



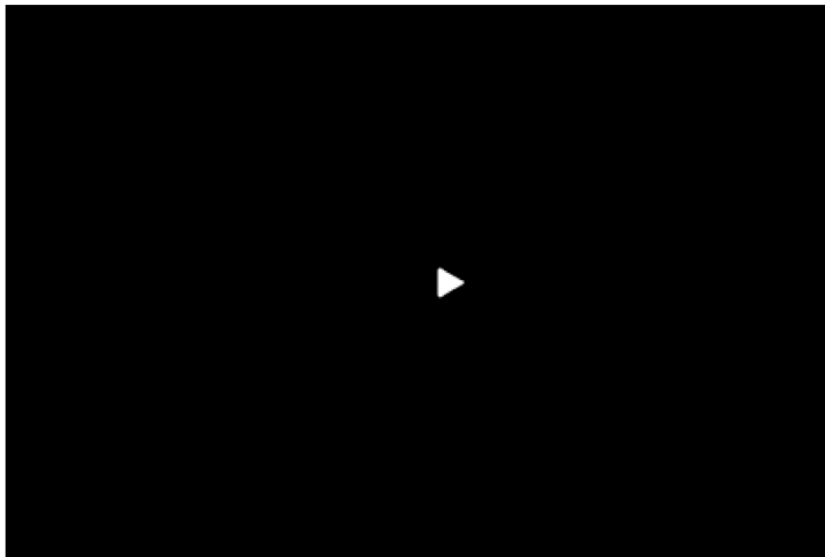
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## Copenhagen Wheel: the Future Cycling Experience

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Researchers at the Massachusetts Institute of Technology have designed a bicycle wheel that could well revolutionize urban transportation worldwide.

It's a wheel that collects energy produced from using the bicycle's brakes. The energy is then stored in a motor that can in turn help the cyclist when the pedaling gets tough.

Sensible City Lab director Carlo Ratti explains.

[Carlo Ratti, Sensible City Lab, MIT]:

"Well, you know, in a certain sense if you take the power of the motor and you take the power of a cyclist, it's like you had one or two people, invisible people, cycling there with you and for you into the bike. So, basically, you apply a torque and the wheel will double your torque, or more than double your torque."

Associate Director Assaf Biderman says the Copenhagen Wheel will help people in big cities switch to cycling.

[Assaf Biderman, Sensible City Lab, MIT]:

"You start biking and the motor adds to your power so you feel all of a sudden very light. Hilly cities are suddenly not so challenging anymore because they seem flatter, you seem very strong when you climb uphill. Very large cities seem smaller because you have energy to carry on longer. And this is really important today because they are based on an urban form that was built when energy was almost taken for granted, based around cars – like L.A., like Beijing now, like Tokyo, like Houston – suddenly these places can become more reasonable for biking."

And when applying GPS or Bluetooth to the wheel, the riders can change gears using their smart phone.

[Assaf Biderman, Sensible City Lab, MIT]:

"If you have a smart phone, you can download an App, which lets you change gears as you ride, through the phone. It lets you set the amount of energy that you allow the motor to supplement you with. So you can now decide, give me 25 percent more, give me 50 percent more, give me one hundred percent more. Or if you want to exercise you can ask the motor to work against you. All this is done through the phone."

The phone application also allows you to interact with the environment.