Florida. The students intend to bring 20 year-running Speed Racer, new car Volt, and new electric vehicle Omega. Students within the program are also participating in new robotics competitions such as

Vehicles



Speed Racer

- First electrathon vehicle
- Competed in Solar Electric 500
- Competed in California Challenge
- Competing in 2014 Emerald Coast Electrathon

1993

Cool Runnings

- First solar vehicle
- Received First Place in the first Winston Solar Challenge

1995



Solar Shadow

- Completed the World Solar Challenge in Australia
- Received First Place in the Winston Solar Challenge.

1996

Light Speed I

- Set a national speed record of 100 km in 2:21 hrs at Solar BikeRayce USA

1998



Vehicles



High Voltage

- Most intricate paint job
- Competed in Pentad Nationals Cal State Dominguez Hills Velodrome

2000

Light Speed II

- Most efficient solar vehicle utilizing an exclusive wheel motor
- Average speed of 42 MPH

2000



Solar Shadow II & III

- Only high school built vehicle completing the American Solar Challenge
- Competed in the Solar BikeRayce

2001

Light Speed III

- Won national championship in Solar BikeRayce

2003



Vehicles



Solar Boat

- ◆ Placed 15th out of 40
- ◆ One of the few highschools participating in the competition
- ◆ Competed in Solar Cup

2011

Pulse

- ◆ Completely made from scratch
- ◆ Competed in 2013 Emerald Coast Electrathon
- ◆ Competed in California Challenge

2013



Volt

- ◆ Blue Sky kit car
- ◆ Competing in 2014 Emerald Coast Electrathon

2014

Omega

- ◆ Competing in 2014 Emerald Coast Electrathon
- ◆ Made entirely from scratch

2014

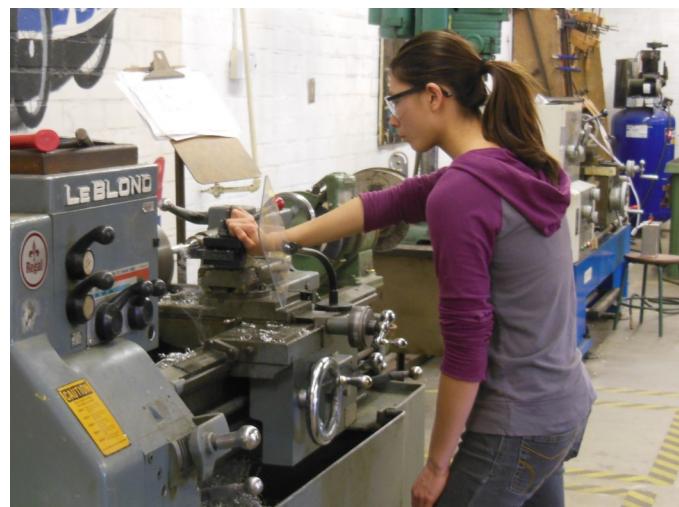


The number of projects and competitions that the LAAE is involved in requires significant funding. Competitions our students participate in are not fully sponsored; therefore, LAAE must raise funds to purchase the needed equipment and materials to allow our students to participate in a tradition of excellence. You can be a part of this great program by helping us achieve our goals. The following is a list of several activities that the LAAE will participate in this year:

- ◆ Emerald Coast Electrathon
- ◆ California Challenge
- ◆ Mini Urban Challenge
- ◆ First Tech Challenge
- ◆ Adopt-An-Engineer Fundraiser

In order to continue our mission, LAAE continually seeks support through corporate sponsorships, resource sharing, and individual donations. Even with dedicated students, great designs, and years of history, our success can only be continued with your help, either through monetary or in-kind gift donations.

By sponsoring LAAE, you or your corporation will gain valuable visibility while making a tax-deductible contribution to a team committed to promoting environmental awareness and superior engineering. We look forward to working with you in the future!



Projects

Emerald Coast Electrathon

In 2013, LAAE brought newly created electric vehicle Pulse and 20 year veteran Speed Racer to the Emerald Coast Electrathon in Pensacola, Florida. LAAE aimed to maximize their vehicle's efficiency by keeping a constant speed of 30 miles in an hour. LAAE had also re-established a fundraising committee for the sake of raising \$10,000 for the race. Because of the newly earned knowledge of the Emerald Coast Electrathon, students at LAAE have decided to race in the 2014 Emerald Coast Electrathon. The students plan to bring Omega, a newly fabricated electric vehicle, Volt, a new car, and 20 year veteran Speed Racer to the competition.



Mini Urban Challenge

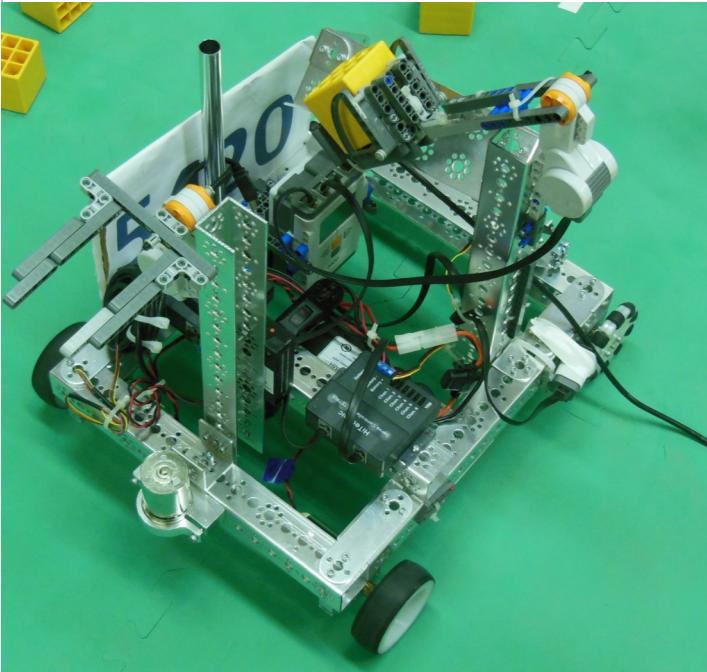
MUC is a robotics competition that requires students to build and program an autonomous robot to navigate through a scale LEGO city. This is the third year the students have competed in the Mini Urban Challenge. In the past, they have won second place twice at Regionals, thus advancing the team to the National level competition in Washington, D.C.



California Challenge

California Challenge took place in October 4-6 in Irvine, California. Teams from several colleges and high schools were able to race their electric, diesel, or solar vehicles in this competition. The goal of the competition was to determine a vehicle's highest point of fuel efficiency. Students of every team faced 50 mile per hour winds in the Orange County Great Park Balloon and Visitors Center. LAAE students brought Pulse and Speed Racer to this competition.

Projects



First Tech Challenge

This is the third year that robotics has competed in FTC. Each participating team is required to build and program a robot to perform specific tasks on the field. The first 30 seconds of the round requires autonomous functions and infrared sensors. The second half of the competition consists of taking command of the robot through game controllers. Each year, the competition changes. It has changed from Bowled Over featuring bowling balls to Ring It Up with plastic disks. This year the objective is Block Party which features small pvc blocks that must be placed on a scale. The LAAE robotics team recently won 1st place in the regional competition for FTC.

Adopt-An-Engineer Fundraiser

The Adopt-An-Engineer fundraiser is a program that LAAE has decided to use in order to raise \$10,000 for the Emerald Coast Electrathon. This involves creating a fundraising committee to present to local service programs and sponsors. Each student of LAAE also goes out to the community to collect donations. Last year, one of LAAE's biggest donations, \$5,000 came from Dickie Simmons, representative of Don Knabe of the fourth district of Los Angeles County. This year, LAAE plans to bring three electric vehicles and 10 LAAE students to the Emerald Coast Electrathon. The calculated cost for transportation, lodging, fuel, and other amenities is \$11,000. Therefore LAAE is once again using the Adopt-An-Engineer fundraiser to raise these funds.

LOS ALTOS ACADEMY OF ENGINEERING

ADOPT-AN-ENGINEER PROGRAM

pr@lasv.org

✉ 15325 E. Los Robles Ave. Hacienda Heights, CA 91745 ☎ (626) 330-1096

This year, the Los Altos Academy of Engineering has decided to once again participate in the Emerald Coast Electrathon. We intend to race Speed Racer as well as two new electric vehicles Volt and Omega. Since the competition will be in Florida, we will need funds of roughly \$11,000 to cover the expenses. Starting at \$10, you can support us by “adopting” a Los Altos High School engineer. As an “Adopt-An-Engineer” sponsor, we will include your personal message of fifteen words or less in the upcoming newsletter. Our newsletters will inform you of our recent activities as well as add your own personal touch. As a result of your generosity, we will be able to fund this year’s project and travel expenses.

Name of Engineer Being Adopted:

Date:

Name of Adopter:

Date:

Address:

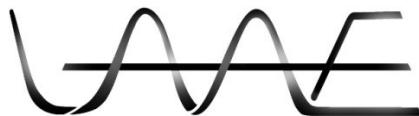
Email:

Message (15 words or less, please):

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Please make checks payable to Los Altos Academy of Engineering Booster Club.

Tax ID: 27-0111547



Sponsorship levels

To distinguish your contribution, LAAE has established sponsorship rewards and incentives, described in the chart below.

Benefits

Sponsor contact added to the official LAAE mailing list

Sponsor logo featured on LAAE website

Sponsor logo placed on one of the electric vehicles competing in the 2014 Emerald Coast Electrathon

Sponsor logo added to the LAAE monthly newsletter

Personalized thank you card from the Los Altos Academy of Engineering

Contact us



Contact:

Kimberly Hsu
Public Relations Team Leader
Email: pr@lasv.org

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Los Altos High School
15325 E. Los Robles Avenue
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Phone Number: (626) 330-1096

Los Altos Academy of Engineering Booster Club Tax ID: 27-0111547

Advisors:

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