

# Jim Motavalli

New York Times contributor blogs about green transportation



## The bicycle you won't be able to live without

A revolutionary new device turns your existing bike into one powered by electricity. You can even equip it to tweet out pollution levels while it careen through town.

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The Copenhagen Wheel combines a motor, batteries, regenerative brakes and a controller — all in that big red circle. (Photo courtesy Super Pedestrian)

It's called the Copenhagen Wheel, but it was designed in another very green city, Cambridge, and came out of MIT SENSEable City Lab last year. Copenhagen, the most bike-friendly place on the planet, is the client in this enterprise designed to present an affordable alternative to [existing electric bicycles](#).

Sure, they'll love it in Denmark, where bicycles account for 37 percent of all commuting trips in the capital city. My guess is that this cool new invention is going to be a hit worldwide. Without the hype attending the Segway, the Wheel appears to be (to steal Steve Jobs' famous phrase) something that people didn't know they needed, but soon won't be able to live without.

You may have seen a Copenhagen Wheel on the marijuana-soaked TV drama "Weeds." For \$699 (soon to rise to \$799, when the first limited-edition sells out) what you get is a replacement rear wheel for your bicycle, integrating an electric motor (350 watts), lithium battery (48 volts, four-hour recharge), regenerative braking and an app (below) that works via Bluetooth for Apple or Android phones. There's no throttle as there is in regular electric bikes; the Wheel learns your riding behavior and supplies power according to specs you set up on the app. Choose Turtle for the most push, Eco for the least. Assistance gets you to 20 mph, and 30-mile cruising range.



[Super Pedestrian](#), the spinoff start-up that's marketing the 12-pound Copenhagen Wheel, is encouraging users create their own apps. Bike messengers in Copenhagen have equipped their Wheels with nitrogen-oxide sensors measure pollution levels in the city, and the data is automatically tweeted. As it is, you get a flood of information how far you've ridden, calories consumed, average speed and so on.



Installation looks easy enough with a single wrench — any single- or multi-speed bike is fair game. Designer Ass Biderman, associate director of the SENSEable lab, says the team “decided to focus on the back wheel of the bike keeping the natural experience of cycling, really allowing people to just pedal, still allowing them to enjoy the benefits of motorized transport.”



The Wheel team (above) has already got competition, including a Kickstarter-led entry from FlyKly (which could cost for \$500) and a hybrid design from Zehus in Italy (due next year). If Super Pedestrian will send me one, I'll rep from the driver's seat. But here it is on video: