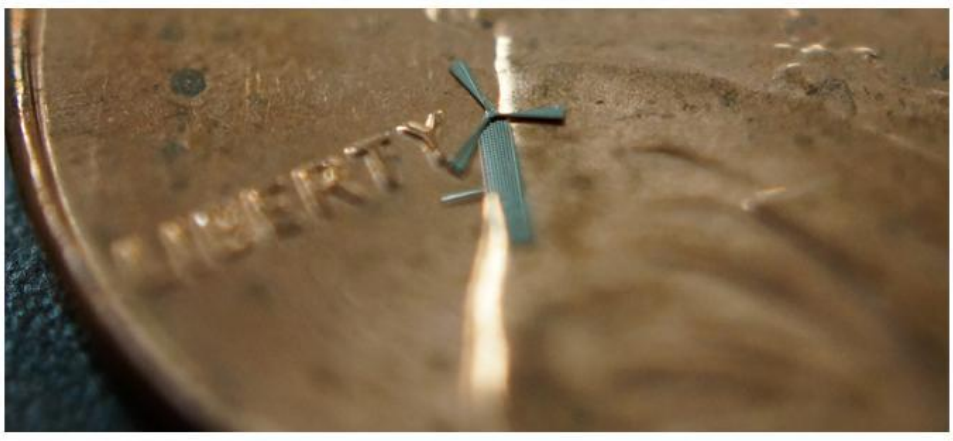


Micro-windmills to recharge your cell phones?

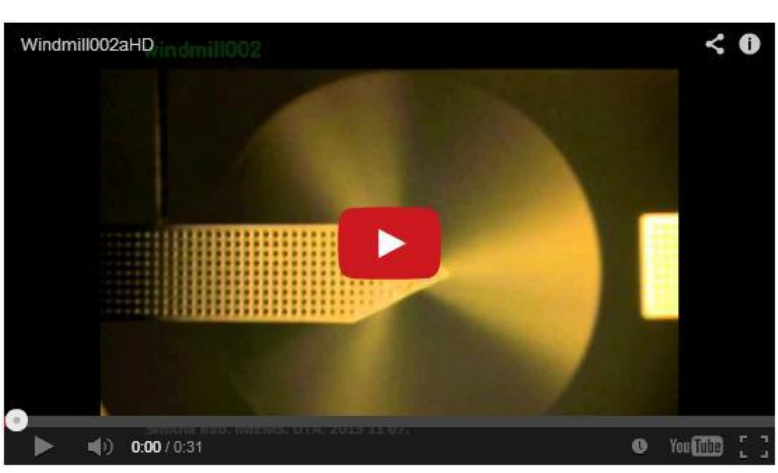
POSTED BY MARIO DUBOIS - 12 FEB 2014 - SHORT NEWS

[Img1]

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.

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".

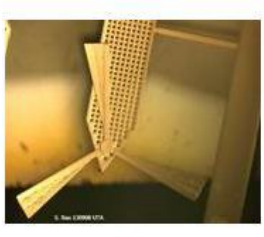


In septembre 2013, the micro windmills were tested successfully under strong artificial winds without any fracture in the material. As explained by Chiao, "the micro-windmills work well because the metal alloy is strong and flexible and Smitha's design follows minimalism for functionality."

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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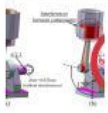
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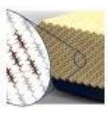
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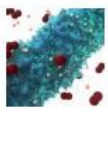
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