Final Report

March 28, 2012

Prepared for:
U. S. Department of Energy

Submitted by:
X PRIZE Foundation
Playa Vista, CA

The Progressive Insurance Automotive X PRIZE Education Program

DoE Program: DE-FG26-08NT03077

Program Duration: October 2008 to December 2011

Prepared by:
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1. Executive Summary

The Progressive Insurance Automotive X PRIZE Education Program conducted education and outreach activities and used the competition's technical goals and vehicle demonstrations as a means of attracting students and the public to learn more about advanced vehicle technologies, energy efficiency, climate change, alternative fuels, and the science and math behind efficient vehicle development.

The Progressive Insurance Automotive X PRIZE Education Program comprised three integrated components that were designed to educate the general public and create a multi-tiered initiative to engage students and showcase the 21st century skills students will need to compete in our global economy: teamwork, creativity, strong literacy, math and science skills, and innovative thinking. The elements included an Online Experience, a National Student Contest, and in person education events and activites.

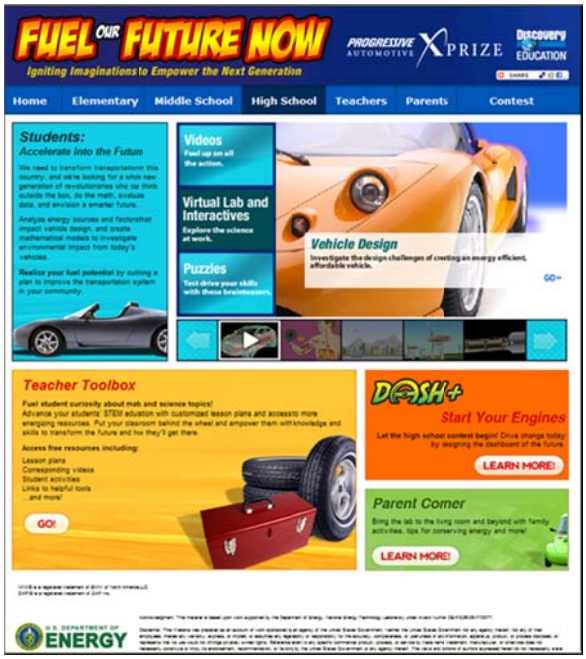
The project leveraged online connections, strategic partnerships, in-classroom, and beyond-the-classroom initiatives, as well as mainstream media. This education program supported by the U.S. Department of Energy (DOE) also funded the specification of vehicle telemetry and the full development and operation of an interactive online experience that allowed internet users to follow the Progressive Insurance Automotive X PRIZE vehicles as they performed in real-time during the Progressive Insurance Automotive X PRIZE competition events.

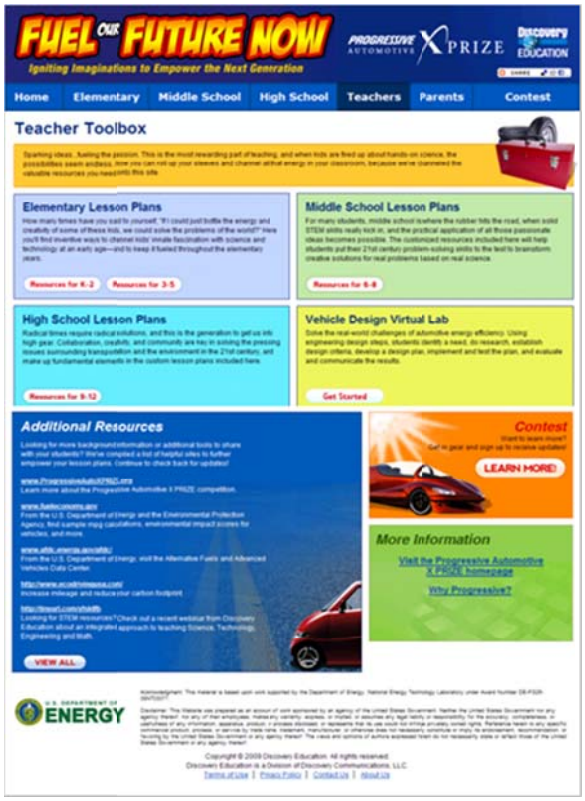
2. Online Experience

The X PRIZE Foundation sought to provide online resources that would be easily accessible to students, parents, teachers, and all individuals who had a curiosity to learn more about the Progressive Insurance Automotive X PRIZE and student engagement. X PRIZE utilized partners to achieve these broad goals which was comprised a website and online telemetry the public could follow during the competition. These partners, Discovery Education, Argonne National Laboratory, Morey Corporation, and ThinkWrap, all worked hand-in-hand with the X PRIZE Foundation to deliver a comprehensive website experience, from resources for parents and K-12 curriculum for teachers, to real-time vehicle telemetry displayed on-screen from the competition cars during the on-track events.

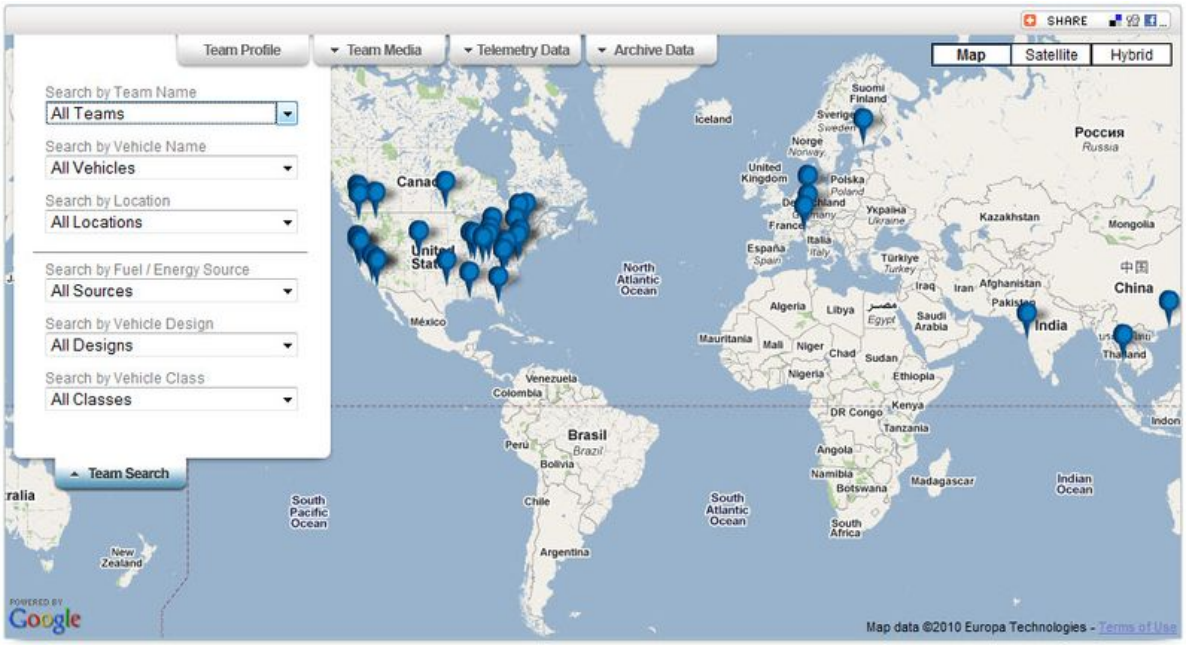
The first iteration of the FuelOurFutureNow.com website was launched on 3 February, 2009. Discovery Education and X PRIZE developed the website, including content and K-12 curriculum. Additionally, partners from various organizations such as the Alliance of Automobile

Manufacturers, Consumers Union/Consumer Reports, the Northeast Sustainable Energy Association, and Scientific American were engaged to provide additional guidance and expertise in the development of this content. Sample screenshots of what was developed are included below:





The second part to the online experience was the creation of the Competition Tracker. Two partners were instrumental in getting this part of the online experience to work. The Morey Corporation (selected by experts at Argonne National Laboratory through a competitive Request for Proposal process) provided Data Acquisition Systems (DAS) to Progressive Insurance Automotive X PRIZE Competition Teams. The Competition Tracker was created by ThinkWrap Solutions, Inc. with the goal to make it easy for the public to see and comprehend what each competitor was achieving during the competition. The DAS systems streamed data from each vehicle to the web. Data was then displayed for each competitor as they were on the track at the Michigan International Speedway. Examples of publicly accessible data displayed were MPGe (miles per gallon equivalent) and carbon footprint. Sample screenshots are provided below:

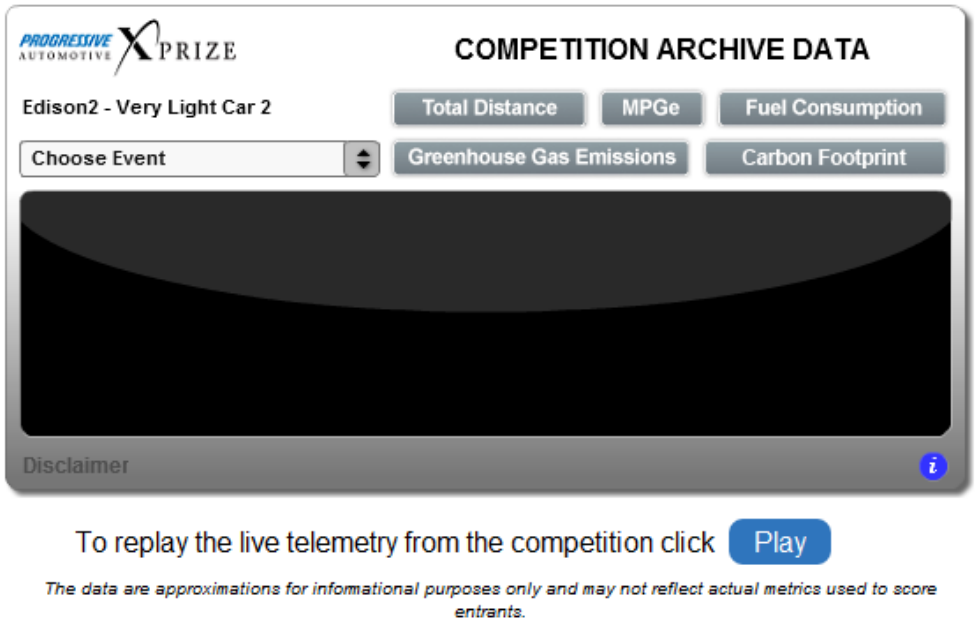


An Interactive World Map

Telemetry Data

The Leader Board

After the competition concluded, ThinkWrap created an archived version of these pages where the public can replay the telemetry output online to see a comprehensive look at each vehicle's performance during the competition. This can still be found online at tracker.progressiveautoxprize.org and http://www.progressiveautoxprize.org/teams.



During the grant, statistics of visits to the website, as well as other metrics, were reported on a quarterly basis. A summary of the statistics of traffic from the launch of the website through the end of the grant on 31 December, 2011, is below:

Website Traffic

- 575k Visits
- 1.67m Pageviews
- 14.5k votes for Fan Favorites

Telemetry Website Traffic

1. 14k Visits
2. 33k Pageviews

Blog Traffic

- 28k Visits
- 48k Pageviews

Other

3. YouTube: 74k Video views
4. Flickr: 58k total photo views

uStream Traffic

5. 152k channel views during broadcast of the live video stream for competition phases at Michigan International Speedway and the awards ceremony at the Historical Society of Washington D.C.
6. 10.7k total viewer hours watched

3. *DASH+* Competition

The High School Student competition began with a design session with representatives from the U.S. Department of Energy along with partners Discovery Education, the Saint Louis Science Center, Widmeyer Communications, and C.Fox Communications. The core concept of the competition chosen by the group: Supporting more efficient driving behavior through feedback. It entailed a challenge that required student teams to create a "*DASH+*" interface which could include visual, auditory, or other sensory cues that assist drivers in maximizing fuel economy. The challenge also allowed for student teams to stretch the boundaries of what is possible and to envision additional experiential elements or tools to make energy efficiency in the automobile more participatory. Please see Appendix 1 for a listing of all the teams that submitted for this competition.

Teams submitted their proposals, including drawings and video content, to an expert judging panel who took all of the data into account as they ranked the teams on Dashboard design, Technical Plan, Pitch Video, and meeting all of the requirements. The scores were then compiled and the teams with the three highest scores, EDV Technologies from Dos Pueblos High School in Goleta, CA, DASH Tech from the Henry Ford Academy in Dearborn, MI, and Harker Innovation from The Harker School in San Jose, CA had their submissions published on FuelOurFutureNow.com for public voting. Please see Appendix 2 for their submitted drawings for this competition. When voting closed, more than 10,000 people, from all 50 states, had cast their vote. EDV Technologies (EDV) was named as the Grand Prize Winner. EDV (El Diseño Verde) team members Jack Moghtader, Nikhil Shinday, and Kelvin Noronha, with mentor Kevin Schantz, created a dashboard concept that continuously calculates maximum fuel economy. The dashboard alerts the driver of environmental impact and awards GreenPoints for eco-friendly driving.

X PRIZE Sponsors Progressive Insurance and Cisco Systems, Inc. were so impressed with all three submissions that they contributed a combined $10,000 that was equally shared by these three teams as recognition of their accomplishments and to further their education goals.

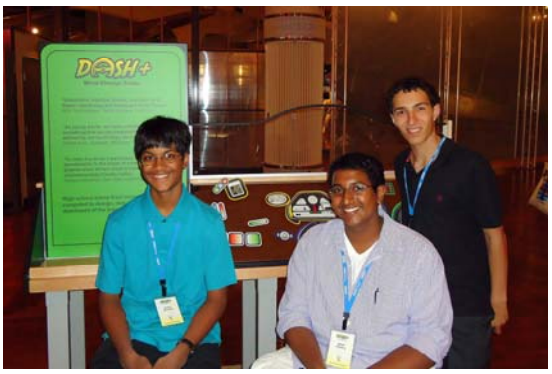
The Grand Prize Winner, EDV, was treated to a VIP experience in Detroit, MI. On the first day, EDV Technologies team members presented their dashboard of the future to automotive industry experts. The panel was particularly impressed by the dashboard's unique feature which awards Green Points for eco-friendly driving. The automotive industry experts recognized the importance of incentivizing more fuel-efficient driving and leveraging shared information through social networks. The panel expressed their admiration of the team's hard work and good thinking.

Following the presentation, the panel engaged in a thoughtful Q&A session with the students. The team was asked about:

Their motivation for developing such a forward-thinking design
The unintended consequences of a system that rewards drivers for particular driving habits
What types of audience research was conducted by the team

After the panel, the team was joined by leading battery expert Ann Marie Sastry of Sakti3 for a private luncheon where the conversation focused on innovation. During the lunch, the team learned about Dr. Sastry's experience in the industry and received valuable feedback and advice.

Later in the afternoon, the team toured The Henry Ford museum with an archivist who walked the team through the history of the automobile. At the conclusion of the tour, he reminded the students that the future of the museum depends on continued innovations from creative young minds like the EDV Technologies team.



Next the team explored the museum's Greenfield Village for a ride on a real Model T Ford, a vintage steam engine, and an exploration of the lives of past inventors, including Thomas Edison and the Wright brothers.

On the second day, EDV continued their VIP tour with more unique opportunities to learn about the automotive and environmental industries from an insider's perspective. The team, along with Connie Bezanson from the U.S. Department of Energy, team mentor Kevin Schantz, and dads Jim Moghtader and Val Noronha, visited the College for Creative Studies where they met with an admissions counselor and had a design session with a CCS professor.

The team then visited the environmentally friendly "green roof" Ford Rouge Factory, where Ford F-150s are assembled.

EDV met with environmental professionals and toured the facilities used to test emissions standards at the U.S. Environmental Protection Agency prior to heading out to the Michigan

International Speedway to witness the final stages of the Progressive Insurance Automotive X PRIZE competition. After meeting with the competing teams and checking out the cars, they toured the MIS grounds and garages, and were guests of honor at the ***DASH+*** awards ceremony.

Their visit was capped off with a spin on the MIS track in the Official Progressive Insurance Automotive X PRIZE Pace Car.

On September 16, 2010, members of the winning team joined the festivities surrounding the awarding of the Progressive Insurance Automotive X PRIZE. While there, they accompanied Finalists and Winning teams to the plaza entrance at the Department of Energy building for discussions with staff, including the United States Secretary of Energy, Dr. Steven Chu.

4. Science Center Events

Originally, there were to be student-centered events in the cities which were the Host Cities of the Progressive Insurance Automotive X PRIZE competition corresponding to when the competition events were taking place. However, the makeup and schedule of the competition changed from a multi-year qualifying round and cross-country race to one that occurred during the summer and was hosted in one location, the Michigan International Speedway. This precipitated a change in how outreach to students in various cities was to take place. Wanting to keep the outreach to a geographically diverse audience, a network of Science Centers was used to promote the education program as it was created in partnership with Saint Louis Science Center.

To account for differing space availability at the various science centers, multiple display setups were created, including both multiple and single station displays. Examples of these can be seen below:

Multiple stations at Henry Ford Museum

One station at Michigan International Speedway

Information was sent out to the science center network offering exhibits and mini-grants. Under the Hood - Drive Change Today program, hands-on science activity carts were displayed at:

- California Science Center in Los Angeles, CA
- Center of Science & Industry in Columbus, OH
- Liberty Science Center in Jersey City, NJ
- Museum of Life & Science in Durham, NC
- Museum of Science & Industry in Chicago, IL
- Museum of Science &Industry in Tampa, FL

One cart was displayed at the Saint Louis Science Center and at the Michigan International Speedway to accompany the Progressive Insurance Automotive X PRIZE open house and public events held on 25, 26 and 27 June, 2010.

Additionally, various programs were developed and held during the summer of 2010:

- California Science Center: Science Live
- Discovery Center Museum, Rockford, IL: Family Fridays

- The Discovery Museums, Acton, MA: Inventors Workshop, Meet the TriHy, and Summer Scientists Camp
- Edgerton Explorit Center, Aurora, NE: Energy of the Future and Summer Science Camp
- Emerald Coast Science Center, Fort Walton Beach, FL: Kids day and Summer Science Camp
- Museum of Life & Science, Durham, NC: Crash Test Dummies
- Museum of Science & Industry, FL: Fuel the Future and Community Science Day
- Oregon Museum of Science & Industry, Portland, OR: Segways & High-Mileage Vehicles
- Museum of Science and Industry, Chicago, IL: Future Car and Community Science Day
- Discovery Center, Springfield, MO: Vehicles of the Future
- Saint Louis Science Center, St. Louis, MO: Camp-In and 2 Community Science Days
- Arizona Science Center, Phoenix, AZ: Summer Science Camp and Weekend Science Activity Days
- Center of Science and Industry, Columbus, OH: Community Science Day
- Detroit Science Center, Detroit, MI: Future Cruisin'
- Henry Ford Museum, Dearborn, MI: Maker Faire and Old Car Show

Furthermore, a 400 square foot exhibit, Under the Hood – Drive Change Today!, was on display from July through September 2010 at the Arizona Science Center in Phoenix, AZ; the Henry Ford Museum in Dearborn, MI, the Oregon Museum of Science & Industry in Portland, OR, and the Saint Louis Science Center in St. Louis, MO.

Attendance for the on the ground experiences exceeded expectations. Original estimates expected a reach of 1,296,400 science center visitors through the carts, exhibits, and programs. Total visitors for 2010 were 5 percent higher with attendance of 1,359,528 visitors.

To accompany these exhibits and allow for further penetration into the science center network, an Educators' Guide to Under the Hood-Drive Change Today! was distributed to 100 science centers nationwide.

A Special Edition of "Science Beyond the Boundaries" summer newsletter publicized hands-on activities, "Fuels and Energy" and "Forces and Motion". Requests for hands-on activities guides and Educator's Guide continued through August, bringing 20 additional science centers into the program's education outreach. Additionally, it featured the results of the *DASH+* contest and a variety of articles related to the national education program.

When the grant was extended through the end of 2011, additional support was provided to the science centers to develop new programs, events, and activities during the summer and fall of 2011. The programs that were developed and held were:

Arizona Science Center offered the Second Annual *Revved UP* science program. Guests were invited to experience demonstrations and participate in activities including the Spud Speedsters Races, to learn more about engineering, technology, and the future of automotive design in preparation for the Phoenix International Auto Show in November 2011.

California Science Center exhibited Under the Hood which complemented their alternative fuels, fuel cell, solar car, gears and wind tunnel exhibits in the Creative World gallery. The exhibit is part of the science center's Science Live! experience which is the primary onsite means of expanding and complementing the scientific principles illustrated in permanent exhibits.

COSI (OH) hosted Under the Hood: Automotive Science Day. Partnering with Honda of America Research and Development, Clean Fuels Ohio, and the Center for Automotive Research (CAR) at The Ohio State University, numerous activities and displays were implemented.

Discovery Center (MO) hosted a three-day "Build a Car" gallery where visitors were challenged to create something new, using existing resources. In addition to the gallery "America Recycles Day" featured "Build a Car" activities.

Discovery Center Museum (IL) conducted activities related to fuel efficiency, the use of biofuels, and combustion reactions as part of several energy-themed programs including "A Little Explosive Fun", a live science demonstration using ethanol.

The Discovery Museums (MA) highlighted the Progressive Insurance Automotive X PRIZE in programs and displays in the fall of 2011. Several programs featured activities challenging visitors to test solar or LEGO cars on tracks, inclines, and tunnels. On Veteran's Day an event featuring engineer Max Hall's licensed electric hybrid vehicle allowed visitors to see and learn firsthand how alternative cars operate.

Discovery Science Center (CA) hosts a major annual community event, "The Science of Gingerbread". The event launched in 2011 with a "Gingerbread Derby" during the Thanksgiving weekend. This activity modeled a traditional boxcar derby with nontraditional materials including cookies and candies of all shapes and sizes.

Emerald Coast Science Center (FL) hosted hands-on activities demonstrating gears and how gear ratios affect the speed that gears turn and the amount of power needed to turn a gear. At Family Science Nights students were provided with two towers with two combinations of gears

attached to an axle, and were asked to compare the speed and power needed to raise the attached blocks.

Museum of Life & Science (NC) had programs which ran through August and September of 2011 and included Engineer's Day, ongoing Energy Efficiency in the Lab sessions, and Crash Test Dummies. Members and visitors took on the role of engineer and investigated the technologies and research behind energy efficient vehicles.

MOSI (FL) had a program, Fuel the Future, which featured the Under the Hood cart and engaged participants of all ages in energy, fuel, and motion studies. The exhibit was utilized in a variety of ways in 2011, including the summer camp program, educator open houses and trainings, student programs, and gallery presentations.

MSI, Chicago (IL) partnered with Progressive Insurance Automotive X PRIZE Finalist Aptera Motors to deliver "Future Car" educational programs involving Chicago area students (STEM Scholars), MSI's teen facilitators, educators, and the general public. The programs included a hands-on workshop, public demonstrations and discussions with Aptera engineers.

OMSI, the Oregon Museum of Science and Industry (OR), developed an educational activity on electric vehicles which highlights the museum's solar electric vehicle charging station and its Sanyo electric-assist bikes. The activity ("Electric Moves!") demonstrated the fundamentals of how electric vehicles work and the technology behind the charging station.

Saint Louis Science Center (MO)

1. Saint Louis Science Center's Under the Hood Day experience included exhibition of electric and biodiesel vehicles and hands-on presentations from local alternative energy companies including Ameren, Microgrid and Synergy.
2. SciFest 2011: Under the Hood was featured in several programs at this annual international science festival. Events included a hands-on activity where visitors built their own "Recycled Racers"; an Electric Truck display accompanied by energy exhibits and distribution of "Fuels & Energy" family guides and X PRIZE coloring sheets; and an Under the Hood presentation at the annual Museum Educators Workshop.
3. Association of Science and Technology Centers Conference: Under the Hood was highlighted in Grandstand Exhibit booth. Staff members from science center partners visited throughout the conference and shared their activities with other museums. Staff distributed "Fuels & Energy" family guides and encouraged visitors to download the Under the Hood guide.

Total attendance for all events in 2011: 112,039

Outside of these organized activities at the science centers, X PRIZE Foundation personnel were busy talking about the education program at the following venues:

2011 North American International Auto Show
The Progressive Insurance Automotive X PRIZE display at the 2011 North American International Auto Show in Detroit featured two museum exhibit pieces from Progressive Insurance Automotive X PRIZE's national education outreach program.

One display included interactive activities demonstrating viscosity of oil, sources for alternative fuels, a demonstration of how tire inflation affects friction and fuel efficiency, and an overview of the fuel sources utilized by X PRIZE competitors.

The accompanying kiosk showcased the X PRIZE finalist teams and video highlights of the ***DASH+*** competition, the winning team trips to Michigan and Washington, DC, a visit by the West Philly X PRIZE team to McKinley Tech High School, their White House meeting with President Obama, and an overview of ***Under the Hood - Drive Change Today*** interactive science center exhibits. The resources of the Fuel Our Future Now site at fuelourfuturenow.com were also promoted to the show's visitors.

Celebrating Science
In early March the National Science Teachers Association National Conference on Science Education was held in San Francisco, CA. This gathering of science teachers from across the nation provided ample opportunities to promote FuelOurFutureNow.com resources in partnership with Discovery Education.

Computer Using Educators
The Computer Using Educators conference in Palm Springs, CA also afforded an opportunity to partner with Discovery Education to promote FuelOurFutureNow.com resources to this annual gathering of tech savvy teachers, including the Discovery Educators Network of teachers who are super-users of Discoverystreaming.

San Diego Science Festival
At the San Diego Science Festival, a model of Edison2's Progressive Insurance Automotive X PRIZE-winning Very Light Car was showcased to fascinated expo visitors. This event, held annually in San Diego's Petco Park, was attended by approximately 20,000 people and provided yet another perfect opportunity to promote the resources available at FuelOurFutureNow.com.

Solar Decathlon and NC Museum of Life and Science

Education Outreach for the Progressive Insurance Automotive X PRIZE continued in September and October, 2011 at the U.S. Department of Energy's Solar Decathlon held in the National Mall's West Potomac Park in Washington, D.C. Nineteen collegiate teams from around the world competed to determine which group had created the most efficient solar powered home. Competition categories included architecture, energy balance, affordability, engineering, and market appeal.

The Under The Hood - Drive Change Today activity cart was very popular with the energy-efficiency-minded Solar Decathlon visitors. The activities in the cart are designed to provide a hands-on introduction to principles of energy use, by-products of energy consumption, and conservation.

North Carolina Museum of Life and Science

At the Museum of Life and Science in Durham, N.C., a week of Progressive Insurance Automotive X PRIZE education events and activities were held in the museum's hands-on investigation lab space.

5. Conclusion

The success in the educational program was due, in part, to three different components being integrated: an online presence which was both a resource for educators, students, and parents and a way for the public to follow the competition without having to be present at the track; a competition targeted to high school aged children; and in-person displays and programs of interest to the whole family. Each targeted a broad audience that had overlapping elements with the audiences of the other components. Educators and parents who were interested in the provided curriculum were able to find out about and encourage students to enter the high school-aged competition. The in-person displays and programs at the network of science centers provided a platform for people to become familiar with the competition and follow online with the competition tracker. This cross-promotion of the various components of the educational program allowed for a greater audience reach.

Another reason for the success of the educational program was due to the use of partners who had experience in and knowledge of the components in which they were involved:

Discovery Education transforms classrooms, empowers teachers and captivates students by leading the way in providing high quality, dynamic, digital content to school districts. 35 million students and 1 million teachers engage with their K-12 content daily.

Saint Louis Science Center founded the Science Beyond the Boundaries Network, a network of science centers and museums that reaches over 25 million visitors annually. The purpose of the network is to share educational materials and exhibits that connect museum visitors with the advancing frontiers of science and facilitate the connection between scientific research and their lives.

Widmeyer Communications is a full-service communications and public affairs firm. The firm has developed strategic communications programs and specializes in public affairs campaigns, including Stop Bullying Now! for the U.S. Department of Health and Human Services

Argonne National Laboratory maintains a broad portfolio in basic science research, energy storage and renewable energy, environmental sustainability, and national security

Morey Corporation, an Electronics Manufacturing Services (EMS) company, has been providing comprehensive design and manufacturing services for over 75 years. It was their strength in telematics hardware design and Data Acquisition Systems (DAS) that led X PRIZE to partner with the Illinois-based firm.

ThinkWrap, Inc. has expertise in the delivery of high performance digital solutions spanning internet mapping, ecommerce, and content management. The firm has implemented projects that range from advanced location based solutions to personalized retail ecommerce sites and real-time integrated SMS solutions.

It was through the use of these partners, and tapping into their areas of expertise, that allowed the reach of each component of the program to be as wide as it was.

6. Acknowledgements

The X PRIZE Foundation gratefully acknowledges the financial and technical support of the U.S. Department of Energy for this education program. The X PRIZE Foundation also gratefully acknowledges the support of individuals and companies that believed in the vision of this program. Progressive Insurance, the title sponsor of the Progressive Insurance Automotive X PRIZE as well as Cisco Systems, Inc., the presenting sponsor of the Energy & Environment Prize Group, were so impressed with the submissions of the semi-finalists in the *DASH+* competition

that they generously contributed a combined $10,000 which was equally shared by the three teams as recognition of their accomplishments and to further their education goals.

Many organizations and people were involved in the VIP experience for the winners of the *DASH+* competition, including the expert panel that started the experience with a discussion with the team members, consisting of:

- **Ford Motor Company**, Sherif Marakby, Director, Electrification Programs and Engineering
- **Ford Research & Advanced**, Jeff Greenberg, Sr. Technical Leader, MVDS
- **General Motors**, Christopher Gamble, Design Manager of Interior Components in North America
- **The Henry Ford**, Bob Casey, Curator of Transportation
- **Sakti3**, Ann Marie Sastry, Ph.D., CEO and co-Founder
- **U.S. Environmental Protection Agency's Office of Transportation and Air Quality**, Arvon L.Mitcham, Program Manager/Engineer

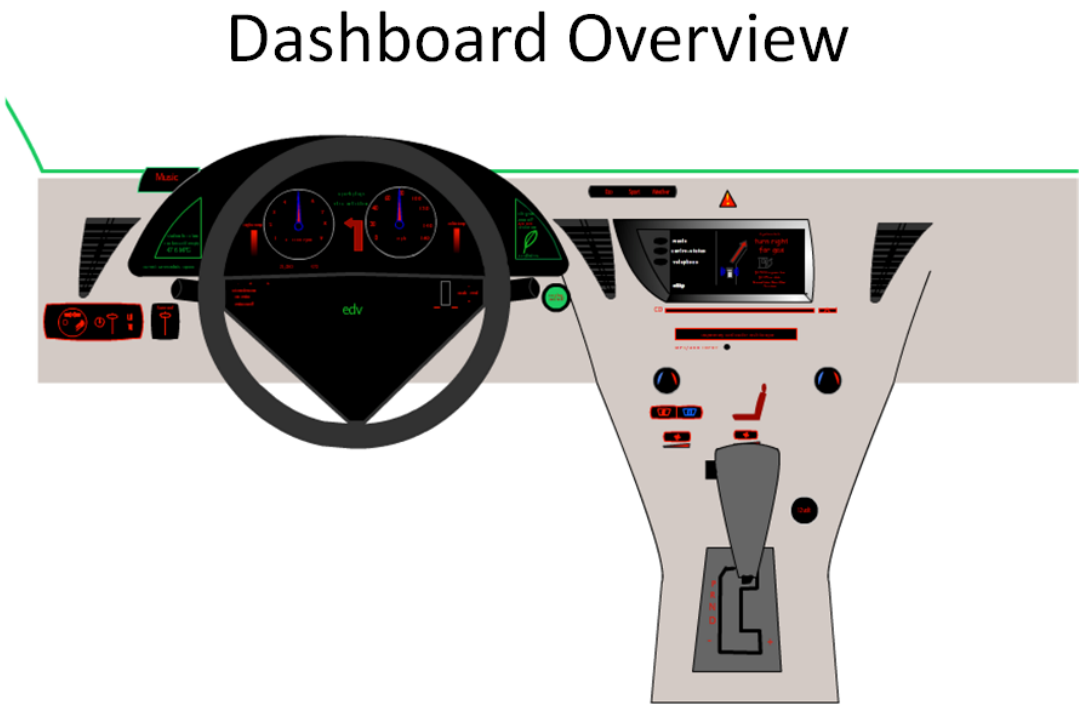
The following organizations also provided tours or held meetings with members of the winning team and made this one-of-a-kind experience highly memorable: The Henry Ford museum, the College for Creative Studies, the Ford Rouge Factory, the U.S. Environmental Protection Agency, Argonne National Laboratory, the competition teams of the Progressive Insurance Automotive X PRIZE, and competition staff.

Appendix 1: Teams that entered the competition

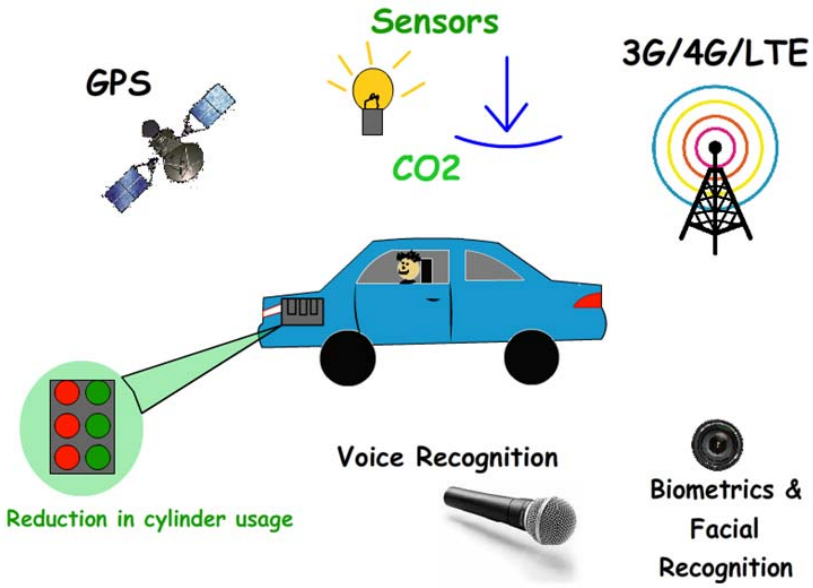
Team Name	City	State
ECO-GEARS	Sierra Vista	AZ
MAST	Los Angeles, CA	CA
Harker Innovation Team	San Jose	CA
EDV Technologies	Santa Barbara	CA
Doherty B Team	Colorado Springs	CO
Doherty High School Team A	Colorado Springs	CO
The Patriot	Tyrone	GA
Cruiz Control	Greenup	KY
GGHS Science Club	New Orleans	LA
DASH Tech, The Henry Ford Academy at the Henry Ford	Dearborn	MI
Blu.mark	Shelby Township	MI
To be Annouced	Shelby Twp	MI
Boss	Shelby Twp,	MI
Blitz	Sterling Heights	MI
DRS.	Sterling Heights	MI
Go Go Gadgets	Sterling Heights	MI
N.A.S.A.	Sterling Heights	MI
Show Mesh	sterling heights	MI
D.A.M.	Sterling Hieghts	MI
<Insert Team Name Here>	Utica	MI
JAE Squear	Utica	MI
Team Shelby	Utica	MI
State Champions of the world	Bay St. Louis	MS
Moultonborough Academy Mach 32	Moultonborough	NH
Emerald Knights	New Milford	NJ
Indian Warpath	Toms River	NJ
Tiger Speed	West New York	NJ
Archbishop Wals	Olean	NY
BT Productions	Olean	NY
economic eclipse	Olean	NY
nitro-gin!	Olean	NY
Soaring Eagles	Olean	NY
Walshies	Olean	NY
XJ	Olean	NY
COSI NSBE Jr. Chapter	Columbus	OH
WALKER VALLEY ENGINEERING ACADEMY	CLEVELAND	TN
Futuresque	Auburn	WA
Raging Monkeys	Federal Way	WA
Victorious Secret	Federal Way	WA

Appendix 2: Finalist Teams' Submissions

EDV Technologies



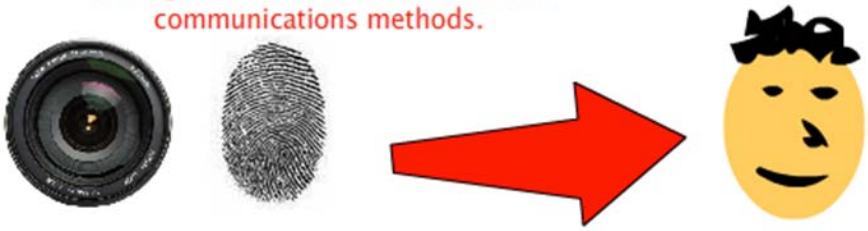
Major Interaction Technology



Ridesharing/Center Waterfall Console

Advantages of Biometrics and Facial Recognition

Camera recognizes drivers and transfers their settings from car to car via different communications methods.



Detailed View – Instrument Cluster

GreenPoint Program

EDV GreenPoints Rewards

Can be used at participating merchants

Auto Mechanics - oil changes, tune-ups, repairs
Grocery Stores - discount for environment friendly products
Amusement Parks - discounts for family vacations
Boutiques - discounts on selected, environment-friendly items
Restaurants - Some free or low-price menu pieces

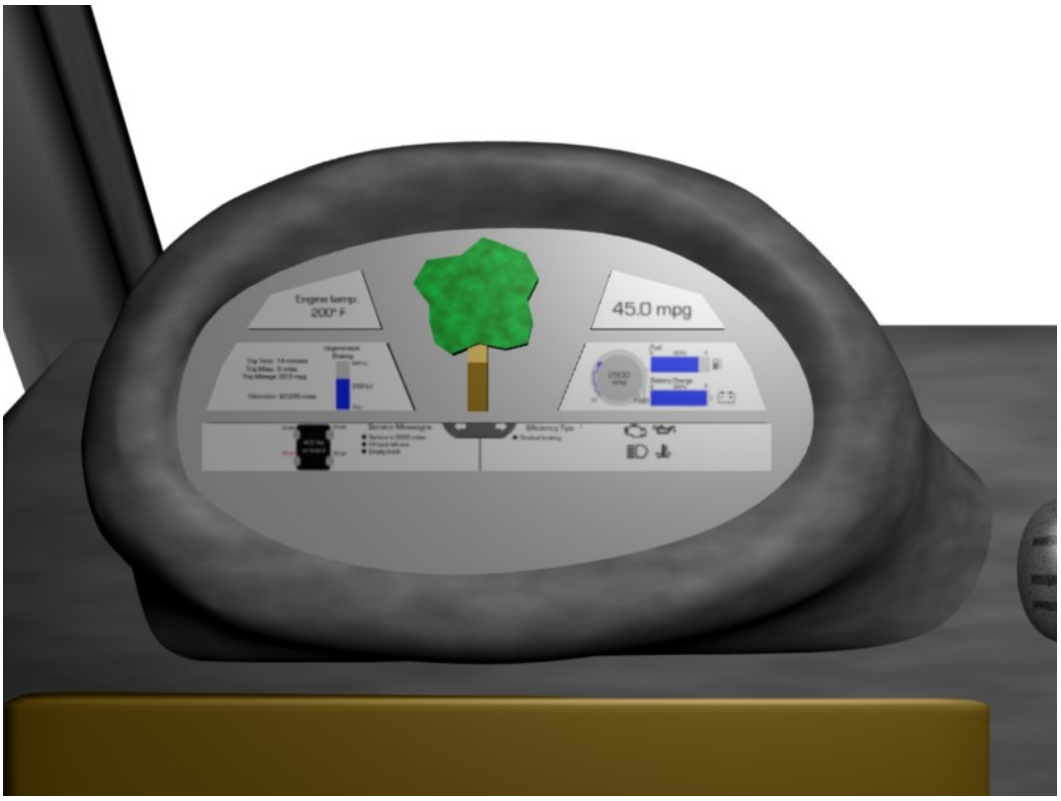
Fuel/Energy Notifications and Directions

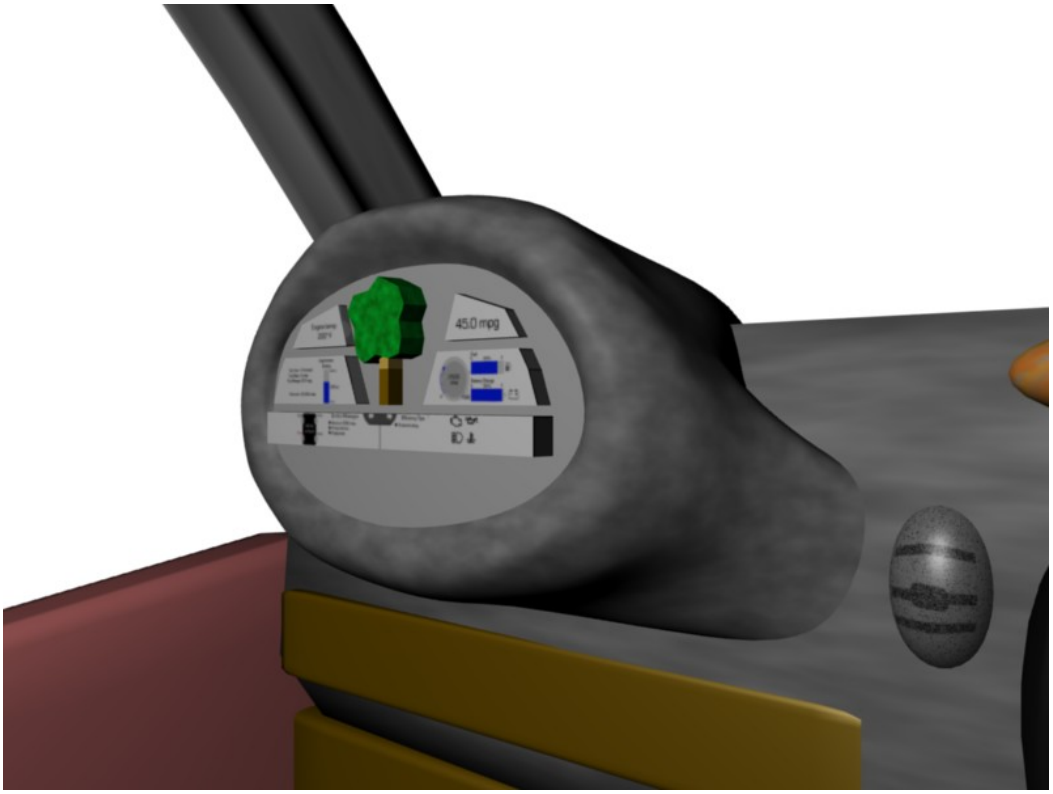
DASH Tech, The Henry Ford Academy at the Henry Ford

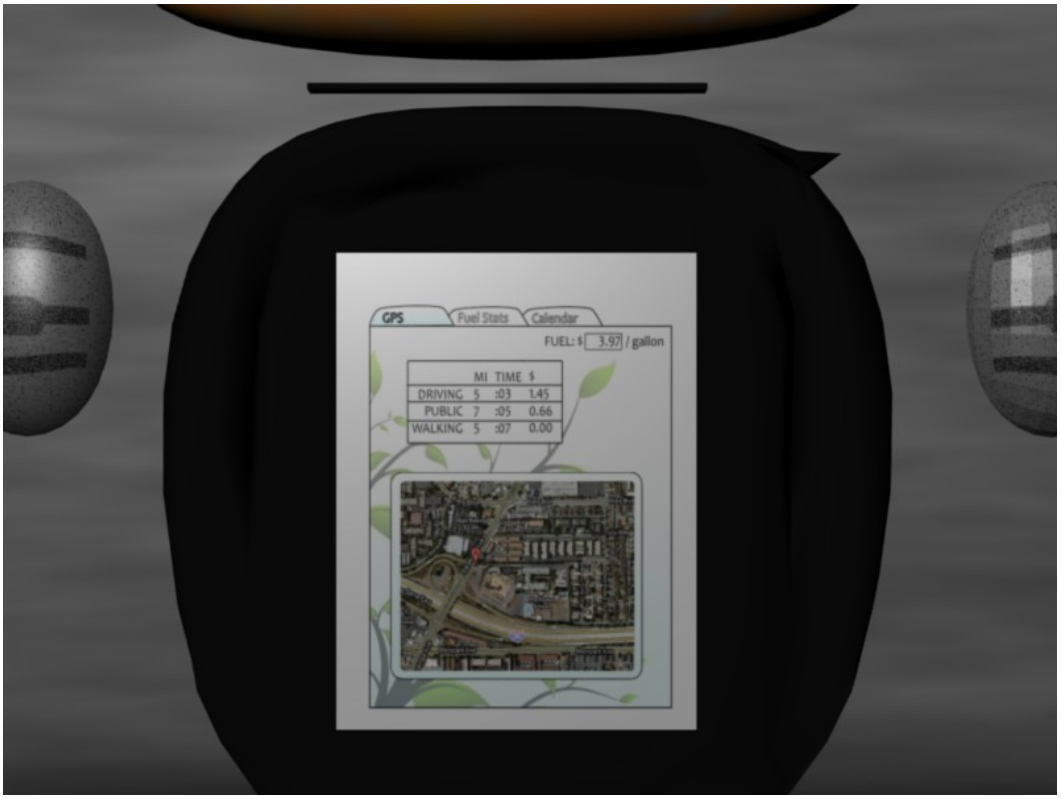

Henry Ford Academy
DASH TECH DESIGNS
ECO-FEATURES
avatar
life indicator
eco-points
optional voice activated indicator
wireless charging dock
personalized avatar/efficiency indicator
6


Henry Ford Academy
DASH TECH DESIGNS
USER ORIENTED IP
Holo-iTouch screen enables reduction of tooling for instrument cluster components
interactive app. positioning
passenger synched applications
digital customization
low-energy consumption & lightweight screen
7

Harker Innovation Team




45.0 mpg


GPS
Fuel Stats
Calendar
FUEL: $ 3.97 / gallon
MI TIME $
DRIVING 5 :03 1.45
PUBLIC 7 :05 0.66
WALKING 5 :07 0.00