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## This Super-Tiny Windmill Could Someday Charge Your Phone (<http://gizmodo.com/this-super-tiny-windmill-could-someday-charge-your-phon-1499248318>)



Researchers at the University of Texas at Arlington  
(<http://www.uta.edu/news/releases/2014/01/microwindmill-rao-chiao.php>) have come up  
with a way to build a nickel alloy windmill so small, 10 of them could be mounted on a grain of

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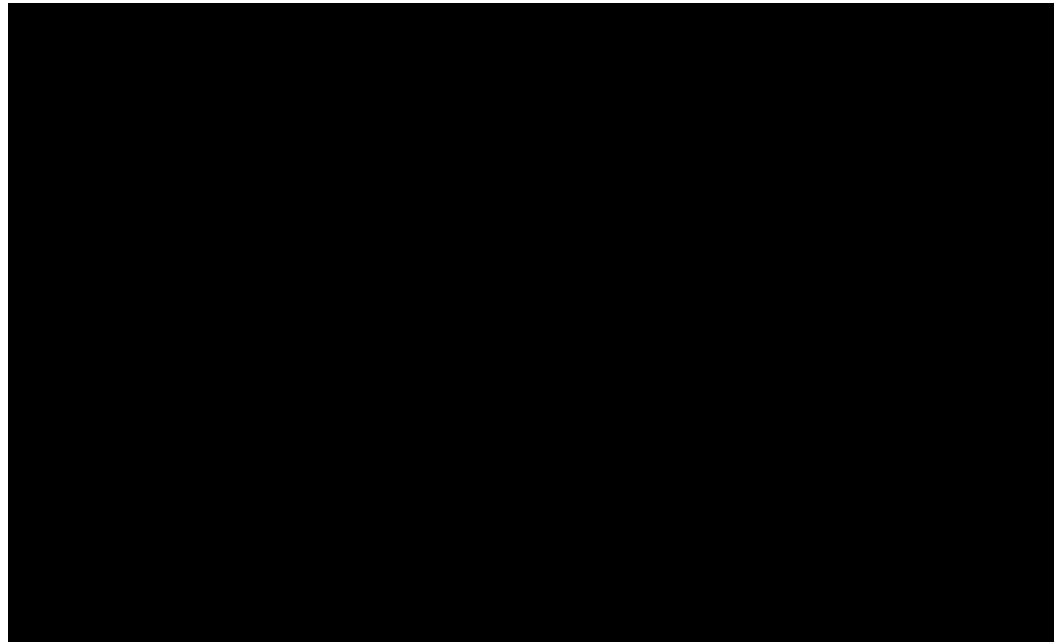
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(<http://gizmodo.com/a-cheat-sheet-for-the-next-100-quintillion-years-1496248275/@robertsorokanich>)

rice. And if all goes as planned, hundreds of the little things could end up in a case that charges up your smartphone.

UT Arlington's Smitha Rao and J.-C. Chiao

(<http://www.uta.edu/news/releases/2014/01/microwindmill-rao-chiao.php>) designed the windmill, which at its broadest is just 1.8mm wide. Built from nickel alloy for rigidity, the little fan is self-assembled using wafer-scale semiconductor electroplating principles and a technique the team likens to origami. Rao and Chiao have partnered with WinMEMS Technologies Co. (<http://www.winmemstech.com/en/page/custom60/>), a Taiwanese company researching ways to build micro electro-mechanical systems, to bring the baby windmill to reality.



"Imagine that they can be cheaply made on the surfaces of portable electronics," Chiao said

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Electricity-generating windmills churn out free energy as long as the wind is blowing. So strapping one to the roof of your car where there's... Read... (<http://gizmodo.com/strap-this-wind-turbine-to-your-electric-car-and-you-ca-1497320336>)

(<http://www.uta.edu/news/releases/2014/01/microwindmill-rao-chiao.php>), "so you can place them on a sleeve for your smart phone. When the phone is out of battery power, all you need to do is to put on the sleeve, wave the phone in the air for a few minutes and you can use the phone again." Maybe she could design a case that aims the windmills below the user's chin, so you could charge up your phone simply by talking on it (<http://gizmodo.com/strap-this-wind-turbine-to-your-electric-car-and-you-ca-1497320336>). [University of Texas at Arlington (<http://www.uta.edu/news/releases/2014/01/microwindmill-rao-chiao.php>) via Engadget (<http://www.engadget.com/2014/01/11/university-texas-arlington-micro-windmills/>)]

*Image: University of Texas at Arlington*

(<http://www.uta.edu/news/releases/2014/01/microwindmill-rao-chiao.php>)

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hamst333 (<http://hamst333....>)

3 ★  (</posts/1499312918/reply>)


so we have this amazing new technology that we could use to power buildings in remote impoverished places but the only use we can think of is how to make our cellphones last longer. Proof technological innovation on its own cannot solve our problems.

## capitalism

7 participants



laylaholic (<http://laylaholic.ki..>)


9 ★  (</posts/1499255991/reply>)

I'd be quite skeptical of how effective this could be. Seeing that the power output of a wind turbine scales with the square of its diameter, you'd need thousands of these to get any kind of utility.

Today 9:18am (<http://gizmodo.com/id-be-quite-skeptical-of-how-effective-this-co>)



riffmifflic (<http://riffmifflic.ki..>)

3 ★  (</posts/1499282982/reply>)



Today 12:26pm (<http://gizmodo.com/so-we-have-this-amazing-1499312918>)



Robert Sorokanich (<http://ro...>)

5 ★ (/posts/1499315705/reply)

I think it's more that cellphones can take advantage of this windmill's teensy weensy size. To power a building, you're much better off using a grownup windmill.

Today 12:34pm (<http://gizmodo.com/i-think-its-more-that-cellphones-can-take-advantage-of-1499315705>)




SkipErnst (<http://skipernst.ki...>)

★ (/posts/1499344582/reply)

You appear to have a bias already, but go to the source article

(<http://www.suta.edu/news/releases/2014/01/microwindmill-rao-chiao.php>) and read

 dude111151 (<http://dude1111...>) has developed and it might change your mind some. They foresee lots of uses for their work including

lighting, security, windmills that are used to power a home, and if they could, they would not do it quickly. You'd probably be waving your phone around for 5 hours to charge it halfway.

Then, what about the possibility of you simply holding this phone through the sleeve? Wouldn't your hand CRUSH a section of the windmills?

Today 10:37am (<http://gizmodo.com/i-dont-believe-tiny-windmills-like-that-could-put-out-1499276005>)



dude111151 (<http://dude1111...>)

★ (/posts/1499294379/reply)

Agreed, that thing blows.

 SkipErnst (<http://skipernst.ki...>)

★ (/posts/1499342608/reply)

How much power does it produce ... and how does it even collect that power?

Today 1:40pm (<http://gizmodo.com/how-much-power-does-it-produce-and-how-d-1499342608>)

4 participants



m4nt3 (<http://m4nt3.kinja.co...>)

12 ★ (/posts/1499261454/reply)

In this article: Writers who do not understand energy density inwind and the associated issues with wind generation. I don't know why these blogs don't just repost the press release, if they aren't capable of meaningfully understanding what it means.

Today 9:42am (<http://gizmodo.com/in-this-article-writers-who-do-not-understand-1499261454>)



hyperboleonahalfshell (<http://...>)

★ (/posts/1499295890/reply)

The article quotes J.C. Chiao, of UT Arlington, as the one talking about *someday* placing the tiny windmills on a smartphone case and Mr. Chiao is one of the developers of the tiny windmill. I'm sure Mr. Chiao was just speculating at a possible, maybe, someday kind of idea of how this technology could be used. The author of the article didn't come up with the idea one of the people that developed the device did. The author only expanded on that idea by using a little imagination.

Today 11:41am (<http://gizmodo.com/the-article-quotes-j-c-chiao-of-ut-arlington-as-1499295890>)



m4nt3 (<http://m4nt3.kinja.co...>)

By the way, sorry for writing iphone instead

1 ★ (posts/1499362649/reply)

of phone, i meant phone in general, however  
i've gotten so used to saying iPhone (since  
that's what i use) that it's become a habit

Today's free discussion can be approved by the  
author or users followed by this blog.

Correct. The press release is BS and hypes it  
up. It's an advance in micro manufacturing,  
not energy generation. Quoting the press  
release verbatim, written by the school's PR  
staff, rather than a publication or anything  
real, was my implied criticism. The  
additional quotes are hilarious, and  
obviously hyping up the taiwanese  
manufacturer who is giving them money.  
Again, regurgitating press releases with no  
critical thought is shitty. We might as well be

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