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**For Immediate Release**

## **TWEAK takes off: Class builds an electric vehicle**

Community Education students at UNM-Los Alamos built an electronic vehicle in just one month this summer. Instructor Michael Ham and his classes produced a working prototype of TWEAK (Three-wheeled Electric Alternative by KinAesthetic Wind).

“The idea was to build a small commuter vehicle that would be inexpensive—similar to a motorcycle but safer,” Ham said.

Ham, a physicist at Los Alamos National Laboratory, and his brother Kenny, a mechanical engineering student, are the president and vice-president of KinAesthetic Wind Inc., a non-profit designed to help increase the amount of renewable energy generated in the United States. The brothers had been talking about building an electric vehicle for awhile, and by offering the class, they had a deadline. The non-profit raised around \$1,000 for to produce the TWEAK prototype.

Ham calls the vehicle “version zero” of what he hopes will be an ongoing project to produce a viable alternative mode of transportation for commuters that would cost between three and five thousand dollars.

“We think a lot of people would go for a cheaply priced vehicle. The goal is to produce something that will last forever with upgrades and pay for itself with gasoline costs,” Ham said. We’re hoping to turn this into a viable vehicle that could be manufactured here in New Mexico.”

The class was quite an adventure for the students.

“We showed up with all these parts and said, ‘we’re going to build a car,’ ” Ham remembered.

And they did. In four class meetings, three extra sessions and some work on the side by Ham and Kenny, the vehicle was ready for a test drive around the UNM-LA parking lot within a month.

“Everyone learned a lot and has a brand new skill set, including machining and welding,” Ham said. “Everyone got in there and worked.”

The TWEAK prototype is powered by two electric drills. A solar array allows the car to recharge while sitting in the sun. It can travel 10-12 miles per hour.

Plans for the next version of TWEAK are currently underway and Ham hopes to offer another class at UNM-LA next summer. The next version will have a sturdier frame and be lighter weight. Ham hopes to incorporate a racing seat to make the vehicle safer. It will also be faster—at least 35 miles per hour, Ham said.

Students don't need to wait until summer to learn more about electric vehicles. UNM-LA Community education is offering Electric Vehicles Hybrid and Conversion: “Their Time has Come” from Oct. 29 to Nov. 19. The class will explore what is currently available for purchase and the basics of how to convert a gasoline or fueled car. The class will meet Thursdays from 6-8 p.m. Call 662-0336 or visit the Community Education page at [www.la.unm.edu](http://www.la.unm.edu) for registration information.

To learn more about TWEAK, the class that built the prototype, and KinAestheticWind, visit [www.KinAestheticWind.com](http://www.KinAestheticWind.com).