

HUMBOLDT

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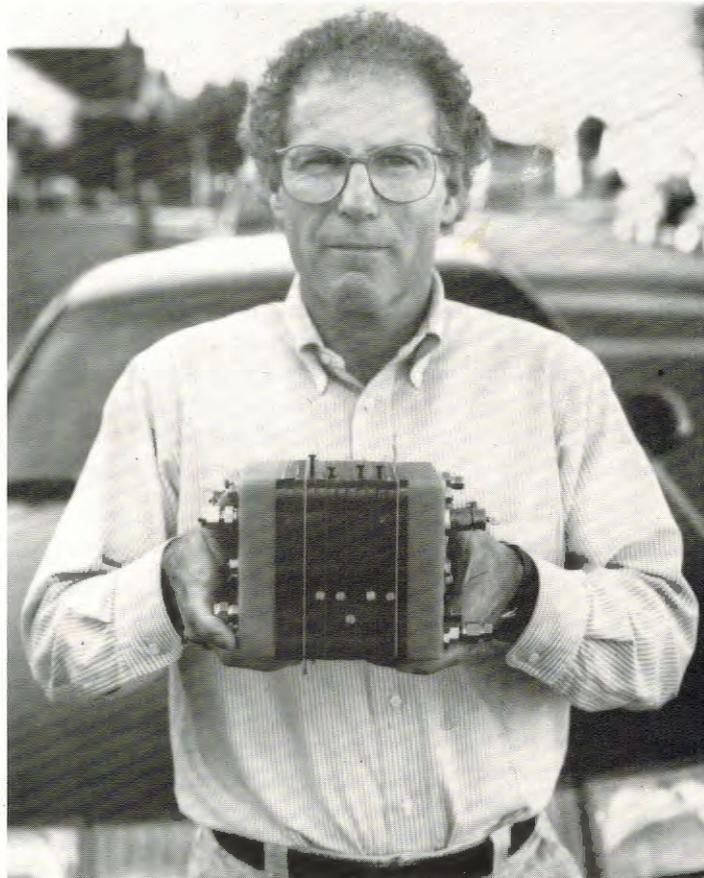
Humboldt designing pollution-free car

A major effort toward creating a pollution-free car of the not-too-distant future has been set in motion at Humboldt State University.

The University recently received a \$598,900 grant to design and build a hydrogen-fuel-cell vehicle. The funding came from L.W. Schatz, a businessman from Tacoma, Wash. Peter Lehman, Humboldt State environmental resources engineering professor, will lead the research effort to create a hydrogen fuel cell capable of powering a vehicle at 65 miles per hour for up to 200 miles.

Lehman, the director of the Humboldt State Schatz Solar Hydrogen Project, said he and his research associates will collaborate with engineers at the University of California at Davis Fuel Cell and Electric Vehicle Laboratory. The Humboldt State group will build the 20-kilowatt hydrogen-fuel-cell power plant while a team headed by David Swan at U.C. Davis will construct the vehicle chassis and drivetrain. Lehman envisions the car being test-driven in 1997.

"A fuel-cell vehicle has two big advantages over a battery electric vehicle," Lehman said. "It has a 200-mile range and it can be refueled in minutes. A battery



Professor of Environmental Resources Engineering Peter Lehman holds a prototype of the hydrogen fuel cell he is designing.

car has a range of only 60-80 miles and must be recharged overnight."

Lehman said the vehicle would be run on a hydrogen fuel cell, which would weigh less than most gasoline-powered engines and take up approximately the same space as the motor in a regular-sized passenger car.

At present, battery and

diesel motors. And, the hydrogen fuel can be made from solar energy right here in America, so it is renewable and secure."

This renewable process is already at work at the Schatz Solar Hydrogen Project, located at the Telonicher Marine Laboratory in Trinidad. Solar panels produce electricity from sunlight which is used by an electrolyzer to split water into hydrogen and oxygen. The system has been up and running since summer 1993 with excellent results and a perfect safety record.

With this new grant, Schatz, the founder and board chairman of General Plastics, has provided \$1.7 million to Humboldt State for hydrogen energy research since 1989, including the development of the Schatz Solar Hydrogen Project.

In addition to his contributions to Humboldt State's hydrogen energy research, in 1987 Schatz gave the University a 385-acre farm and \$800,000 to foster study on harvesting hardwoods.

Humboldt State Vice President for Development and Administrative Services Don Christensen said, "Mr. Schatz's generosity is driven by an altruistic desire to make our country and world a better, cleaner place to live."

—Paul DeMark

fuel-cell vehicles are the only two types of vehicles which qualify as zero-emission vehicles (ZEVs) in California. Beginning in 1998, 2 percent of all new vehicles in the Los Angeles basin will be required to be ZEVs.

"Not only is a fuel cell quiet and non-polluting," Lehman said, "it is also twice as efficient as gasoline or