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PORTABLES

Meet the Tiny Windmills That Could Charge Your Phone Someday

Ten of these little power plants could fit on a grain of rice

By Noah Rayman | Jan. 15, 2014 | 4 Comments

Forgot your charger? Open a window and let your phone get a little air.

Researchers at the University of Texas Arlington say they have designed tiny windmills that could hook up to a cellphone and convert wind into battery life. The windmills are so small—10 can fit on a single grain of rice—that hundreds could potentially be connected to a phone to gather energy from natural wind or from waving the phone in the air for a few minutes.

Though the technology is at the earliest stages of development and may never make it to mass market, the researchers say it has already drawn the interest of the Taiwan-based technology company WinMEMS, which has agreed to commercialize the micro-windmills.



Courtesy of J.C. Chiao

A MEMS micro windmill, designed by Dr. Smitha Rao and J.C. Chiao, Professor of Electrical Engineering at University of Texas - Arlington.

The designers, electrical engineering professor J.-C. Chiao and graduate research associate Smitha Rao, drew from traditional origami concepts and modern semiconductor device layouts to create the tiny power plants, which use durable nickel alloy material. They say the windmills could be used for quotidian tasks like energizing portable electronics or powering the lights in your home.

“We’ve only scratched the surface on how these micro-windmills might be used,” Rao said in a statement.

