O ISSUE 1 | O VOLUME 23 | O FEB 2006

Los Altos Academy of Engineering

BUILDING A CLEANER, MORE FUEL EFFICIENT TOMMOROW

focus

A New Year

By: Helena Xu

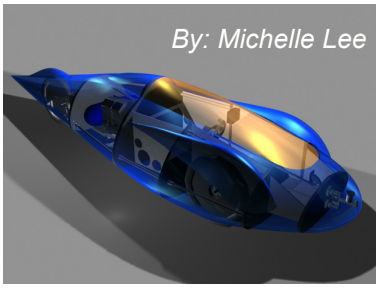
The Mechanical team has always served as a consistent and stable backbone for the Los Altos Academy of Engineering. Hardworking and persistent, the Mechanical team members have no doubt contributed greatly to the progress and success of the program. The Mechanical team is responsible for the construction of the chassis, brake system, and suspension of our solar cars while implementing a knowledge in welding, and industrial machinery. Nearing their completion of the dragster, the mechanical team has been working diligently completing the many projects LAAE takes on. One thing is undeniable; the mechanical team members have had outstanding attendance throughout the years. The mechanical team, throughout the years, has reigned as the team with the best workday attendance. Not only are the tasks the mechanical team take on intricate and extremely difficult, they are also some of the more dangerous procedures. The mechanical team members are all responsible for adhering to the many safety rules that remain vital to the academy. After all, the Mechanical Team is our largest group this year consisting of thirteen members:

Steven Agalsoff, Matthew Castaneda, Scott Lee, Scott Loh, Daniel Metchkoff, Dustin O'neil, Jerry Poon, Ray Raya, Jonathan Reyes, Richard Rivera Jordan Rozsa, Brett Wiltz, & Kari Wong

Coincidentally, the mechanical team is typically a male populated team. Kari Wong, the only female in this year's team, says "Being on the mechanical team has been such an awesome experience for me. I don't even mind being the only female on the team since the guys are nice to me." In LAAE, the mechanical team has been known as a strong force of students with a combination of talent and dedication.

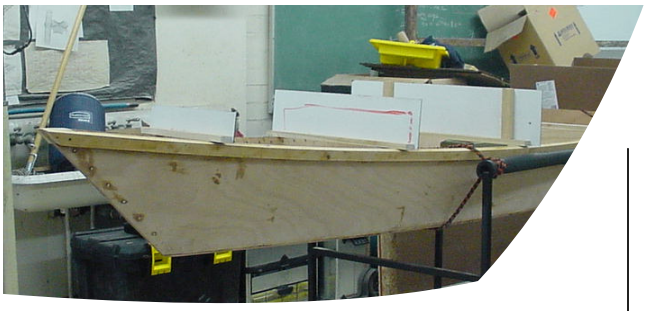
Mechanical team member Steven Agalsoff, senior, is totally excited about the upcoming events and projects of the Los Altos Academy of Engineering.

THE INFUSION



By: Michelle Lee

Infusion, our hydrogen fuel cell vehicle, is near completion after three challenging years of hard work! This year our composites team consists of five members, Adam Cardenas (team leader), Neil Chang, Andy Chen, Terrell Coleman, and Eugene Kim. With the assistance of Chris Liu, senior and member of the Los Altos Academy of Engineering, they have been consistently attending Cerritos College, three days a week, working on Infusion. Our academy recently received a donation of about five gallons of resin from the "Reichold" Company and will be starting the Infusion process very soon. As last year's composites team began the "female" mold of our infusion (the plug), our new composites team led by Adam Cardenas has finished this mold and is now ready to begin the long process of fiberglass layering. With the help of our teachers, Mr. Franz and Mr. Kierns, the composites team is now deciding how many layers the mold will consist of and calculating the last details. With approximately three weeks left before completion, 2006 is the year that the Hydrogen Fuel Cell Vehicle project will finally be completed! For the past three years, our composites teams have been working diligently on this project and now everyone's hard work will pay off!



Solar Boat '06: Team Leviathan

By: Desiree Magat

The goal of the 2006 Solar Boat team is to build the lightest, fastest electric and solar powered boat to compete in the upcoming 2006 Solar Cup Competition. The project is funded by a generous donation of $3,000 from the Upper San Gabriel Municipal Water District. For the past few weeks the team has been working diligently to meet the goals it has set.

This year's team is named Leviathan. This name was chosen because the Leviathan was a legendary sea creature that sank ships by swimming quickly around them to create a powerful whirlpool. Like the mythical Leviathan, the team is vigorous and strong—a team that will sink all other competition.

Last December, members of the team attended a boat building workshop at the Three Valleys Municipal Water District. They constructed the rudimentary hull of the boat, which took much team effort and perseverance. Thanks to past experience, however, they managed to finish building the boat nearly two hours before the workshop ended and headed home early.

This year, the Solar Boat team decided that it would be in their best interest to construct at least one of the solar panels on the boat by utilizing the newly-acquired Unitek machine thanks to the HLPUSD. This would provide hands-on experience and improve the overall understanding of how solar energy actually works. The team designed and assembled the solar array and then submitted their ideas to the Metropolitan Water District through a requisite report.

The team has also worked on other components pertaining to the boat. It has been researching and building the electrical aspects, the drive train, and the steering systems. The team is kept aware of progress and changes relative to the project through weekly meetings. Team Leviathan is looking forward to another challenging and successful year. Special thanks to Mr. Ralph Stenberg for his constant advice and guidance.

BYDV, Building Our Dream

By: Giselle Obregon

For the 2006 Build Your Dream Vehicle (BYDV) competition, the Los Altos High School BYDV team, Dynamic Innovations, has completely changed its direction. The 2006 Build Your Dream Vehicle case study calls for an environmentally conscious vehicle that gets no lower than 50 miles per gallon. This is in contrast to last year's case study of designing a limited edition vehicle of an already existing vehicle that would be "so hot it makes your eyes sweat." In 2005, Dynamic Innovations brought home the first place grand prize of $6,000 from the National Competition in Pontiac, Michigan, with the limited edition vehicle, the Dodge Neon Rally Option. For this year's competition, Dynamic Innovations plans to create a luxury hybrid vehicle for Chrysler. This vehicle would embody Chrysler's vision of class and upper-end style as well as help keep Chrysler in the running against Toyota and Honda, whose hybrid vehicles have been doing exceptionally well in recent years. The team is working diligently in an effort to meet the March 1st deadline for the preliminary competition. This year's team consists of seniors Helena Xu, Giselle Obregón, Christopher Liu, Kari Wong, David Tseng, Evan Kwan, and Eric L. Huang; juniors Desiree Magat, Ann Chong, Christopher Chang, James Huang, and Margarette Jung; and sophomores Christopher Wong, and Lydia Wei.

Thanks to Mr. Mitch Kodama for continuing to sponsor our BYDV team!

Please visit our website!
www.lasv.org

Scholars of the Academy

The Los Altos Academy of Engineering is very proud of its "engineers" who have made great accomplishments greatly in academics as well as our Academy. The following students were able to maintain outstanding grades while dedicating enormous amounts of time to our Academy.

One Year School Scholar
Eugene Kim
Raymond S. Raya

Two Year School Scholar
Christopher Chang

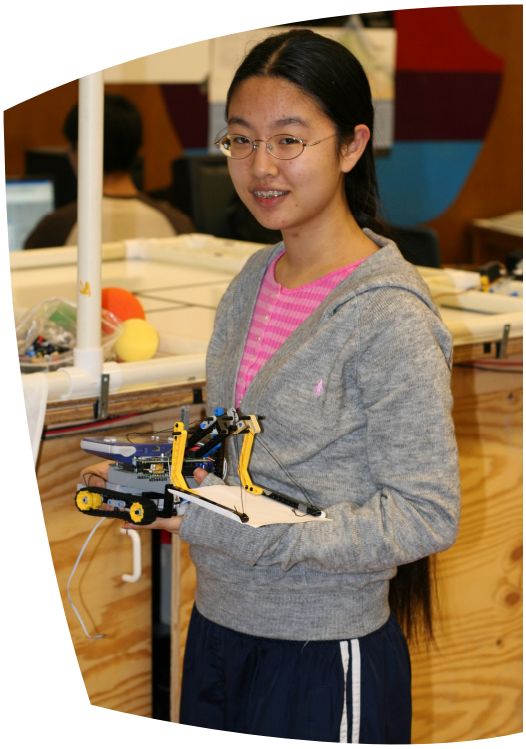
One Year District Scholar
Hiroshi Chen
Constantine S. Chen
Ted Ping-Chuan Wang
Lydia Wei

Two Year District Scholar
Ann Crystal Chong
Margarette Jung
Evan Kwan
Scott J. Lee
Scott Loh
Desiree Magat
Aaron M. Norris
Jerry Poon
Brett Wiltz
Helena Xu
Sophia Yang

Three Year District Scholar
Steven A. Agalsoff
Jerry Chan
Cliff Hon Wai Fung
Justin Hsieh
Eric L. Huang
Michelle J. Lee
Christopher Liu
Aaron Mayeda
Robert S. Navarro
Giselle M. Obregón
David Tseng
Kari D. Wong
Peter Yi Qin Xu

Get Ready to Program

By: Aaron Mayeda



The robotics team kicked off their robotics competition, Botball, on January 29th, 2006. This year's competition is very complex and requires the use of many sensors. There are three different colored cotton balls scattered on the floor. The teams have to build a robot that can collect these cotton balls and sort them into three different containers according to color. Also there are three different colored balls that sit on top of a shelf that is about fifteen inches high. The team's robot has to expand to reach the balls and still be able to put them in their proper colored container. The final aspect of this competition is retrieving a plush toy called Botguy that sits on a four-foot-tall platform. Luckily, the platform swings like a pendulum but the task of catching Botguy as he falls is very difficult. The Academy is proud to send two teams to this year's competition ,which will be held in San Diego on March 18, 2006. The teams are ahead of schedule and plan to meet their goal of having both teams place in the top three.

This year's team consists of: Aaron Mayeda, Cliff Fung, Clara Lee, Alex Venturoso, Ted Wang, Owen Wang, Chris Valencia, Constantine Chen, Eric Ren, and Isaac Lin.

Back Row From Left to Right: Diego Hinojosa, Adam Cardenas, Ray Raya, Eric L. Huang, Justin Hsieh, Jordan Rozsa, Neil Chang, Jerry Chan, Jonathan Reyes, Aaron Norris, David Tseng, Chris Liu, Steven Agalsoff, James Huang, Steven Garay. **Middle Row From Left to Right:** Dustin O'Neill, Scott Lee, Andy Chen, Hiroshi Chen, Eugene Kim, Matt Castaneda, Aaron Mayeda, Richard Rivera, Evan Kwan, Cliff Fung, Scott Loh, Jerry Poon, Chris Chang. **Front Row from Left to Right:** Michelle Lee, Kari Wong, Ann Chong, Clara Lee, Stephanie Rodriguez, Giselle Obregon, and Helena Xu.

How can you help?

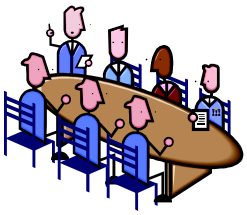
By: Chris Chang

Ways to help the Los Altos Academy of Engineering

Whether you are a parent, sibling, friend, or sponsor of the Los Altos Academy of Engineering, there are several ways you can help. The Academy of Engineering thrives on the continued support of all its sponsors. However, new sponsors are much appreciated and should keep in mind that all donations are tax-deductible. All types of donations are acceptable. Not all donations must be monetary. You can donate anything you feel will be beneficial to our Academy. Any of the following donations would be greatly appreciated:

- **Food:** Our "engineers" work very hard to make this program work. Please bring in any type of snacks or prepare lunches for our Saturday workdays that can help us feed our "engineers".
- **Monetary Valued Donations:** Any type of donation that can be applied towards our projects and our Academy is greatly appreciated.
- **Volunteer:** Volunteers are always greatly needed. We are always in need of people to set up events such as open house or the fuel cell rollout.

If you would like to help the Los Altos Academy of Engineering, please contact us directly at laae.pr@gmail.com. You can used the attached donation form if you would like to make a monetary donation. Thanks again!



The Los Altos Academy of Engineering Booster Club would like to invite you to join! If you are interested in being part of the Booster Club or have any questions, please contact the Booster Club directly at laae2004@yahoo.com

The Los Altos Academy of Engineering will be hosting it's annual open house on **April 22nd, 2006**. An optional luncheon will be $10. Please contact us at (626) 330-1096 for more information.

The Los Altos Academy of Engineering would appreciate all types of donations. Please contact our booster club if you would like to donate. All donations are tax-deductible.

If you are interested in visiting the Los Altos Academy of Engineering during our work hours, you are more than welcome to. The following is our work schedule, which is subject to change. Please contact us at (626) 330-1096 to reserve a visitation.

During School Hours:

Mon-Fri	11:36AM-12:33PM

Afterschool:

Mon-Thurs	3:30PM-6:30PM
Sat	8:00AM-12:00PM

We would like to thank all of our sponsors. Without them, we would not be as successful as we are today. We appreciate your continued support in our program.

Open House 2006 Sponsors:

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