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EcoCAR 3 North America's Premier Collegiate Automotive Competition

SPONSORSHIP OPPORTUNITIES

EcoCAR 3 is the latest U.S. Department of Energy (DOE) Advanced Vehicle Technology Competition (AVTC) series. As North America's premier collegiate automotive engineering competition, EcoCAR 3 is challenging 16 North American university teams to redesign a Chevrolet Camaro to further reduce its environmental impact, while maintaining the muscle and performance expected from this iconic American car.

Sponsored by DOE and General Motors, and managed by Argonne National Laboratory, EcoCAR 3 seeks to develop the next generation of automotive engineers, project managers, and communicators by providing them with unparalleled experience in designing, building, and promoting advanced vehicle technologies. The competition is the heart of American automotive ingenuity and innovation, and is the ultimate training ground for minting future automotive leaders.

THE CHALLENGE

The newest Camaro is the most technologically advanced in the vehicle's history, and EcoCAR 3 teams will be tasked to enhance the vehicle even further by applying the latest cutting-edge technologies and incorporating new innovative ideas. Teams have four years (2014-2018) to harness those ideas into the ultimate energy-efficient, high performance vehicle.

The Camaro will keep its iconic body design, while student teams develop and integrate energy efficient powertrains that maximize performance, while retaining the safety and high consumer standards of the Camaro. Teams also will incorporate alternative fuels and advanced vehicle technologies that will lower greenhouse gas and tailpipe emissions.



“Over 40 percent of the students we’ve recruited from AVTC programs have created patents within the first three years of employment for our company. This is well ahead of the average for non-AVTC hires.”
– John Haraf, Director of Hybrid Vehicle Integration and Controls, **General Motors**



GOALS - OBJECTIVES

EcoCAR 3 teams will follow a real-world vehicle development process and establish a plan for research and development, analysis, and validation of the vehicle design. EcoCAR 3 teams will have the opportunity to get hands on experience working in many vehicle technology areas, such as:

- ▶ *Energy Storage System design and integration*
- ▶ *Hardware and Software-in-the-Loop simulation and testing*
- ▶ *Human-Machine Interfacing for infotainment & displays*
- ▶ *Vehicle connectivity and embedded control systems*
- ▶ *Powertrain component bench testing*
- ▶ *Use of vehicle modeling and simulation tools*
- ▶ *Improving aerodynamics*

The Camaro is a thrill behind the wheel, and now the EcoCAR students are in the driver's seat. They have four years to design and integrate vehicle powertrains and alternative fuels, that when compared to the production Camaro, will further:

- ▶ *Reduce energy consumption*
- ▶ *Reduce well-to-wheel GHG emissions*
- ▶ *Reduce criteria tailpipe emissions*
- ▶ *Maintain consumer acceptability in the areas of performance, utility, and safety*
- ▶ *Meet energy and environmental goals, while considering cost and innovation*



EcoCAR 3 TEAMS

- Arizona State University
- California State University – Los Angeles
- Colorado State University
- Embry-Riddle Aeronautical University
- Georgia Institute of Technology
- McMaster University
- Mississippi State University
- The Ohio State University
- Pennsylvania State University
- University of Alabama
- University of Tennessee, Knoxville
- University of Washington
- University of Waterloo
- Virginia Tech
- Wayne State University
- West Virginia University

SPONSORSHIP BENEFITS

Becoming an EcoCAR 3 sponsor provides an entire array of opportunities. Here are just a few;

RECRUIT from North America’s top graduates in engineering, project management, and communications. These students are passionate about advanced vehicle technologies, and have hands-on experience with the latest industry practices and tools.

- ▶ Post job announcements directly to students
- ▶ Receive resume CDs each semester
- ▶ Attend and exhibit at up to three recruiting events annually

SHOWCASE hardware, software, or components that teams can use to integrate into their competition vehicles.

- ▶ Teams will test and experiment how products perform during rigorous and innovative applications
- ▶ Provides students access to components and systems that might otherwise be unavailable or too expensive for them to use

EDUCATE by donating products, provide training, and help foster a cooperative mentoring environment for EcoCAR students.

- ▶ Opportunity to meet, work with and recruit the nation’s most motivated and talented engineering students.

PARTNER with government, industry, and academia.

- ▶ Work along with two dozen other high-profile industry sponsors
- ▶ Accelerate engineering education into the future by joining forces with the U.S. Department of Energy to explore sustainable vehicle solutions

PROMOTE your company and gain visibility within the automotive and government community, and with the media.

- ▶ Title sponsor your own award showcasing your company’s products
- ▶ Securing presence on the EcoCAR 3 website, print materials and competition programs, company’s logo on the team vehicle, and table top exhibits at networking events
- ▶ Additional PR and media coverage opportunities

*Activities are dependent on sponsorship level

SPONSORSHIP CATEGORIES

Four Year Competition-Level Sponsorship Options

CASH REQUIREMENTS

Visionary Partner	\$300K
Leadership Partner.....	\$100K
Sustaining Partner	\$50K
Supporter.....	\$35K
Contributor	\$15K

Above cash contributions may be donated in payments over four years. In-kind weighted separately.

*Team Sponsors – sponsors may provide support directly to EcoCAR teams in both cash or in-kind support.

ABOUT AVTC HISTORY

Since 1988, the U.S. Department of Energy has sponsored Advanced Vehicle Technology Competitions through Argonne National Laboratory. These competitions represent a unique coalition of government, industry and academic partners who join forces to explore sustainable vehicle solutions. Argonne manages these competitions to educate the next generation of automotive engineers and accelerate the development and demonstration of technologies of interest to the DOE and the automotive industry.

Over 16,500 students from more than 93 educational institutions in North America have participated, gaining real-world, hands-on experience tackling the challenges associated with building more fuel-efficient vehicles.

“Over the years AVL has realized many benefits as a sponsor of EcoCAR. We come together with other industry leaders and have the unique opportunity to build relationships with the students. This has resulted in AVL hiring many graduates of the program.”

*— Jacqui M. Kern, Senior Recruiter,
AVL Powertrain Engineering*

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“We believe that preparing and supporting the next generation of scientists and engineers by providing software, training and mentoring is a core part of our company’s mission. Project-based learning shifts the student experience from academic theory to hands-on skills. For students, it’s learning by doing. For MathWorks it’s accelerating the pace of discovery in engineering and science – and that’s what motivates us every day.”

*— Paul Smith, Director – Consulting Services,
MathWorks*



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“AVTCs allow students to take the engineering fundamentals learned over years of study and apply them, in concert with other disciplines, on a complex real world deliverable. It forces students to attempt to deliver their best work product.”

*– Mitchel Routh, Controls Design Engineer,
General Motors, University of Tennessee-
Knoxville AVTC Alumnus*

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ENERGY



SPONSORS

Join these government and industry partners in sponsoring EcoCAR 3 and contribute to the education and support of the next generation of automotive engineers.

VISIONARY



California Environmental Protection Agency
Air Resources Board



LEADERSHIP



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