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THE DIAMONDBACK

Engineering students participate in Mechanical Engineering Design Day

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A team of mechanical engineering students believe they have found a new use for bicycles — plucking the feathers off chickens 10 times faster than by hand.

The design for this chicken-plucking mechanism was just one of 20 displayed at Mechanical Engineering Design Day, which was held in the rotunda of the Jeong H. Kim Engineering Building yesterday. About 200 people gathered to peruse the displays as teams of senior mechanical engineering students presented their designs to students and judges.

[Marlin Steel Wire, a Baltimore-based company](#), sponsored the event, and according to company [President Drew Greenblatt](#), university [mechanical engineering graduates make up 20 percent of his employees](#). The company employs engineers to create [designs to be manufactured and distributed to clients internationally](#), including [Toyota and Caterpillar Inc.](#)

"We need smart, innovative engineers, and the mechanical engineers at the University of Maryland fill that need," Greenblatt said.

The chicken-plucking mechanism, which is powered entirely by energy generated by riding a bicycle, will be geared toward developing countries, such as Haiti, where people have to pluck their chickens by hand. The student design team, Team Prezizion, presented a detachable prototype that can attach to different types of bicycles.

"Our design takes two minutes to pluck a chicken instead of the 20 minutes it would take by hand," said Wesley Wathen, a senior mechanical engineering major. "We also discovered that the main source of transportation in developing countries is the bicycle, which is how we decided to use a bicycle to generate power."

The unique design attracted a great deal of attention from passers-by.

"I found the chicken [plucking design] most interesting because it's eye-catching and practical," said Colin Vale, a senior mechanical engineering major. "It also doesn't have any issues in the design."

Other design teams also developed practical solutions to everyday tasks. Team Kinetic created a device that harnesses energy from humans and uses it to charge portable electronic devices, such as phones and iPods.

"We wanted to do something technological and modern, as well as accurate and user-friendly," said Maximilian Epstein, a senior mechanical engineering major Maximilian Epstein. "This design is also sustainable, too."

A less technological design, demonstrated by Team Longboard Safety Brake, adds a much-needed safety feature to longboards — a braking system.

"We found that 30,000 people in the U.S. are sent to the emergency room yearly for longboarding accidents," said Matt Hinkle, a senior mechanical engineering major. "We created a brake so you can maintain balance on the board while trying to come to a stop."

Another team attempted to get rid of the long-hated ritual of shoveling the driveway after a snowstorm. Team Terp Tarp designed a heated tarp to be plugged into an outlet and put on the driveway before or after snowfall to melt the snow.

"I think that the heated tarp concept has the potential to be executed," said event attendee Vasili Tsirigotakis, a junior civil engineering major. "The concept is a really good idea and applicable in the real world."

Several designers said they especially appreciated the chance to interact with students from other majors about their designs.

"This is a great way to get feedback from non-mechanical engineers," Vale said. "For example, a psychology student could come in and give a reason why a design might not work, based on knowledge of psychology."

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