

# Purdue students build street-legal 2, 200 mpg solar powered car

April 25 2011, by Jim Schenke

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Ted Pesyna, at left, president of Purdue Solar Racing, and Brian Kelley, a junior in computer engineering and member of the solar-car team, show their new vehicle, Celeritas. The car achieved the equivalent of nearly 2,200 mpg while winning the urban division of the Shell Eco-marathon Americas, an international contest for college and high school students to design and build the most fuel-efficient vehicles. (Purdue University photo/Andrew Hancock)

(PhysOrg.com) -- The Purdue Solar Racing team's solar-powered urban commuter car achieved the equivalent of almost 2,200 miles per gallon in the 2011 Shell EcoMarathon international competition this week in Houston.

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**2,564 miles per gallon achieved at Shell Eco-marathon:**

[www.physorg.com/news/2011-04-m...ll-eco-marathon.html](http://www.physorg.com/news/2011-04-m...ll-eco-marathon.html)

The Celeritas prototype can handle a full-sized driver seated upright in a car equipped with headlights, taillights, a trunk, energy regenerative braking, pothole-handling suspension and rearview backup cameras. The car, equipped with five onboard computer systems, generated so much electricity it was in jeopardy of overloading its onboard batteries.

Subsequent versions of the car may include an air-conditioning unit to make it even more comfortable and to consume excess electricity. The team is applying for a VIN number and license plate to make it a street-legal experimental vehicle.

Team president Ted Pesyna, a senior from Indianapolis, said the students couldn't be more pleased with their results in what was their first year competing in the urban division.

"We have clearly demonstrated the feasibility of an electric [car](#) that requires no burning of fossil fuels," Pesyna said. "Thousands of hours went into creating this machine but it is so worthwhile when the results show that we will eventually be able to move beyond oil for our transportation needs."

The team is drawn from an array of undergraduate programs including mechanical, electrical and computer engineering and aviation technology. It spent one year designing the \$90,000 prototype and one year building it. The effort is funded largely through contributions from corporations and several Purdue schools and colleges.

**More information:** [www.shell.com/ecomarathon](http://www.shell.com/ecomarathon)

Provided by Purdue University

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