



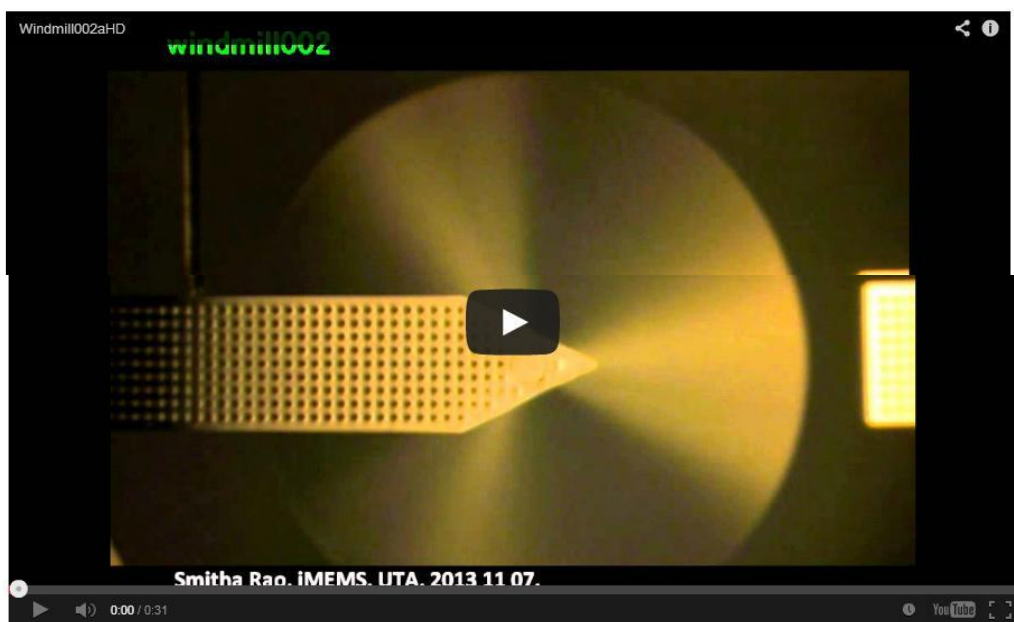
scientists develop micro-windmills to recharge smartphones

scientists develop micro-windmills to recharge cell phones

image courtesy UT arlington

research associate smitha rao, and J.C. chiao, an electrical engineering professor at the [university of texas arlington](#) have designed a micro-windmill capable of generating enough wind energy to recharge cell phone batteries. the device measures about 1.8 mm at its widest point – a single grain of rice could hold about 10 of the minuscule machines. energy created by waving a cell phone in the air or holding it up to an open window on a windy day generates the electricity that is collected by the battery – hundreds of the windmills could potentially be embedded in a sleeve for a smartphone.

'by blending origami concepts into conventional wafer-scale semiconductor device layouts, the design allows for complex 3D moveable mechanical structures to be self-assembled from two-dimensional metal pieces utilizing planar multilayer electroplating techniques,' explain rao and chiao.



video courtesy winMEMS technologies

the new technology could be applied in the future to build micro-robots that can be used as surgical tools, sensing machines to explore disaster zones or manufacturing tools to assemble micro-machines. because of its small size, flat panels with thousands of windmills can be essentially produced and mounted on the walls of houses or buildings to harvest energy for lighting, security or environmental sensing and wireless communication.

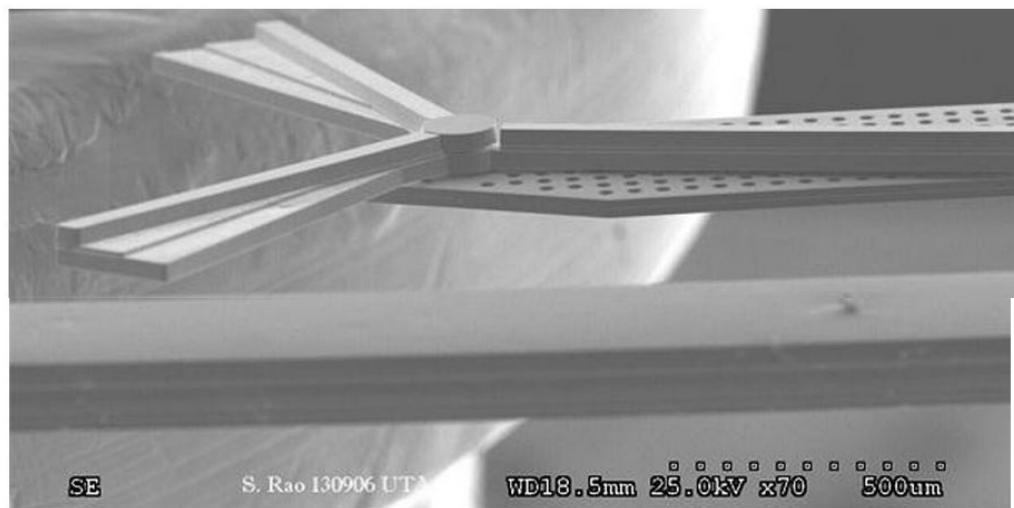


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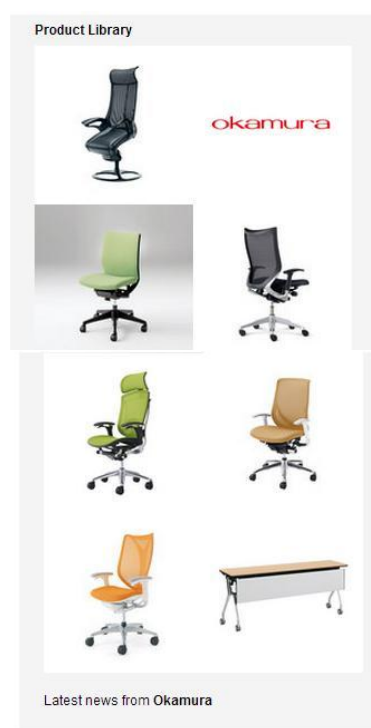
rodrigo caula | designboom

jan 15, 2014

Some misleading stuff here. First, they say “micro-windmill capable of generating enough wind energy to recharge cell phone batteries” but don’t mention that there is actually no generator to make the electric energy. Second, they say they’ve got “...mechanical structures to be self-assembled from two-dimensional metal pieces...” It doesn’t look like self assembly. Rather, it’s just assembly.



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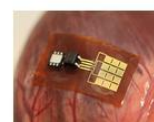
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