



WIND POWER (TAGS/WIND-POWER) CELL PHONES (TAGS/CELL-PHONES) RENEWABLE ENERGY (TAGS/RENEWABLE-ENERGY)

Micro-windmills could power cell phones without outlets

[Travis Andrews \(/author/travis-andrews\)](/author/travis-andrews/) Tuesday, January 14, 2014 - 4:54pm



Yes, we can use our own urine to [power our cell phones \(http://www.dvice.com/2013-7-22/researchers-create-pee-powered-cellphone\)](http://www.dvice.com/2013-7-22/researchers-create-pee-powered-cellphone), but the *ability* to do something doesn't necessarily translate into a *desire* to do

that thing. Luckily, a UT Arlington electrical engineering professor designed a micro-windmill that might render urine-powered phones completely unnecessary.

Most people don't have room for a windmill in their backyard, but they could probably carry one around if it was 1/10 the size of a grain of rice. Which, spoiler alert, is exactly how big each of these little guys is. This makes them perfect for powering cell phones. You could stick hundreds of these micro-windmills on a cell phone, which would generate energy for said phone. Just wave it around in the air or hold it up to the wind. The small windmills create electricity, which is then captured by the cell phone's battery. The implications are obvious but enormous. It could mean that your cell phone (and any other electronic device you could adhere the windmills to) would never run out of batteries. Ever. You could be lost in the cave with nothing but a cell phone, but if you've got the ability to wave that baby around, you'll have power.

The windmills are made from nickel alloy components, which are flexible enough to withstand the necessary wind needed for them to capture electricity even though they are only 1.8 mm wide. In fact, there is even talk of thousands of the little windmills being attached to houses, where they could generate energy for lighting and security. Production is cheap, too: it costs essentially the same to make a single micro-windmill as it does to make hundreds on a single wafer, so they can be easily mass produced.

The micro-windmills have been successfully tested, so now it's a waiting game as the researchers at UTA determine how to realistically commercialize them.

Via **UTA**

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Vrmithrax 4 days ago

Great concept in theory... But when a dust particle is the size of a meteorite to the windmill, it could be tough to keep them operational. And let's not even get started on pollen season, those babies would clog up micro-

windmills in no time!

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Fred Hahn 5 days ago

OK, all well and good, but how much juice does one of these little suckers generate? In the micro-, pico-, or maybe femto-amp range? How many of these are needed to charge a cell? Enough room on a cell case? Inquirin minds want to know....

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