

## 'Supermileage' team aims for 2,000 mpg

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The Penn State Behrend Supermileage car weighs 98 pounds and could, in the proper conditions, get more than 2,000 miles to the gallon.

(Phys.org) -- John Pearson's Oldsmobile gets maybe 21 miles to the gallon. His school car – a custom-built, carbon-fiber test vehicle – is a bit more efficient: It could, in the right conditions, exceed 2,000 mpg.

A team of 15 students, including Pearson, of McKean, Pa., will travel from Penn State Erie, The Behrend College, to the Eaton Corporation's Marshall Proving Grounds in Michigan on Wednesday, June 6. They will race 31 other university teams, trying to squeeze the most mileage out of a single tank of high-octane gasoline.

The Society of Automotive Engineers sponsors the annual competition, which is called the International Supermileage Challenge. The goal is to raise public awareness of fuel economy.

The competition started 30 years ago, when gas cost \$1.30 a gallon.

Pearson, a mechanical engineering student, brings another interest to the competition. “I like building stuff, doing stuff with my hands,” he said. His brother, Taylor Pearson, also is involved.

Others on the team see job potential in the car project. “When you go into a job interview and they ask you how you might solve a problem, you can point to this and talk about what you did,” said Tina Raeke, of Millcreek Township, Pa., who graduated this spring with a mechanical engineering degree.

Thirty Penn State Behrend students have worked on the car since December. They started with a Briggs & Stratton lawn mower engine.

The finished car weighs 98 pounds and it sits just an inch off the ground. Inside, there is room in it for just one person -- Pearson has to cross his legs to get the hatch closed.

“It’s like an Easy-Bake Oven,” he said. “It’s really, really hot in there.”

Team members painted the [car](#) white, with blue racing stripes. In its original black color, the carbon-fiber composite might have softened and weakened on the track.

The drivers will use a push-button ignition to start the engine. Just as quickly, they’ll stop it: The target speed, Taylor Pearson said, is between 15 and 15.1 mph. Every 10th of a mile faster than that will cut between 30 and 50 [mpg](#) from the car's efficiency.

The slow speed changes the tone of the race.

“This is a lot of fun,” John Pearson said. “But it is an odd race to watch.

Everybody's out there going 15 mph.”

Provided by Pennsylvania State University

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