



## Micro-Windmills Can Charge Your Mobile Devices

 **DARREN WILTSE**

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A team from University of Texas, Arlington have developed a micro-windmill that generates wind energy and may become a solution for mobile devices like cell phones whose batteries drain quickly under heavy use. Smitha Rao and J.C. Chiao designed and built the devices that measure only about 1.8 mm at the widest point. They explained that to give you a sense of scale that you could fit ten of these tiny windmills onto a single grain of rice. Wind could power the charging by waiving the device in the air, placing it in front of a fan, holding it up to an open window, or in the direction of the wind travel when outdoors.



They also hope to port the technology to larger, yet still tiny in comparison to large outdoor windmills to supplement home energy use. Rao's design combines origami practices into conventional wafer-scale semiconductor layouts so complex that 3D moveable mechanical structures can be assembled by commercially available electroplating techniques. The micro-windmills were first tested successfully in September 2013. The micro-windmills performed successfully under artificial windows without any bending or fracture of the material due to utilization of durable nickel alloy and intelligent aerodynamic design.

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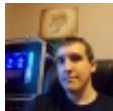
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**Keith Bell** · Parts Inspector at Toyota (Apm)

hmm wonder if this could be an add-on for secondary powering of a laptop using the fans that cool your fan to provide additional run time using this method to regen some of the power back.

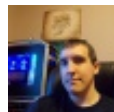
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**Corom Denison**

Probably wouldn't make a difference. And it'd clog up the vent a tiny bit, which would lower cooling efficiency a tiny bit, which would make the CPU a tiny bit hotter, which would make the fan spin a tiny bit faster to cool a tiny bit more (yodag we heard you like tiny bits...).

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**Keith Bell** · Parts Inspector at Toyota (Apm)

Corom Denison lol it's just an idea since pretty much not a lot of options of self replenishment minus solar power which would require you to do the one thing that people do not like... leave your device in the sun to damage the paint work, rubber, and also screen if it's a tablet or smartphone \*will turn it green\*

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**Corom Denison**

Keith Bell I've left a lot of my devices in the sun, none have gotten damaged. In my opinion it's OK to leave a laptop in the sun, just don't leave it turned on. Maybe if they made more white laptops they could implement solar panels in the lid? Someone, quick, get on the idea and rake in all the munnies!

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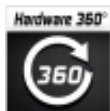
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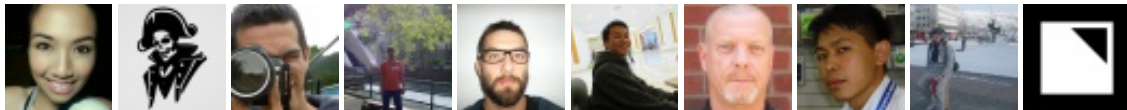
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