Riding on Sunshine

Discover how an unusual car race in Australia is reimagining the way people drive.

By Inez Prieto

The Aurum, shown here, uses the sun's energy as fuel and can travel at highway speeds.

Every two years, race-car drivers and their teams gather in Darwin, Australia, to take part in an epic 1,800-mile race. However, the distance isn't the most unusual thing about this competition. The cars are futuristic-looking machines that use the sun's energy as fuel!

Looking to take a top spot in this year's World Solar Challenge is a team of students from the University of Michigan. Their car, called "Aurum," has won many races in the US and is ranked highly around the world.

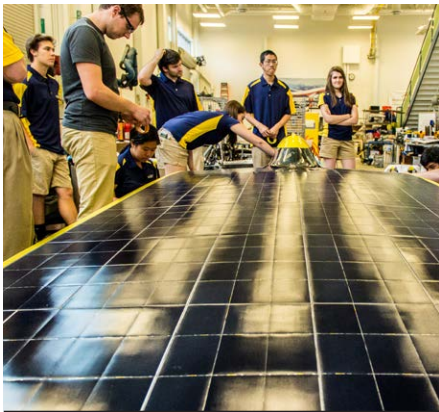
Aurum doesn't look anything like a traditional car. Instead it resembles a type of boat called a catamaran. It has smooth "hulls" that cover its wheels. These hulls help make the car aerodynamic. In other words, the hulls allow the car to cut through wind resistance that might otherwise slow the vehicle down. In addition, the car has a "deck" made of solar panels. These panels take in solar energy, or light from the sun, and turn it into electricity. This electricity is used to power the car.

"The car is amazing," says team leader Pavan Naik. "It goes highway speeds on just sunlight."

The Dirt on Driving

Unlike Aurum, most cars have engines that work by burning a gasoline mixture. Such engines are cheap and easy to fix. However, they are extremely bad for the environment.

Fuel-burning engines produce air pollution, which can cause lung cancer, asthma, and other health problems. This pollution can also eat away at protective gases in Earth's atmosphere. The Environmental Protection Agency says 50–90 percent of air pollution in American cities comes from cars.



The car's deck is made of solar panels.

Getting rid of such engines would do a lot to help the environment. That's why solar car races were started—to get people thinking about new ways to power cars.

A Brighter Future

So, can you expect to see these cars on the road anytime soon? According to Naik, probably not because they just aren't practical. Since the cars have an aerodynamic design, drivers are unable to sit in the vehicle. Instead, they must lie down and keep their heads raised while driving.

However, race officials emphasize that the cars in the event are not a prototype for cars that could be mass-produced in the future. The goal is to see how far such cars can travel.

As these experimental cars head into the race, the future for solar-powered vehicles seems bright.

p. 1: Ujjwal Chande/Epik Studios; p. 3tr: Darren Cheng/The University of Michigan Solar Car Team