

**Manufacturing Technology
Annual Advisory Committee Meeting Agenda
November 14, 2006, Los Altos High School**

6:00PM-6:30PM tour of facilities- Students from the class explain current projects

1. Meeting called to order: Meeting called to order at 6:41PM

2. Introduction

a. Meeting Chairman Nomination: Tom Knipe

b. Introduction of Members in Attendance:

Mike	Merchant	Pharmacy Analytical Services-Alumni
Tom	Knipe	Southern California Edison- Electric Transportation
Nikki	Kodama	Northrop Grumman-Alumni
Mitch	Kodama	Retired Engineer
Kenji	Mayeda	Health HAZMAT
Will	Zheng	JPL-Alumni
Jonathan	Embler	The Boeing Company-Alumni
Suk	Chong	LADPW
Robert	Franz	La Puente Valley ROP-teacher
Ed	Richter	La Puente Valley ROP-teacher
Stanley	Chu	North Mary Capital
David	Vedder	La Puente Valley ROP
Derek	Mayeda	AC Propulsion
Richard	Cheng	Universal Space Lines

3. Review of Previous Year's Minutes:

a. Approval of minutes: VOTE: Motioned to approve by Mike Merchant, second by John Embler

i. Minutes approved unanimously

ii.

4. Brief Overview of Projects

a. DARPA Urban Challenge

i. PowerPoint was presented to the Advisory Committee for approval and continuation to forward the project

1. Ann Chong, Clara Lee, and Lydia Wei gave PowerPoint presentation

2. DARPA Urban Challenge History and Objectives were given

a. Possible safety issues were discussed

b. DARPA Urban Challenge success was discussed

c. The concerns of safety and feasibility were discussed

d. Budgeting was a concern as well of the total cost of possibly \$200,000 plus

e. Equipments have already been purchased, financing is very important and discussed

- f. Manufacturing Technology needs to raise \$20,000 as soon as possible
- g. Significance of this project is that it is driven and directed by the Manufacturing Technology Alumni
- h. The course layout (GPS coordinates, course map) will be provided by the DARPA Organization
- i. Course layout will be scripted in the computer programming language, JAVA
- j. Fundraising ideas are needed to complete fundraising for the DARPA Urban Challenge, Adopt-a-cell has been successful for solar races, unfortunately, such a program can not be applied to the DARPA Urban Challenge
- k. Corporate fundraising is perfect timing, budget for corporate businesses close and therefore corporate donations should be filed as soon as possible
- l. Christmas wish lists from companies are very ideal; corporations are able to fulfill their excess inventory and supply
- m. Navteq and Garmin are GPS corporations that are able to be utilized for fundraising
- n. Timeline has not been proposed for the project, but a technical report is due in April
- o. Operational costs are discussed, if \$50,000 is achieved through the technical report, the \$50,000 will be ample for the "race" cost
- p. Caltech's vehicle was observed, it traveled a total of 8.4 miles
- q. Input for DARPA Urban Challenge is really appreciated, please forward all information
- r. Ideas for fundraising include having a continuous alumni support, and giving options
- s. Sponsorship level, hitting the alumni is the most important
- t. Having the alumni donate \$100 each may generate a lot of money
- u. Mr. Gunderson, Band Director, has insight into how money can be raised through a "raffle"
- b. Build Your Dream Vehicle
 - i. Notification of competition is yet to be released by the organization
 - 1. \$7000 from last year's funding has yet to be received, collection agency is being looked into to collect money
 - 2. Chrysler originally sponsored the competition, but as the years go on, many marketing and ad agencies have picked up the competition
- c. Solar boat
 - i. The LAEE is participating in the solar cup once again
 - 1. The goal is to build a boat with 2 motors and to achieve success in the sprint
 - 2. The boat will be built on December 9th, the first boat building session
 - 3. A new hull is required to be built at the same place and time
 - 4. There is no solar recharging allowed during the Solar Cup
 - 5. The Solar Cup has grown into 50 entries

6. Each team is provided with \$3000

d. Botball

- i. Due to budget restraints, Botball turned out as one Botball team and moved the focus onto Darpa as well as other projects in Manufacturing Technology
 - 1. A female chaperone would be greatly appreciated
 - 2. Botball is an unfunded project
 - a. Any input should be directed to Ed Richter
 - b. One Botball team will cost \$2800
 - c. In previous years, grants were received, unfortunately, in 2006, no grants were received

e. Middle School Robotics

- i. Middle School Robotics includes three other school districts
 - 1. La Puente Valley Regional Occupation Program is the new support and backbone of this project
 - 2. Edison has donated \$10,000 for this project
 - 3. The 2007 Middle School Robotics program expects 35 entries
 - 4. Competition will be held at the Industry Hills Expo Center

f. ZEV Challenge

- i. \$63,000 was received by the South Coast AQMD Clean Air Fuels Fund
 - 1. 15 schools will be funded for electric cars to be raced at Irwindale Speedway for a continuation of 3 years

g. Infusion

- i. The Infusion will most likely participate in the Shell Eco Challenge in April 13-15th at California Speedway in Fontana
 - 1. The Shell Eco Challenge is very ideal for Manufacturing Technology because it allows us to race a vehicle we built
 - 2. \$500 is awarded for transportation of vehicle to race site
 - 3. The Shell Eco Challenge has been run in European Countries
 - 4. The Shell Eco Challenge has restrictions and rules with a some what open rules
 - a. The Shell Eco Challenge was newly discovered
 - b. A rollout has not been announced
 - 5. The *Infusion* vehicle needs to be painted and a hinging system needs to be installed before full completion of vehicle
- ii. Safety Issues
 - 1. No impending safety issues were observed
 - a. Hydrogen vents are installed
 - b. Hydrogen sensors are also being purchased and installed
 - c. The drive compartment will also have sensors installed for safety
 - d. There have been no impending safety issues with the fuel cell despite purging the hydrogen
 - e. There have been wiring problems from the battery to the chassis

5. Safety Issues:

a. Equipment Status:

- i. Mechanical: New Snap-on tools, new air compressor
- ii. Electrical: New soldering iron

- iii. Composites: Installing vacuum pump pipelines and compressor pipelines
- b. No impending safety issues

6. Manufacturing Technology Program Review

- a. 5 students of the advisory committee came out of the Manufacturing Technology Program
- b. One employee at the Edison Electric Company was a former alumni from Manufacturing Technology; being an employee of ten years
- c. Alumni discuss the continuation of the program
- d. Testimonials are given by alumni who used the Manufacturing Technology program in their career paths

7. Project Proposals and Concerning Issues and Ideas

- a. Throughout projects, safety issues should be passed down year after year
 - i. The turnoff rate of kids is quite frequent, thus some documentation of significant safety issues should be in place to be passed down from year to year
 - ii. Having alumni come back to discuss safety issues is very important
 - iii. Safety issues are discussed every month by the advisor, Bob Franz
 - iv. Safety tests are still in place for the safety of the students
 - v. Incentives are given to students for safety

8. Closing Statements

- a. If Manufacturing Technology was to withdrawal from the BYDV program, what does Manufacturing Technology have to replace BYDV?
 - i. No other competition is believed to exist
 - ii. The BYDV program will be a difficult gap to fill because of its significance
 - iii. The BYDV program is an entry level program as well as Botball
 - 1. Many students in the engineering program come from the BYDV program
- b. 25% of Manufacturing Technology Students do not attend Los Altos High School by residency, but by preference
- c. What does the Public Relations team want to do with their future?
 - i. The Public Relations team needs to be increased in membership and team size
 - ii. In the future, the Public Relations team is very important to the program
 - iii. Recruitment for the Public Relations team come from Build Your Dream Vehicle
 - iv. Public Relations deals with a lot of community outreach, fundraising is completely separate from Public Relations
 - v. A strong public relations should re-set their focus on how the team's direction is heading towards
 - vi. A commerce store should be added to the website to allow donors to purchase items for Manufacturing Technology
 - vii. Public Relations should utilize media outlets to "showoff" our program
 - viii. Donations will follow with proper public relations
 - ix. Corporate sponsorships should have a synopsis or fundraising packet
 - x. The Public Relations team needs to be refocused

- xi. Donors should be targeted strongly, through the alumni program
- xii. Alumnus should be targeted in the PR or community outreach department
- xiii. Outreach from University students to the high school community
- d. During engineer's week, should there be an event that is held to promote Manufacturing Technology?
 - i. Realistically, the Manufacturing Technology class is not as well known in Los Altos
 - 1. Lack of support for this program is very unfortunate, in terms with other faculty and staff members
 - 2. Many staff and faculty members at Los Altos High School voice opposition to the Manufacturing Technology
 - ii. Engineering week is during February 11th

9. Vote to Continuation of Project

- a. Motion of continuation of the program by Nikki Kodama, second by Stanley Chu,
- b. Vote: **Approved Unanimously**

10. Meeting Adjournment

- a. Meeting Adjourned at 8:43PM