

Challenge X 2008

Marketing Program Final Report

Instructions: Use this template to provide your team's marketing program final report. Final Reports are due on May 7, 2008. Each of these reports must be posted as a PDF or Word document to your team website by the due date as well as sent by email to lpalombo@nrcan.gc.ca.

Team: The University of Texas at Austin

Name of Outreach Coordinator: Jon Bodenhamer

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Dedicated Outreach Coordinator (Y/N): N

Date posted: 7 May 2008

I. Marketing Plan – 5 points

Changes to the Marketing Plan

Since last report, only two significant changes have been made to the marketing plan.

1. We had originally planned to conduct at least two ride and drive events at the local Chevrolet dealer near the campus, but on researching the specifics of the insurance coverage on the vehicle, we decided that ride and drives in this forum were not advisable. We instead have conducted several smaller scale ride and drive events with various individuals from our garage/lab location on a by invitation basis, which meets the rules of our coverage with no questions. We have made provisions to cover the ride and drive events that will happen during the final competition, though.

2. Through a connection made with the public affairs division of the Mechanical Engineering department here when we were having our team photo taken, we have become a fixture on the tour for prospective mechanical engineering undergraduate and graduate students visiting the University. Though this has resulted in at least three to four guided tours of the vehicle and lab each week for the past month and a half, it has increased our visibility through contact with a very large and diverse group of folks from many different backgrounds and even nationalities, who often visit with parents and siblings, thus covering a large age range and demographic. The University of Texas at Austin has an enrollment in excess of 50,000, so the traffic of visitors has been very large, and we believe, a strong positive for our marketing based on the increased web site traffic we have seen since starting these tours.

II. Marketing Activity Detail

A. Media Relations - 5 points

Please list each media hit your team has received since last competition. Please provide copies of any media clips in the Appendix.

Media Type <i>(Television, Radio, Print)</i>	Media Outlet and Reporter's Name	Date	Location	Coverage Origin <i>(List name of News Release or Event)</i>
Web	Carol M Grosvenor, University of Texas Website, Mech Engr. Department	May 2008	Worldwide	Cover story on UT ME website (www.me.utexas.edu)
Web	Becky Rische, Cockrell School of Engineering Website	May 2008	Worldwide	Spotlight story about University of Texas Challenge X team
Print	Robert Patton, editor, Turbodiesel Register Magazine	May/June/July issue 2008	US, Canda, and Europe, where magazine is sold	Article with photos printed on the UT ChallengeX diesel electric hybrid vehicle.

B. Outreach – 5 points

Please use the chart to provide a list of all of your outreach activities since the last competition. Also provide a written description below with additional details for each outreach activity listed. Please number your events below.

Activity	Date	Location	Audience	Participants <i>(Briefly describe which team members participated)</i>
Explore UT	March 3, 2008	Austin, TX	Families (teenagers, children, parents)	Dino Sasaridis, Nicole Munguia, Chris Ohlsen, Keith Kreulskie, Mario Pulido, Jon Bodenhamer
137 th annual Minerals, Metals, and Materials conference	9-12 March 2008	Morial Convention Center, downtown New Orleans, LA	a global sampling of PhDs, engineers, industry experts, vendors, and all visitors to the event as we were showcased in the main entry	Dino Sasaridis, Chris Ohlsen, Nicole Munguia, and Jon Bodenhamer staffed the vehicle static display, answered questions, handed out brochures, and conducted a survey on Hybrids from 8 A.M. to 6 P.M. daily.
Dr. Alan Taub, Executive Director of GM R&D ride and drive	28 March 2008	Austin, TX	Dr. Alan Taub along with professors from Materials Science division of UT Mech Engineering	Conducted a tour and ride and drive event with Dr. Alan Taub and several Materials Science professors who had invited him to visit. He was very impressed with the car, drove it a long distance in town, and then spoke about it repeatedly in his formal presentation later in the day.

Central Texas Diesel Club semi-annual Dyno Day	12 April 2008	American Racing Technology, Buda, TX	Owners of loud, smoky, and powerful diesel trucks	Dino Sasaridis, Nicole Munguia, and Jon Bodenhamer took truck to a local diesel hot rod dyno day to show off a different take on diesel power. Easily the smallest vehicle and smallest engine at the event, but got good reviews nonetheless.
Key visit location for department tour given to prospective undergraduate and graduate students and families	Months of March and April 2008	Austin, TX	Groups of prospective undergraduate and graduate students and their families visiting the university	All team members participated as necessary to ensure someone was always available to display the vehicle and give a presentation on it and the lab area for visiting prospective students and their families during the two months of the semester that the department of Mechanical Engineering conducts these events. At least three times per week, often several times a day.

- Activity name:** 137th Annual TMS Convention **Date/Time:** 9-12 March, 2008
Location: Ernst N. Morial Convention Center, New Orleans, LA
Team participants: Dino Sasaridis, Nicole Munguia, Jon Bodenhamer, Chris Ohlsen
Audience: PhDs, Industry professionals and executives, vendors, educators, professors, and other interested parties from around the world who participated in this event.
Activity description/details: The UT ChallengeX vehicle was displayed in the entrance to the main exhibition hall of the event, the only vehicle at the conference, and was visited by literally thousands of people.
Key Messages Covered: The UT strategy for developing a diesel hybrid vehicle, the future of hybrid vehicles, and the technology behind them.
Any measurable results: Yes, surveys were given to different visitors from around the world that asked questions about their thoughts and opinions of hybrid vehicle technology.
Photos:





2. **Activity name:** Dr. Alan Taub ride and drive **Date/Time:** 28 March, 2008
Location: SAE Garage and Austin, TX
Team participants: Dino Sasaridis, Nicole Munguia, Jon Bodenhamer, Chris Ohlsen

Audience: Dr. Alan Taub, the Executive Director of GM Research and Development, along with several professors from the University who invited him to visit and lecture.

Activity description/details: Shortly before Dr. Taub arrived, we were asked if he could do a ride and drive on our vehicle as he works for GM and was interested in projects going on around the school. We prepared the vehicle and were able to give him and the professors, mostly from the materials science part of the department, a tour of the vehicle and the lab, and then Dr. Taub took the vehicle for a long ride and drive with it in full hybrid mode. He was very impressed with the vehicle and what we had accomplished, and repeatedly praised the vehicle and the team in his lecture that followed the ride and drive, and, we heard later, in his conversations with other faculty for the remainder of his visit.

Key Messages Covered: The UT strategy for developing a diesel hybrid vehicle, our thoughts on hybrids, and answering Dr. Taub's questions on the vehicle and or strategy with it.

Any measurable results: Yes, Dr. Taub appeared to take away a very high opinion of the team and the work we were doing. Good for the continued interest in these projects from GM.

Photos:



3. **Activity name:** CTD Dyno Day **Date/Time:** 12 April, 2008
Location: American Racing Technology, Buda, TX
Team participants: Dino Sasaridis, Nicole Munguia, Jon Bodenhamer
Audience: Local Diesel Power Enthusiasts
Activity description/details: We brought the UT ChallengeX vehicle to a high horsepower diesel dyno day here in central Texas. Easily the smallest vehicle with the smallest engine at the event.
Key Messages Covered: Nothing major. We distributed keychains and pens, and had the car on display.
Any measurable results: Moderate interest in the vehicle. Learned we were not targeting the right crowd at this event. It was fun nonetheless.
Photos: N/A
4. **Activity name:** Prospective Student Visits **Date/Time:** March and April, 2008
Location: SAE Garage and Lab
Team participants: Dino Sasaridis, Nicole Munguia, Chris Ohlsen, Jon Bodenhamer, Mario Pulido, Enrique Villarreal
Audience: Prospective Undergraduate and Graduate students and their families
Activity description/details: Through work Nicole did with the public affairs and recruiting parts of the department, the ChallengeX vehicle became a fixture on the visit schedule for all prospective students this semester. It gave the team the opportunity to discuss the vehicle and the competition with a wide range of people, from young siblings of prospective students to them and their families, who came from across America to visit the university.
Key Messages Covered: The vehicle, the strategy we took in creating it, the vehicle challenge series of competitions in which UT has competed for many years, and answering the many different questions that the folks had over the two months.
Any measurable results: Yes, the students and parents seemed especially interested in the vehicle and also in the potential of participating in the ChallengeY EcoCar project that is soon to begin.
Photos:



C. Education Program – 5 points

Please use the chart to provide a list of all of your education outreach activities since the last competition. This list should include events as well as materials produced to assist in educating. Also provide a written description below with additional details for activity listed. Please number your events below.

Activity	Date	Location	Audience	Participants
Showing of Evolution of The Diesel Poster	February 2008	Austin, TX	Various Visitors (children to adults)	Created by Dino Sasaridis
Visit to local child care facility	17 March 2008	Austin, TX	Pre-schoolers and teachers	Dino Sasaridis, Nicole Munguia, and Chris Ohlsen showed the car, passed out custom designed brochures for youngsters, and distributed team stickers and candy.
Presentation, display, and question/answer session with engineering students from Mexico. Handed out brochures translated into Spanish.	18 April 2008	Austin, TX	Group of engineering students visiting from a university near Monterrey, Mexico	Mario Pulido, Enrique Villarreal, and Nicole Munguia conducted the event entirely in Spanish. It was a very successful event with two different groups of about 25 students who came to see how automotive engineering is taught at U.S. Universities.

- Community event name:** Showing of Evolution of The Diesel Poster
Date/Time: Various, March - May
Location: UT SAE Garage
Team participants: All
Audience: Various, prospective undergraduate and graduate students, visiting scholars, interdepartmental visitors, multiple middle school and elementary school visitors
Activity description/details: Showed poster shown in appendix and after giving a short introduction to Challenge X, took some time to dispel myths and educate the public about diesel technology.
Key Messages Covered: Dispelling diesel myths, highlighting Challenge X
Any measurable results: Feedback was enthusiastic regarding the visitors' new found knowledge of diesel technology. Almost everyone who saw the poster learned something new about diesel and expressed interest in the technology as a part of the solution to a global energy crisis.

Photos:

2. **Community event name:** Local Child Care Visit
Date/Time: 17 March, 2008
Location: Child Development Center (2205 Comal St. Austin, TX 78722)
Team participants: Dino Sasaridis, Nicole Munguia, Chris Ohlsen
Audience: Several classes of Pre-School students and their teachers
Activity description/details: The UT ChallengeX vehicle was displayed for the kids to check out, and a presentation geared toward youngsters was given along with a question and answer session with team stickers and candy as prizes.
Key Messages Covered: Where Bio-Fuels come from, what a hybrid is, and the importance of conservation and efficiency in the future.
Any measurable results: Yes, children were clearly interested in the vehicle and seemed to learn a great deal about it. Planting the seeds early!

Photos:



3. **Activity name:** Mexican Engineering Students **Date/Time:** 18 April, 2008
Location: SAE Garage and Lab, Austin, TX
Team participants: Dino Sasaridis, Nicole Munguia, Chris Ohlsen, Jon Bodenhamer, Mario Pulido, Enrique Villareal
Audience: Engineering students from Monterrey Technical University
Activity description/details: The UT ChallengeX vehicle was displayed for the students to check out first hand. A presentation on the vehicle and the technology and engineering design strategy was delivered by Mario and Enrique entirely in Spanish, with a question and answer session following. Two groups of approximately 25 students visited the vehicle.

Key Messages Covered: The UT ChallengeX hybrid vehicle design plan and execution, along with information about the competition. The question and answer sessions covered a wide range of related topics which interested the students.

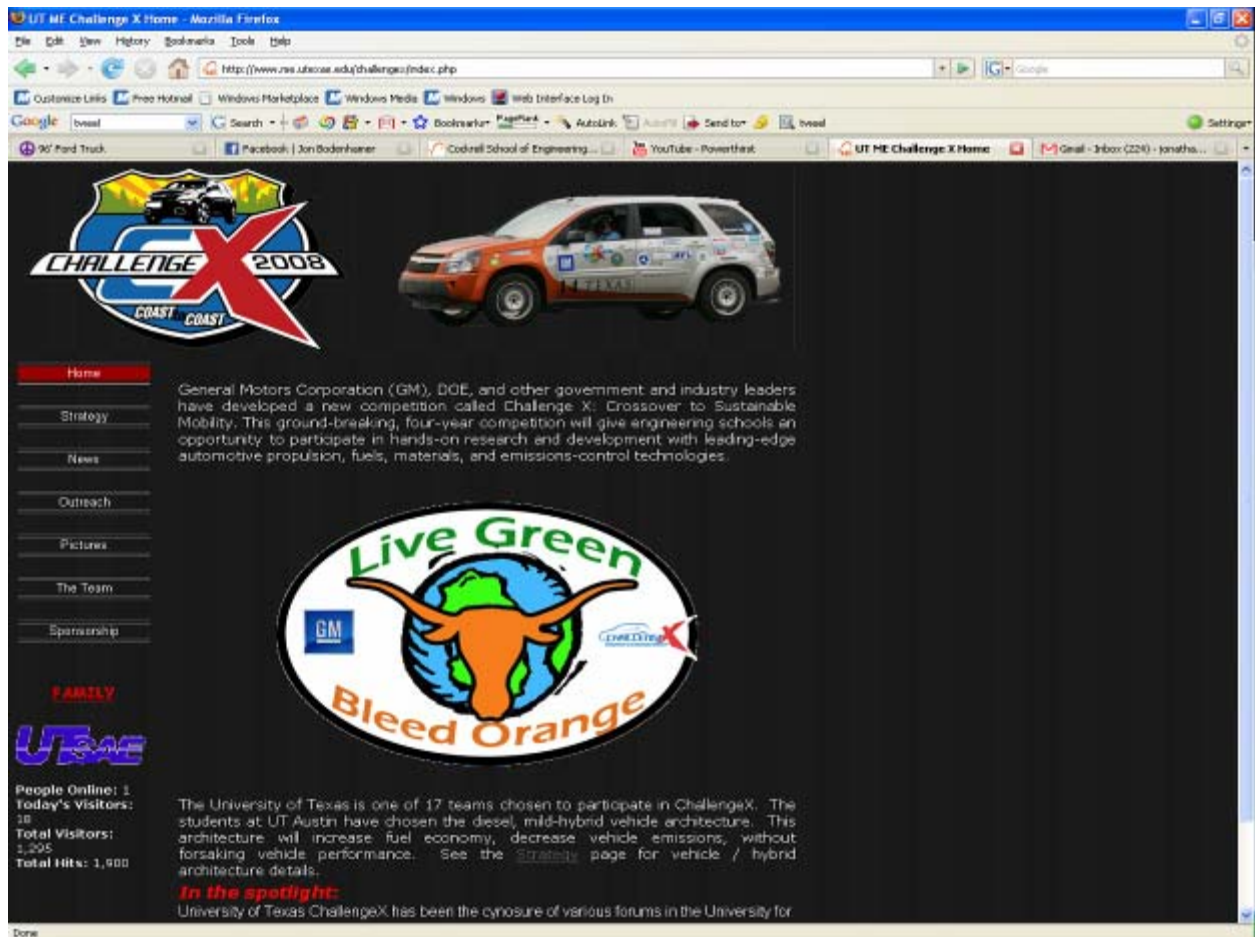
Any measurable results: Yes, the students were clearly interested in the vehicle and the potential for involvement in similar competitions at their university. Also, the fact that the vehicle has an Opel driveline was of interest due to the fact that these cars are sold in Mexico (badged as “Chevy”), so they had an understanding of the basic engine/transmission and were interested in our modifications of it.

Photos:



D. Social Marketing – 5 points

This semester, we have focused heavily on our social marketing through the team website, helped by Jude Osara, who took on the task of webmaster for the team. He has made regular updates to the site as different events happened over the semester and also has been keeping track of the site statistics in terms of site hits and visitors in order to try and gauge the amount of influence our team different hand-outs and other means of publishing are working. For a small web site that is only going to be found by people who get information from us, we have shown real progress in visitors to the page. At present, we have had more than 1200 visitors to the site since we began tracking this in late February, and have also had more than 1900 hits to the site in the same timeframe. The basic design of the site has remained the same, with Jude adding significantly to the pictures part of the site and the outreach part as changes have been made. The most significant change has been the addition at the bottom of the main page, of an "In the Spotlight" link listing the latest publicity we have gotten for the team. For the last month, our team photo and information have been on the home page of the University of Texas Mechanical Engineering homepage, and starting yesterday, 6 May, are also the feature on the Cockrell School of Engineering homepage. We are very proud of being chosen from the large number different projects and teams that are in this large engineering school as their headline display to the many folks who see these two web pages. This will certainly increase the awareness of the team both in and out of the school. The web site is also valuable to us in that it will be a legacy to the competition that should remain in operation for at least a couple of years. Due to the complexity of this project, there are several on-going graduate level research projects connected with it that will continue after the end of the competition, so the UT ChallengeX will be seen driving around the Austin area for some time to come, and the site provides interested parties a means to get information about what the vehicle and the competition are about. Below are screen shots of the web site, our features on the Mechanical Engineering homepage and the Cockrell School of Engineering homepage, as well as one of the recent Google Analytics of the site that Jude keeps track of to monitor our traffic.



Screen shot of our current web page. Note the “In the Spotlight” section visible at the bottom with updates on our media events.



Site Usage



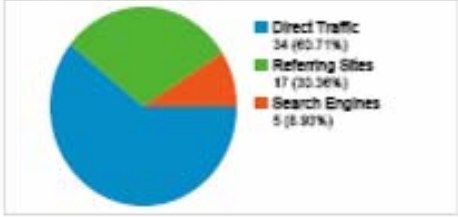
Visitors Overview



Map Overlay world



Traffic Sources Overview



Content Overview

Pages	Pageviews	% Pageviews
/challengex/picture.htm	55	22.18%
/challengex/	51	20.56%
/challengex/team.htm	27	10.89%
/~challengex/outreach.htm	21	8.47%
/challengex/outreach.htm	18	7.26%

Google Analytics for web site for the week of 21 to 27 April showing the traffic statistics for the site. This has been very useful in our monitoring of the effectiveness of our campaign to build awareness of the team and the project.

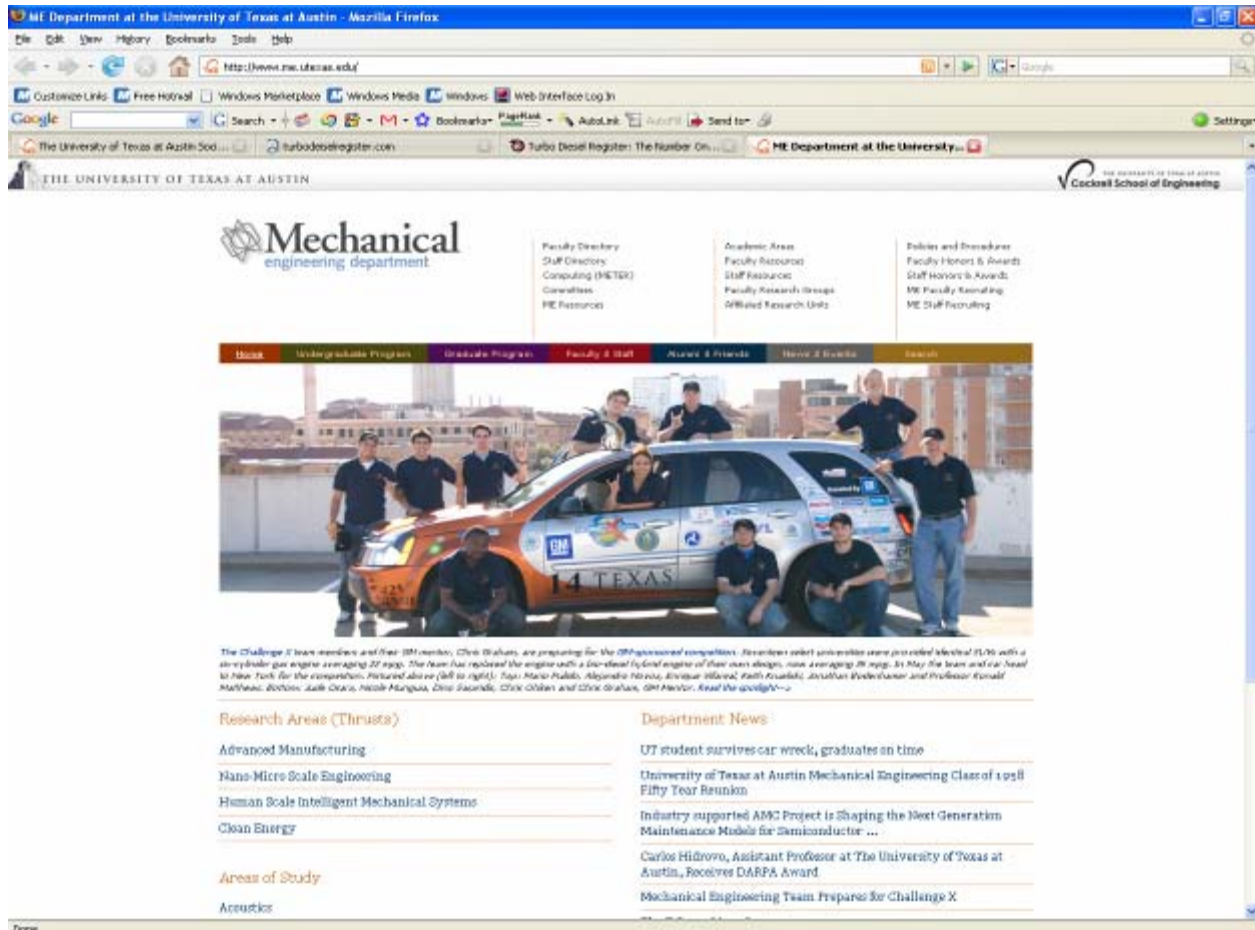
The screenshot shows the homepage of the Cockrell School of Engineering at The University of Texas at Austin. The browser window title is "Cockrell School of Engineering at The University of Texas at Austin - Mozilla Firefox". The address bar shows "http://www.engr.utexas.edu/". The page layout includes a top navigation bar with links for "Prospective Students", "Current Students", "Staff", "Faculty", "Alumni", and "Corporate". Below this is a secondary navigation bar with "About the School", "News", "Research", "Academics", "Computing", and "Support the School". A search bar is located on the right side of the page.

The main content area features a large image of a team of mechanical engineering students standing around a car. The headline reads: "Mechanical engineering students tune up for hybrid, fuel-efficiency competition". Below the image, it states: "A team of mechanical engineering students travel to New York City to compete in Challenge X".

On the right side, there is a "Departments" section with a list of departments and corresponding images: Aerospace Engineering & Engineering Mechanics, Biomedical Engineering, Chemical Engineering, Civil, Architectural & Environmental Engineering, Electrical & Computer Engineering, Mechanical Engineering, and Petroleum & Geosystems Engineering. Below this is the "Continuing Education" section, which mentions the Center for Lifelong Engineering Education (CLEE) and offers results-based learning opportunities. The "Faculty Innovation Center" section states that the center is dedicated to enabling exceptional engineering education. The "Previous Spotlights" section features a small portrait of a person and text about gel-like material for oral insulin pills.

At the bottom left, there is a "News" section with a "Press Coverage" link and a list of news items. The "Events" section lists "Weekend Engineering Master's Degree Programs Information Session" on May 15, 2009, and "Management of Software Project Teams Short Course (Online or onsite)" from May 12 to June 16, 2009. The "Upcoming Deadlines" section lists "Max 5-6-11".

Above is the current Cockrell School of Engineering homepage. <http://www.engr.utexas.edu/>
 We are the headlining item on the page for the next few weeks.



Above is the School of Mechanical Engineering homepage. <http://www.me.utexas.edu/>
 We have been the headlining feature of this site for the last month. It has been great for increasing awareness of the project around the department among both students and faculty.

The team web site has become an integral part of our marketing strategy and we are very pleased with the result of our efforts in this as well as the quantifiable increase in publicity it has given the team.

E. Wrap-up – 3 points

The University of Texas Challenge X team planned an aggressive marketing program for the spring semester in order to accomplish two goals; one, catch the competition who have done more marketing that we have due to the reliability issues we used to face with our vehicle, and two, to try and make an impact on the minds of the local community with respect to “green” vehicles. While we were not able to accomplish all of the goals we established for ourselves in marketing the vehicle, we feel that we have been successful in our efforts, and at the same time, were able to take advantage of some great opportunities, such as being on the new student visitation tour, to show off the car that did not necessarily produce tangible results in the short term, but we think will have a strong positive long term effect on the impression those who saw the car will have on hybrids. Clearly the highlight of the marketing effort was our showcase display at the 137th annual Metals, Materials, and Manufacturing convention in New Orleans. Through the work of Nicole, we were given a display location right in the middle of the

main convention hall entrance, where every visitor to the event was able to see our vehicle and stop to talk if interested. As the only vehicle at this entire event, we got a great deal of attention, and were able to talk with folks from all around the globe. The surveys we passed out to those folks generated some interesting data for us as it gave us a view of consumers from many different markets. The team web site received nearly a thousand hits following this event, which clearly showed that the effort created tangible results for us. Taking part in the visitation program for the department this semester was also a great opportunity for us to interact with a large range of folks, both from the local area and other parts of the state and country, and we really made a positive impression on a large number of soon to be undergraduate and graduate students. It was especially interesting to talk with many of the prospective grad students who are undergrads at some of the other schools in the competition, as they often had opinions of the Challenge X competition from their home universities. Though somewhat limited, the visit to the local school and the trip to the Central Texas Diesel club dyno day gave us some planned exposure in the local community, always generating positive results. Though less quantifiable, we cannot overlook one of the major outreach activities we conducted on a nearly daily basis through the semester, which was just driving the vehicle around Austin, whether for gathering data, a parts run, or just to test the latest software update or sensor addition, we always got interesting looks from folks when the car shut off and then re-started at stop lights, and many folks went out of their way to talk with us whenever we stopped to complete an errand or static test. We were always willing to talk with them about the project and hybrid vehicles in general. Austin is a very environmentally conscious town, and there was no shortage of interest in our vehicle. We clearly made positive impressions on those with whom we interacted on an impromptu basis, and will continue to do this after the competition when the vehicle becomes part of the departmental fleet of research vehicles.

The table below outlines the budget we had for the \$5000 marketing grant. We were able to mostly meet our marketing requirements, though the cost of the visit to the TMS conference was significantly higher than we expected it to be due to higher fuel costs to trailer the vehicle to the event and the cost of lodging in New Orleans. Our advisor felt that attendance at the event was important, and agreed to fund the cost overages, allowing us to complete the event. The local media and outreach events, consisting of the school visits and the visits by prospective students, along with other unplanned events, necessitated that we get some additional team brochures and stickers printed, again exceeding our budget, but this too was funded by the department without complaint, showing the commitment not only the team but also the school has to promoting the success of our team.

Item	Marketing Purpose	Target Audience	Budgeted Cost	Actual Cost
Logo Keychains	Give aways at static displays, ride and drives, and website distribution	18 +	\$550	\$600
Logo Click Pens	Give aways at conferences and static displays	10 +	\$500	\$600
Baseball Caps	Team members and key sponsor displays	25 +	\$400	\$500
Team Polo Shirts	For team members to wear at public relations events		\$400	\$350
Bumper Stickers	Mass distribution of the team website and logo at	5+	\$800	\$600

	public relations events			
Metals Conference	High Profile Public Relations Event	PhDs and industry	\$1500	\$3000
Local Media and outreach events	Get Austin population and schools interested in our vehicle	Local Citizens	\$850	\$1000

It is of interest to note that the marketing of our vehicle to the public has been a challenge but also an interesting learning experience for the team. We were not able to recruit a marketing student to the team, so we were forced to learn about the different things marketing a potential vehicle to the public entails, formulate, and then execute our plan. In doing this, we certainly made some mistakes that a trained marketer would likely have avoided, but at the same time, the process gave all of the team members some great experience in the marketing that most engineers never get, especially while still in the process of completing their education, which will prove valuable to us when we are out in industry in the future.

Reported by: Jon Bodenhamer

Date: 7 May 2008