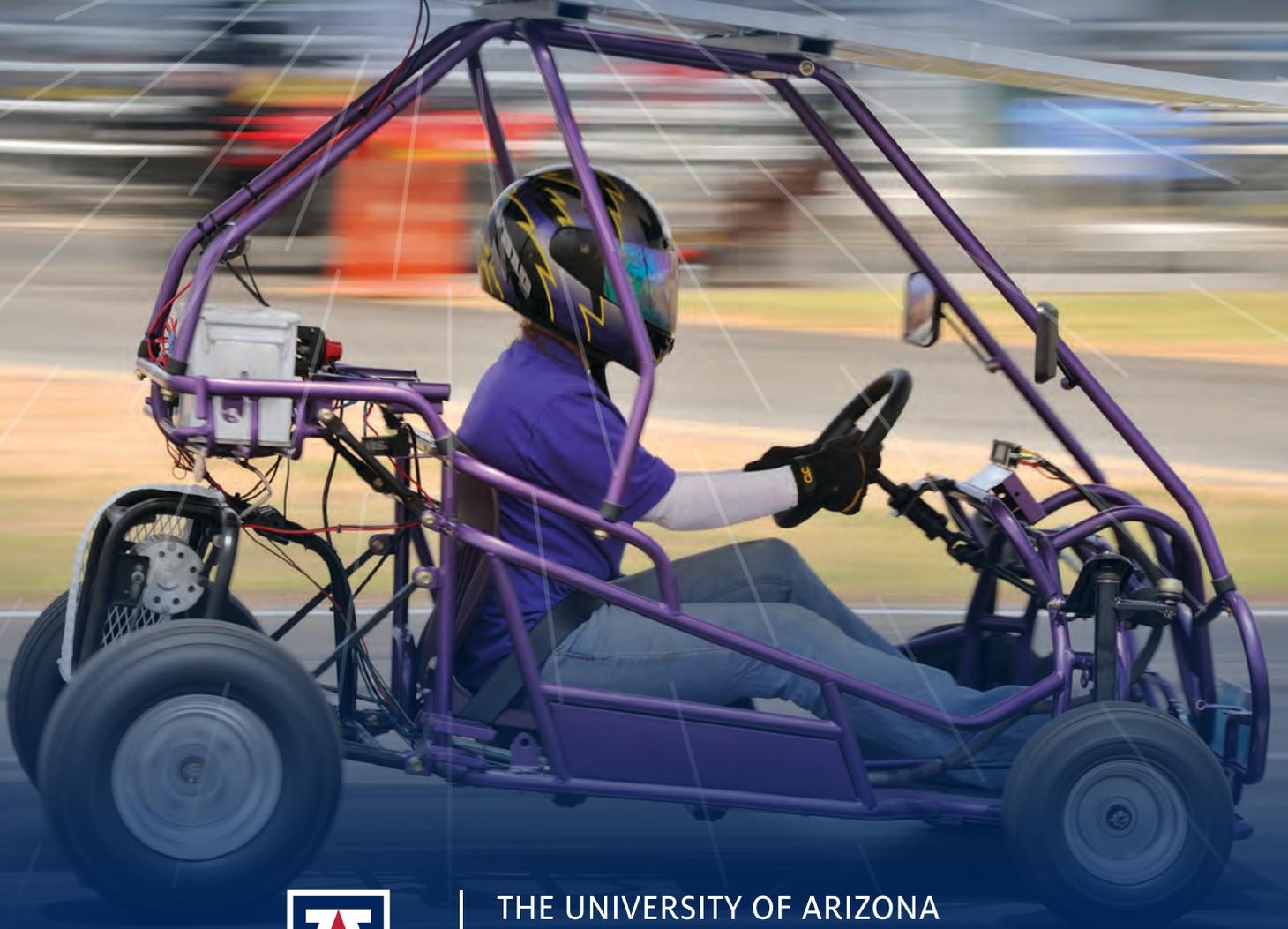


# Racing the Sun



THE UNIVERSITY OF ARIZONA

**TECH PARKS  
ARIZONA**

[techparks.arizona.edu](http://techparks.arizona.edu)

*Engaging High School Students in Real-World STEM*



# Successful Impact

Racing the Sun is a science, technology, engineering, and mathematics (STEM) program using solar energy as the foundation for students to apply skills they have learned in a real-world experience. The idea developed from the desire to combine educational outreach with workforce development. Tech Parks Arizona is encouraging students to pursue technical careers using a hands on experience to engage them to the University of Arizona's technology focus areas. Pairing industry experts in STEM fields and the educational community, the high school solar go-kart competition, is proving STEM is fun!

Racing the Sun broke dawn, with three go-karts and a total of thirty kids competing that first year. Since its inception, Racing the Sun has impacted the lives of nearly 300 students and teachers. There are nearly one hundred students with their teachers and a dozen industry and University of Arizona mentors involved in the program.



The students are engaged throughout the year by meeting a series of milestones. The program partners students with industry professionals and university students who act as mentors throughout the process. The students partake in workshops, create technical drawings, attend Career Day field trips, conduct presentations, and then build and race their solar go-karts.

*“The enthusiasm and sense of achievement these students feel is the ultimate payoff.”*

- Brenda Hough, Tech Parks Arizona, Community Relations Coordinator

*“There is no competition like this in our region. Racing the Sun teaches students in such a fun and applicable way.”*

- Kelly Simmons-Potter, University of Arizona Professor of Electrical and Computer Engineering, Optical Sciences, and Materials Sciences and Engineering

Racing the Sun builds local talent by teaching students technical skills they can apply. They learn from each other as well as their mentors. The program aligns well with Arizona state standards in engineering and math, making it easy for teachers to bring it into the classroom. The application of the skills is the most valuable tool we can provide to students in the classroom. The possibilities to expand the program are endless.

*“Racing the Sun is a great program with a big impact. It has the potential to become even more impactful as well as a signature event for the state of Arizona. We want students coming from every southwestern state to get involved and to learn about solar energy.”*

- Bruce Wright, Associate Vice President, Tech Parks Arizona

*“I came into this project knowing nothing about the electrical wiring system and now I know every detail about it. It made me feel very accomplished to understand how it all works. Math and science are a big piece of this project”*

- Student, Dysart High School

*“My students overcame every obstacle the project threw at them...and there was a lot of problem solving. Nothing was easy. The kids worked as a team to overcome challenges and personality issues for the betterment of the whole group. Some students had never done anything mechanical, so **they’ve enjoyed working with their hands as well as the concept of solar energy.** The whole school is proud of them.”*

- Jeff Ofstedahl, Center for Academic Success (CAS)

## **Get Involved**

Racing the Sun is seeking sponsorships to expand the program and provide the ability for all schools across Arizona to participate. Some schools have wanted to participate in the past but lack the necessary funds to do so. More resources will allow additional opportunities for students in STEM education and workforce development. Please support Racing the Sun and the students that are blazing a trail to their career.





# Racing the Sun

## As a sponsor you support . . .

**The Students** who really want to learn. Students see building a solar go-kart as one of the most fun experiences they have had in high school. Most of the students work on their go-karts around the clock - evenings, weekends and after school - to build the best kart they can with their team.

*"It was more than just a hands-on science experience, this gave me a future career idea. I realized there is so much that I can do."*  
– Student, Dysart High School

**The Teachers** that participate in the competition go the extra mile to make this happen for the students. They work tirelessly with their students and take full advantage of this opportunity.

*"Several students specifically joined my class this year because they wanted to work on the solar kart. They enjoyed working on a mechanical system and applying various academic concepts and getting the chance to see how it all worked together. The competitive component of the race helped to drive the students even more than I could."* – Dan Zavaleta, Desert Vista High School

**The Mentors** that volunteer and generously give of their time to benefit the future innovators of the world. The industry and University mentors are shaping our community for the better by donating their time to impart their knowledge to the students. Many of them do this while working full-time jobs and getting degrees.

*"My main goal is to teach these young adults of the future, the benefits, and the practicality of using solar energy for applications such as moving a vehicle, providing power in remote locations, or whatever the power need may be."* – Wally Stoss, P3Solar



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To learn more visit  
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▶ To sponsor Racing the Sun,  
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(520) 382-2486

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