

PRESS RELEASE

UMD team to compete in Solar Decathlon and donate home to Habitat for Humanity

A student team from the University of Massachusetts Dartmouth will be among the 19 competitors from around the world participating in the 2005 Solar Decathlon sponsored by the United States Department of Energy.

The university will represent the state and vie with groups from Canada, Puerto Rico, Spain and across America next September in the prestigious contest held on the National Mall in Washington D.C.

According to Professor Gerald Lemay of UMass Dartmouth's electrical and computer engineering department, the purpose of the competition is to explore the feasibility of a sustainable home with emphasis on solar power. Toward that end, teams conduct research, tests and experiments before arriving at a design from which they will construct a solar home.



UMass Dartmouth Solar Decathletes shown installing structural insulated panels include David Guerriero (Civil Engineering), John Dunn (Electrical Engineering), Tom Celona (Mechanical Engineering), Michael Guilmette (Electrical Engineering) and Daniel Forbes (Computer Engineering).

"Everyone involved has already won because we got invited to participate," Lemay said. "It will be a fabulous experience for all of the students as they meet others, learn about solar design and architecture and how to interact with professionals and the public."

During the contest, the UMD 800 square foot project home will be constructed in the parking lot of a Washington D.C.-area Home Depot and transported to the competition site on a trailer. Judges award points in categories such as architecture, project development, lighting, appliances, curb appeal, communications and more. About 100,000 visitors are expected to witness the three-week event.

Building the house in the nation's Capitol will save \$45,000 in transportation costs.

Since the project kickoff last September, the approximately dozen members of the student team have been far from idle. In addition to taking classes and practicing their skills on a test-site on campus, members this past spring traveled to Lenoir City, Tennessee. There, they worked with the Loudon County Habitat for Humanity on the construction of a “structurally insulated paneled home,” Lemay explained. That experience convinced them to donate their finished product to the D.C. Habitat for Humanity at the competition’s conclusion.

“Not only will we be saving money, we’ll also be providing an energy efficient home for a needy family and we are the only competing team to do so,” Lemay said.

And that’s not all. Plans are in the works to build a solar home next year in conjunction with Habitat for Humanity of Greater Plymouth.

“I’ve had loads of positive experiences so far,” said Tom Celona, a sophomore who is the student development project leader. Although still in an early phase of the two-year process leading up to the contest, he added, “Students get a chance to work with all the technology and with each other...” At weekly meetings, it is Celona’s job to present updates and other relevant information to participants, thereby enhancing his communication and leadership skills.

Other students are also getting into the act. Mechanical engineering majors Erick Dreyer, David Rastelli, and Bryon Stevens hope to make their senior design project applicable to the solar home. The seniors want to power an affordable portable cooler perhaps for medical or recreational uses. Lemay explained that the solar home would need a cooling system to refrigerate food so a dovetailing of the efforts is a possibility.

“One of the unique applications of solar energy is to cool things,” Lemay said. “There are a number of educational and rewarding experiences that could come out of this (partnership).”

To date, the financial and emotional support has been uplifting. The \$250,000 project is funded in part by grants from the U.S. Department of Energy, The Massachusetts Renewable Energy Trust, the UMass Dartmouth Chancellor’s and Provost’s Offices, the Henry H. Crapo Charitable Foundation and dozens of in-kind donations and other charitable contributions.

The fundraising and grant writing teams will continue to work over the next year seeking additional monies to realize the balance needed for the project. Additional student and community involvement is also requested. For more information, contact Gerald Lemay at 508-999-8535 or glemay@umassd.edu or visit www.umassd.edu/solar and www.solardecathlon.org.