

Mando's chainless e-bike is headed for Europe in 2013 (w/ Video)

October 11 2012, by Nancy Owano



(Phys.org)—Car-choked city streets are inspiring adults to get on a bicycle for local transport. Reasons range from ecology to economy in getting around. Korea-based auto part maker Mando is unleashing the next step up in cycling, a chainless electric bike called Footloose. Sleek minimalist, Apple-evocative design, with technology combined, the Mando is a clear moving target for a mobile, Starbuck-struck generation of twenty-somethings. Mando has been showcasing the bike this year,

and its bike is due to hit the marketplace in Europe next year. The company has combined a throttle drive with pedal-assisted technology, This is a chainless bike that trend-watchers are calling the "i-Phone of cycling."

The bike has a hybrid drive system. By pedaling, mechanical energy transforms into electricity. The bike uses a [lithium-ion battery](#). A key feature about the bike is that it does away with the bike chain; it converts a rider's pedaling to electricity; the rider is the human "generator." [Cyclists](#) can power the bike up to 30 kilometers (18.6 miles) with the motor alone or they can use the pedal for more range. By adding battery energy, the standard range of 30 kilometers can be increased, say enthusiasts, to become a "light e-scooter."



According to the press statement, the Footloose hybrid drive system brings power directly to the drive wheel. When you pedal, [mechanical energy](#) transforms into electricity and feeds the e-bike battery. Using a throttle, the motor drive can be controlled.

The Footloose takes cues from [auto technology](#) with its Electronic Control Unit (ECU), which works with integrated sensors. The sensors recognize speed and slope. The rider can take advantage of an automatic gear changer to monitor terrain and adjust the motor's output as needed. A detachable [Human Machine Interface](#) (HMI) display can go up on the handle bar to display information such as distance traveled, speed and amount of electricity produced.

Another key point being promoted is that it folds up neatly. The bike is a collaborative effort of Mando and Meister. They also called on British designer Mark Sanders and Dutch e-bike expert Han Goes. Sanders describes the look as "clean like the latest smart phones, with powerful technology hidden inside." The resulting design was officially introduced at a show earlier this year and there are plans to have the bike on the European market by 2013.

More information: www.mandofootloose.com/

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