

Your electricity may someday be generated by micro-windmills smaller than rice

By George Chidi

Sunday, January 12, 2014 18:26 EST



Researchers at the University of Texas at Arlington announced the development of experimental micro-windmills a tenth the size of a grain of rice, which might someday power electronics like cell phones with a wave of the hand.

Hundreds of the windmills could be embedded in a sleeve for a cell phone, [the university noted in a release](#) touting the innovation.

The project developed out of work by Smitha Rao and J.C. Chiao as a way to make maximum advantage of an advanced fabrication technique used by a WinMEMS, a Taiwanese semiconductor firm. The micro-windmills can be made in an array using batch processes, reducing the fabrication cost because making one device costs about as much as making hundreds or thousands on a single wafer.

Done inexpensively enough, flat panels with thousand of windmills could be mounted on the walls of houses or building to harvest energy for lighting, security or environmental sensing and wireless communication.

[Phys.org notes](#) that UT Arlington will hold the intellectual properties while WinMEMS explores the commercialization opportunities, and that UT Arlington has applied for a provisional patent for the devices.

Watch a video demonstrating the new devices below.

