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U.S. automakers need to move into the passing lane

The April 2006 "**Stamping News Brief**" e-newsletter featured a discussion about how to fix the U.S. automotive industry. It cited a CNBC series of articles that addressed how the Big Three need to build better vehicles and companies: "**What will it take to fix the U.S. auto industry?**", "**Why Detroit needs to build better cars**", and "**It's not just about making better cars in Detroit**".

According to the articles, Detroit needs to stop playing catch-up to Japanese carmakers and be the first to introduce new technologies, such as cars that fix themselves, cost less to run, enhance the driving experience, avoid traffic jams, and cut fuel or insurance costs. They also must build vehicles that connect with buyers and make them repeat customers.

Automakers aren't alone in exploring new automotive technology. Students in an automotive technology class at Lansing Community College, Lansing, Mich.—future automotive industry workers—are building three internal combustion engines that will run on hydrogen. The college, located in the heart of the auto manufacturing belt, was tapped by the U.S. Department of Energy to develop alternative energy curriculum, train the work force in alternative energy, and educate the general public on alternative energy.

"Most people think the research is being done exclusively by the automakers. But it's also being done right here in this classroom," said Winston Lane, an automotive machinist consultant who is overseeing the project. "That's what makes this project so exciting. Research and development must be done before hydrogen-powered vehicles will be a cost-effective alternative to gasoline-powered vehicles, and we're a part of it."

"This is a real development project," said Howard Dillman, chair of the technical careers division in the school's transportation technologies department. "We are building what is essentially a race engine that can reach maximum RPMs with no problem while running on hydrogen. There aren't many universities working on this; we're trying to take it to the next step."

In 1807 Francois Isaac de Rivaz built the first hydrogen-fueled internal combustion vehicle, but the design was unsuccessful. An estimated 1,000 hydrogen-powered vehicles were produced in Germany before the end of World War II, prompted by an acute oil shortage. BMW and Mazda are among the companies with prototype hydrogen-fueled internal combustion engine-driven vehicles. Other automakers, including U.S. manufacturers, are investing in the slower, weaker, yet more efficient hydrogen fuel cell-powered vehicles. The online encyclopedia Wikipedia presents a good [overview](#) of hydrogen-power technology and its evolution.

New technology is being explored and introduced, but where do U.S. automakers stand in terms of creating vehicles that create customer loyalty? If the current list of top-selling cars in the U.S. is any indication, they have their work cut out for them. According to CNN Money's article ranking the **10 hottest cars** in the U.S., Toyota holds six spots:

1. Toyota Prius®
2. Mini Cooper®
3. Pontiac Solstice®
4. Scion xA®
5. Scion xB®
6. Scion tC®
7. Lexus RX400h®
8. Honda Civic®
9. Toyota Rav4®
10. Ford Escape Hybrid®

Clearly, U.S. automakers have a lot of ground to cover. It is hoped they and the schools that train future industry workers are in the passing lane, headed in the right direction.