

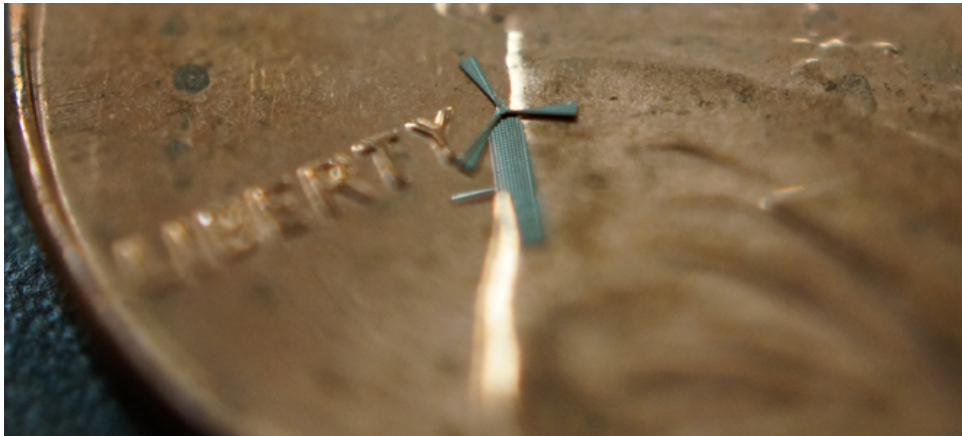


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Micro-windmills to recharge your cell phones?

POSTED BY MARIO DUBOIS - 12 FEB 2014 - SHORT NEWS



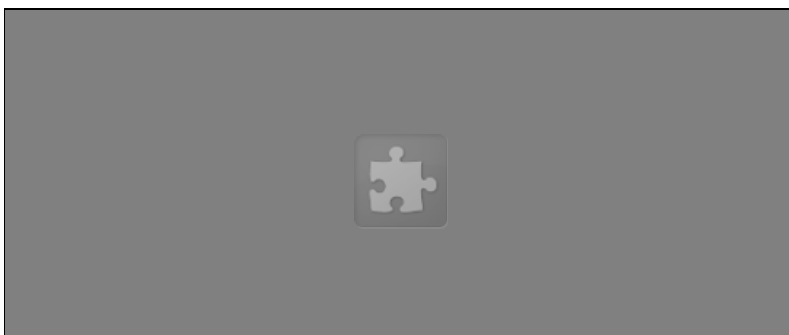
Your cell phone is almost empty and you don't have your charger. What could you do? In fact, if you had the chance to get a sleeve for your cell phone made by [Smitha Rao](#) and [J.-C. Chiao](#) from the [University of Texas Arlington](#), you would just have to find a place or a window with a bit wind and the hundreds of windmills embedded in your cell phone sleeve would recharge it! But how could they put hundreds of wind mills on a sleeve of a cell phone? Make them so tiny that you could 10 of them on a grain of rice.



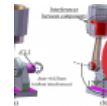
[Img1]

Herb Booth, from the University of Texas media center explains that :

“Rao’s designs blend origami concepts into conventional wafer-scale semiconductor device layouts so complex 3-D moveable mechanical structures can be self-assembled from two-dimensional metal pieces utilizing planar multilayer electroplating techniques that have been optimized by [WinMEMS Technologies Co.](#), the Taiwanese fabrication foundry that took an initial interest in Rao’s work”.



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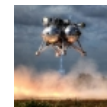
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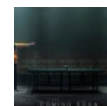
Kuka robot vs Timo Boll: Victory![...]



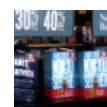
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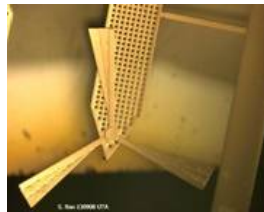
In septembre 2013, the micro windmills were tested successfully under strong artificial winds without any fracture in the material. As explained by Chiao, "the micro-windmills work well because the metal alloy is strong and flexible and Smitha's design follows minimalism for functionality."

Dust in the wind could become a problem and jam several micro windmills : The resaearch team will need to find a solution to this potential problem...



[Img2]

When the internet will be connect to everyday objects (**Internet of things**), study group **Idate** predicts that 80 billions of those will be on the market in 2020. Those objects will need electricity to communicate, a mega market for a hopefully succesfull micro windmills technology!



[Img3]

[+ Reference - Pictures](#)

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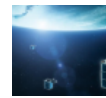
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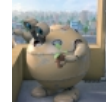
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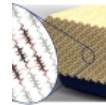
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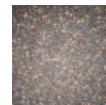
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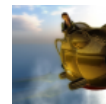
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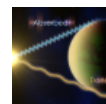
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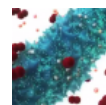
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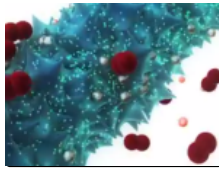
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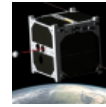
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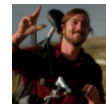
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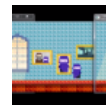
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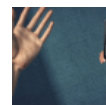
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