


# The Copenhagen Wheel, A Self-Powering, Internet Connected Bike Hub

By [Charlie Sorrel](#)  December 16, 2009 | 6:09 am | Categories: [Transportation](#)



A new design wants to give your bike the abilities of a hybrid car, a frequent-flyer program, a gym and a networked navigation device, all by simply swapping out the back wheel.

The Copenhagen Wheel bolts on to any bike and adds a slew of new functions. First is the energy regenerator, which stores energy normally lost when braking and keeps it ready for when you need a power boost. Inside the same sleek hub you'll find a torque meter, a Bluetooth radio, a three-speed hub-gear, a GPRS connection and pollution sensors.

What on earth is all this for? The answer appears when you take out your iPhone. The phone acts as a controller for all the electronics, and working in concert they will tell you the traffic and air conditions, act as a cyclocomputer by counting calories burned and miles traveled. And the frequent-flyer scheme? Instead of air-miles, you'll earn bike-kilometers (or green miles, as they are smugly referred to on the video). We assume these will be redeemable for wholegrain organic foods and the like.

The Copenhagen Wheel was designed by a team at MIT and is not yet available to buy. When it is, we doubt that such a visually and literally heavy device will be seen on the fixed-gear bike in the video — with hub-gears it is much more suited to the Dutch city bike. And one more thing about that video. Just who thought it was a good idea to ride cobbled streets on a fixed? Don't you *want* to have children?

[The Copenhagen Wheel](#) [Senseable/MIT]

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