



## Advanced Vehicle Technology Competitions™

### About Advanced Vehicle Technology Competitions (AVTCs):

Established in 1988 by the U.S. Department of Energy and Argonne National Laboratory in partnership with North America's automotive industry, Advanced Vehicle Technology Competitions (AVTCs) are North America's premier collegiate automotive engineering competitions and DOE's flagship workforce development program for future automotive engineers.

AVTCs engage students from middle school through higher education, creating a pipeline that both encourages students to pursue careers in science, technology, engineering, and math (STEM) and has seeded more than 30,000 graduates into industry, helping to build the diverse workforce needed for the U.S. to be competitive in the global marketplace.

### Mission:

Harness the knowledge and resources of government and industry with the brightest minds in academia to empower the next generation of engineers and business leaders to develop solutions to our nation's toughest transportation challenges, while providing students with an unparalleled and immersive educational experience and real-world training ground that transforms the traditional classroom into a hub of automotive innovation, and seeding the industry with a highly skilled and knowledgeable workforce that will shape future energy-efficient automotive products and achieve our vision for net zero emissions by 2050.

### Vision:

Transform STEM education and training to accelerate and deploy a skilled and diverse workforce better prepared to advance our nation toward electrification, decarbonization and other climate change actions, enabling the U.S. to achieve net zero emissions by 2050.

### Goals:

1. Create an immersive and un-paralleled educational experience for students centered around experiential learning that transforms the traditional classroom into an automotive hub of innovation
2. Establish a multidisciplinary team environment that mimics an automotive start up and draws upon disciplines beyond engineering
3. Provide a real-world training ground for future engineering leaders, exposing them to industry tools, components, processes, best practice and standards and challenges them to solve complex challenges and achieve industry-standard milestones and vehicle specifications
4. Implement a national STEM and community outreach program to attract youth into STEM careers, build awareness within underserved communities and broaden opportunities for underrepresented minorities to participate in AVTCs and future mobility careers
5. Design and implement purpose-built education, training and experiential learning that better prepares students for future careers in mobility
6. Build a skilled workforce that reflects the diversity of North America that is better prepared to advance our nation toward electrification, decarbonization and other climate change actions, enabling the U.S. to achieve net zero emissions by 2050



**Current and previous AVTC series include:**

13. EcoCAR EV Challenge (2022-2026)
12. EcoCAR Mobility Challenge (2018-2022)
11. EcoCAR 3: An Advanced Vehicle Technology Competition (2014–2018)
10. EcoCAR 2: Plugging In to the Future (2011–2014)
9. EcoCAR: The NeXt Challenge (2008–2011)
8. Challenge X: Cross to Sustainable Mobility (2004–2008)
7. FutureTruck (1999–2004)
6. Ethanol Vehicle Challenge (1997–2000)
5. FutureCar Challenge (1995–1999)
4. Propane Vehicle Challenge (1995 1997)
3. HEV Challenge (1992–1995)
2. Natural Gas Vehicle Challenge (1990–1993)
1. Methanol Marathon (1988–1990)

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