

# A bicycle built for you

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Stylish, trendy and efficient, Velocis bicycles line up in a campus bicycle rack. Bantock and Hedberg are hoping the bikes will help reduce traffic around campus and promote bicycling instead of driving. Credit: Beatriz Verdugo/UANews

Recent graduates of the UA McGuire Entrepreneurship Program have launched Velocis, a company that promotes environmental sustainability and healthful living through use of custom-designed electric bicycles.

How would you like to start your own business right out of college? That's what University of Arizona students John-Mark Bantock and Taylor Hedberg did when they launched Velocis, a Tucson-based company that lets its customers custom-design their own electric bicycles.

The company aims to promote [environmental sustainability](#) and better

health through bicycling.

The students developed the idea for their company while enrolled in the McGuire Entrepreneurship Program at the UA Eller College of Management during the 2010-11 academic year.

"At the beginning of the year, students bring their ideas and start talking to other students to see if they have some common interests. Students get together in groups and start generating business-plan ideas," said Bantock. "Once you've settled on a problem, you start developing a business plan to address it."

Throughout the year, students work with mentors who are successful entrepreneurs and have the academic resources of the college to develop their plans. The teams present their ideas at an end-of-year showcase business plan competition, where, said Bantock: "Hopefully you've come up with a viable business plan that they then have the opportunity to launch."

Like many entrepreneurial successes, the team came upon the idea to custom-design [electric bicycles](#) almost by accident.

"It started with a totally different idea," said Hedberg. "We wanted to do some sort of bike-share program, because you see bike-share programs in different cities and we wanted to do it on a college campus. The twist could be using an electric vehicle such as electric scooters or [electric bikes](#)."

"It doesn't necessarily always make the most sense to drive a car around this area if you live on campus," said Hedberg, who regularly cycles to school. "A bike can be faster; it's more efficient so you're actually saving money, plus you're on a bike instead of in a car."

Together with fellow students Sam Ellis and Lindsey Erlick, Bantock and Hedberg formed a team to investigate the idea of launching a bike-share program on campus. The students traveled to Las Vegas to Interbike, the largest international bicycle show in the U.S., in search of a good electric bike to fit the ticket for their bike-share program idea.

"The more we talked to different people – and we talked to a lot of manufacturers of electric bikes and to a lot of retailers – we heard the same problems in the electric bike industry," said Hedberg. "A lot of lower-cost bikes had reliability problems and safety issues. The ones that did work really well were the super high-end, \$10,000 bikes."

The team saw an opportunity, said Hedberg, "to make a bike that's cool, stylish, more cost-effective and yet reliable, high-quality and high-performance. So we switched from trying to buy a bike to trying to make a bike to fit that hole that we saw."

"We were fortunate enough to win a few competitions in the program, which provided us with enough seed money along with some of our own money to get things started," said Bantock.

Awards that the team received throughout the yearlong McGuire program include first place at UA's Innovation Day held on campus in March, three experiential grant awards from the Hearst Foundation to help students put their ideas into practice and a subsequent award for best use of Hearst funds, and an innovation award from the drug company Sanofi-Aventis.

The team's award-winning streak culminated in its achievement of first place in the program's year-end showcase.

Upon graduation from the McGuire Entrepreneurship Program in May, Ellis and Erlick chose to pursue full-time jobs. Bantock and Hedberg

launched Velocis.

"We can offer a lot more flexibility to our customers by doing completely custom bikes," said Bantock. On the Velocis website, customers can select a bicycle frame and choose from more than 6,500 colors.

"You can build it up with any kind of gears you want; you can choose your saddle to be the most comfortable for you. You can customize everything down to a single chain link if you want to customize that or engrave the rims."

Velocis also makes custom non-electric bicycles and offers electric bicycle conversions for people who already have a bike that they like to ride. "Provided it's a decent bike that isn't going to fall apart, we'll convert it into an electric bicycle for them," said Bantock.

Regular bikes are priced from about \$350, and electric conversion kits start at \$1,200. "We only really start with high-quality stuff. We don't want to sell you a bike that's going to break down in a couple of months – that's the very problem that we're here to solve."

Since Bantock and Hedberg launched Velocis in August, they've seen a few unusual orders. "We've seen everything from customers wanting a recumbent trike that's electric to cargo bikes and road bikes," said Bantock. "Everyone's unique, and everyone's going to be using their bicycle for something different."

Velocis also does electric bicycle rentals and keeps a few of the more popular models for customers to ride, along with a few non-electric bicycles. "Our bikes are limited to 20 miles an hour so that you don't need a license to ride one," said Bantock. "You can either use the accelerator and just cruise on it almost like a motorcycle."

As energy-efficient and sustainable as possible, the bikes have a regenerative braking system similar to a Prius that allows cyclists to charge the battery when they use the brakes. The bikes also have levels of resistance that will automatically help you peddle when you need it and charge the battery at the same time.

"It pretty much turns you into Lance Armstrong," said Hedberg.

"Recently we've started doing utility bicycles that can take a lot of cargo," said Hedberg. "Essentially it's like a limousine bicycle with lots of big bags so you can load up a couple hundred pounds of gear, such as groceries. That's where the fact that the bike is electric really comes into play because you can still haul 100 pounds of gear around without feeling it up the hills."

Custom-designed bicycles offer numerous possibilities for campus uses, said Bantock. "We'd like to get a lot of the students that live on or close to campus to be able to get a bike through their sorority or fraternity. We can brand it for the sorority or fraternity and also cut them a great deal because we'll be able to do these bulk orders. We'd like to be able to reduce the cars around campus and get more people biking into campus with the electric."

Velocis also is working with the UA Office of Sustainability to promote use of electric bikes and cargo bikes by campus facilities personnel. "We can make them UA bikes," said Hedberg, suggesting that the bicycles be painted with the UA colors and logo.

"Our big goal is to figure out how we can take more traditional modes of transportation and apply them to urban environments in a place like Tucson," said Hedberg. "In Tucson and in a lot of other cities, there's a push toward environmental friendliness, an effort to reduce consumption and change behavior. We're looking into how we can enable those

changes in behaviors."

Provided by University of Arizona

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