

Replace Your Front Wheel with This One, And Go from Bike to Ebike

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The Internet has been buzzing over the launch of a new method of converting a standard bicycle into an ebike, and while it [isn't exactly brand new](#) (the company has already built and improved upon 5 generations of prototypes before this), the GeoOrbital wheel is a completely fresh take on the electric bicycle wheel.

Said to be inspired by the light cycles from the classic movie *Tron*, the GeoOrbital does away with spokes and a central bearing altogether, in favor of a non-rotating module that instead propels the wheel with a powered roller (and two guide rollers) that grip the inner section of the wheel's rim. The module, which is integrated into the wheel, has a 500W brushless electric motor that spins the wheel, along with a removable and lockable 36V lithium-ion battery, a USB-out port (for charging other devices), and a thumb-activated throttle that clips to the bike's handlebars.

The GeoOrbital wheel doesn't include a standard inflatable tube and tire, but instead relies on flat-proof solid foam tire, which is said to "act and weigh the same as a traditional bike tire." The whole setup is quite a bit heavier than a traditional bike wheel, weighing in at about 20 pounds (9 kg), but considering that it includes virtually everything needed to go from bike to ebike in less than a minute, that may not be an issue.

According to the company, all that's required to switch a bike over to an electric-assist bike is to pull off the existing front wheel of the bike, replacing it with the GeoOrbital (unless you have front disk brakes), and to then attach the throttle to the handlebars. Once installed, the rider can either be propelled by the electric motor alone, or pedal along with it to increase the usable range. The wheel is designed to be easily removable for security or charging, but can also be secured with a standard bike lock, and the units include a lock for keeping the battery secured to the wheel.

At the moment, the GeoOrbital wheel will be available in two sizes, a 26" (66 cm) model with a 6 Ah battery said to have a range of up to 30 miles (when used in conjunction with pedaling), and a 700C model (compatible with 28" and 29" front forks) with a 10 Ah battery said to have a range of up to 50 miles (with pedaling). The wheels have a rated top speed (without pedaling) of about 20 mph (32 kmh), with recharge times estimated to be 3 to 4 hours, depending on the battery configuration.

Currently, the [GeoOrbital Wheel](#) is open for pre-orders on its (already successful) [Kickstarter campaign](#), with backers at the \$699 USD level able to reserve a wheel (said to be a \$950 retail value) for delivery in November of 2016.
