Innovators Educational Foundation (IEF), a 501c3 nonprofit, organizes the US collegiate solar car events. IEF is made up of a core group of dedicated volunteers, mostly former competitors, that know first-hand the value of a hands-on, multidisciplinary, innovative project to the educational experience. In addition to experiential learning, these solar car events promote energy efficiency and raise public awareness of the capabilities of solar power.

Innovators Educational Foundation
1028 S Bishop Ave #314
Rolla, MO 65401
ief@americansolarchallenge.org

Note: The Formula Sun Grand Prix is not in any way associated or affiliated with the Formula 1 companies, FORMULA 1 racing, or the FIA Formula One World Championship.

Get involved
• Form a solar car team to compete
• Sponsor, donate, or volunteer

Teams
#5 University of Florida
#6 University of California Berkeley
#7 Dalhousie University
#11 Northwestern University
#17 Illinois State University
#21 Kennesaw State University
#32 Principia College
#55 Polytechnique Montréal
#87 University of Virginia
#540 Virginia Tech
#608 University of Wisconsin Madison
#614 Ohio State University
#786 Western Michigan University
#828 Appalachian State University

Coming in 2024
• Form a solar car team to compete
• Sponsor, donate, or volunteer

American Solar Challenge
US COLLEGIATE SOLAR CAR RACING
american solarchallenge.org
JUNE 27-JULY 2, 2023

FORMULA SUN GRAND PRIX
Topeka, KS. 2023
Teams aim to complete as many laps on the 2.5 road course track as possible in the allotted 24 hours of driving time during this 3-day, road-course track event. Teams strategize their pit stops for driver and tire changes, all while carefully monitoring the weather and managing the car’s energy from the sun. While the fastest lap will be recognized, FSGP is focused on strategic energy management and maximizing efficiency to complete the most laps over the 3 days.

New this year, Heartland Motorsports Park will be giving teams that have passed scrutineering the opportunity to run on their infamous ¼ mile drag strip in a friendly, bragging rights competition.

The solar cars undergo a series of inspections covering all aspects of the car, including electrical systems, mechanical systems, body and sizing, dynamic testing, and more. Inspectors check that all the solar cars are built in alignment with the regulations and have all required safety features. Passing scrutineering is a big accomplishment for the teams and a requirement to participate in the event.

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ELECTREK FORUMULA SUN GRAND PRIX JUNE 30 - JULY 2

Promoting educational excellence and engineering creativity, the Electrek Formula Sun Grand Prix (FSGP) is a collegiate student design competition. University teams design and build solar-powered vehicles within a set of regulations. More than just another engineering competition, solar car teams effectively act as a small business, handling their own fundraising, public relations, and logistics as well as putting their unique solar car designs to the test in competition. The Electrek FSGP provides an opportunity to combine STEM, experiential learning, innovative design, and alternative energy, helping prepare today’s students to be tomorrow’s leaders.
How do solar cars work? Solar cars use photovoltaic cells to convert sunlight into energy. This energy powers an electric motor to make the car go or can be used to charge batteries to store energy for those not-so-sunny days.

Why do solar cars look so different? Conventional passenger cars typically minimize the energy lost due to drag, resulting in unique shapes and lightweight designs. Many solar cars include fairings around the wheels to further improve aerodynamics.

How fast do they go? Event regulations limit the cars to 65 mph. Success in the event is more about energy efficiency than top speed.

What about cloudy days? Solar cars carry batteries that can be charged using the solar cells on the car. When driving under cloudy skies or needing extra power, the car uses this stored energy. Hence, the solar cars can continue to drive in the clouds and rain, although likely at a slower speed to preserve energy.
MathWorks is a proud supporter of student competitions that inspire learning and advance education in engineering, science, and math.

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