In less than two months, Team PrISUm will be racing in the American Solar Challenge! This seven day race will take us 1,100 miles across the Midwest from Tulsa, Oklahoma to Chicago, Illinois. As usual the race will be preceded by the qualifying event, the Formula Sun Grand Prix track race, at Motorsport Ranch in Cresson, Texas. To learn more about the race, visit the ASC website. [http://americansolarchallenge.org/](http://americansolarchallenge.org/).

Our tenth car (code name P10) is quickly approaching completion. Despite all the challenges this team has faced over the past two years working on this project, it looks like it will be a great success. Many improvements have made their way into the final design including our first three wheeled stance in over 10 years! The aerodynamics have been drastically improved, the weight reduced, and the electrical systems have been revised. All these advances will lead to a faster car that will better compete against the other teams this summer.

Even though we are only two months away from the beginning of the race, we still don’t have a completed car. On the bright side we have the design of all systems finalized and have most of the completed components in our garage. Team members will work long hours in the time remaining before the race to make sure the car functions perfectly before it departs for Texas on June 11th.

Because this will be the last Sundial before the race, we would like to share with you some pictures of the events we have participated in, and the work we have done over the last two years. Every member of PrISUm has gained valuable experience throughout this project that will make them better prepared to enter the work place when they graduate from ISU. For this, we thank all of our sponsors, large and small, who have contributed time, money, and expertise to our project. We couldn’t do it without you!

It’s that time of year again; we need your help to name our tenth solar car! Submit name ideas to [solarcar@prisum.org](mailto:solarcar@prisum.org) with “Solar Car Name” in the subject line. If your name is chosen for the car, you will receive a free Team PrISUm polo. Keep checking our website for the latest team updates and the results of our car naming contest.
Outreach Events

Public outreach is a principal goal of PrISUm. Each semester we share the experiences and knowledge we have gained designing and fabricating a solar powered car. We would like to share with you pictures from some of the events we have attended throughout this project.

- Chris Lopez - PrISUm Outreach Director

Team members Wade Johanns and Evan Atkins get their picture taken with Henry Winkler (AKA The Fonz) at the World of Wheels Car show.

Upcoming Events:

- Jax Film Festival
- Engineering Day at Council Bluffs
- Crawfordsville and Wayland School Presentation
- Iowa 4H Conference Tour
- Illinois Renewable Energy Fair

If you would like PrISUm to attend your event, visit your local school, or are interested in a garage tour check out the outreach page on our website!

http://solarcar.stuorg.iastate.edu
Team members have been working extra hours this semester to get PrISUm’s tenth car completed. The hands on experience these ISU students gain from this process will better prepare them for employment when they graduate. I would like to share with you some pictures to help you better understand how we are constructing our car.

- Nate Kaiser - Mechanical Team Director
“Twenty years ago a small group of Tau Beta Pi engineering students were chosen to represent Iowa State University at the GM Sunrayce USA.”

Twenty years ago a small group of Tau Beta Pi engineering students were chosen to represent Iowa State University at the GM Sunrayce USA. The 1987 World Solar Challenge in Australia had been dominated by GM’s Sunraycer and GM decided to bring solar car “raycing” to North America with an 1800 mile sprint from Orlando, Florida to Washington D.C. Although being chosen to compete along with thirty-one other teams out of the 100 total entries was a victory in itself, our team strove to create a highly competitive vehicle, named PrISUm. We finished 17th in the race and have since competed in all nine North American solar rayces over the past twenty years.

The second rayce in 1993 actually traveled through Iowa on highways 69 and 65, an event that many long time team supporters will remember. This was marked by PrISUm II proudly leading the field into Des Moines after installing new batteries, which unfortunately would later result in a penalty. Despite this risky strategy, PrISUm II would go on to finish an impressive 10th place. The next two rayces were marred by accidents resulting in the destruction of CYnergy just miles before the finish line in 1995 and the damage and reconstruction of ExCYtor in 1997. Neither car managed to finish well. Due to safe design and teamwork, no one sustained major injuries as a result of the crashes. Team PrISUm rebounded with its highest overall finish of 5th in 1999 by Phoenix, our fifth vehicle. The following two cars, Odyssey and Spectrum, carried high hopes as they traveled the Southwest in 2001 and 2003, respectively, but were troubled with malfunctions that resulted in disappointing finishes. In 2005, Fusion, the team’s eighth project, produced our best finish of 3rd in class followed by Sol Invictus’ 8th place finish in 2008 on the two longest solar car rayces in world history.

The next rayce will provide PrISUm with a chance to continue as the only American team to qualify for every North American solar car rayce with a brand new car. Hopefully in the years to come team members will reflect back on our proud heritage to find PrISUm’s tenth vehicle in a prominent place.

-Wade Johanns, Assistant Project Director
As an adherent of solar energy, Team PrISUm views public outreach and education as a vital task. On average, the team organizes about one outreach event per week aside from the regular garage tours that we give to any group or individual who asks for one. From displaying our solar car at a car show in Ames to having an online Skype session with a 5th grade class about solar energy, Team PrISUm is always eager to teach people about our project and promote the future of renewable energy.

In October we took Sol Invictus to a Boy Scout event in Ames called “A Walk in Nature”, displayed the solar car at the Ames Power Plant open house, and tailgated with Iowa State alumni during Iowa State Alumni Day. In November we teamed up with the College of Engineering and the Athletics Department during the “wind energy game”, which was sponsored by Mid-American Energy, the Iowa Department for Economic Development, and ITC Midwest to discuss wind energy.

In early January, Team PrISUm will be headed to Rock Island, Illinois for Bald Eagle Day, a convention that is aimed at educating and entertaining people of all ages. During this event we are going to present our solar car and answer questions about solar energy. Later in January, Team PrISUm will be attending the First Lego League (FLL) competition in Ames.

We would like to thank all host schools, companies, and communities for their hospitality, support, and interest in our project! Be sure to check our website for a complete schedule of upcoming events. If you would like us to bring our solar car to an event, don’t hesitate to contact us.

-Chris Lopez, Outreach Director

Team PrISUm has been focusing a lot of effort this semester on multimedia as a way to share our experiences with people from around the world and to further promote our many wonderful sponsors. Even though we plan many community outreach events throughout the year, we recognize that we can’t possibly reach everyone who is interested in our solar car project. As a result, we are constantly striving to improve our online presence so that anyone can learn about our team and keep up to date with our latest progress and activities.

Team PrISUm’s website has undergone major revisions in recent months, adding new content, improving organization, and optimizing for better cross platform compatibility. We’ve been regularly posting news updates to keep the public informed about the status of our project. If you haven’t visited the website recently, it’s a great way to learn about our team. You can view our outreach calendar, see photos and videos of past cars, and find out how to get involved with the project. We welcome your input and suggestions as we continue making improvements to the website.

Team PrISUm has been actively recruiting new members this semester to ensure that we have enough people to help build the car and attend the American Solar Challenge in June. At the same time, we have been expanding our presence on the Iowa State campus by displaying the car at events, putting up posters, and simply taking the car out to central campus in the middle of the day to talk to students and faculty about the project as they walk by. These measures have proved beneficial for the team because we currently have about 30 members working on the project.

Keep checking the team website for the latest news, photos, and videos as we work to complete our tenth solar car and represent Iowa State University in the 2010 American Solar Challenge.

-Evan Stumpges, Media Director
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- Keck Energy

We would like to offer a special thanks to all of our sponsors. Your support is not only benefiting students at Iowa State University but also contributing to an innovative project that is pushing the limits of solar technology and teaching the public about the importance of renewable energy. We truly appreciate your commitment and hope you will consider continuing to support our team in the future. We couldn’t do it without you!
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