

htxt.africa

[Daily deals](#)
[Discussions](#)

[Features](#)
[Work easy. Play hard.](#)
[Windows 8](#)

[Reviews](#)
[htxt.women](#)

[Iconia | W5](#)
[Discover more](#)

[Talk to us on Twitter](#)
[Follow us on Facebook](#)

News & Features

Latest news on htxt.africa



NEWS • READ BY DAVID GREENWAY

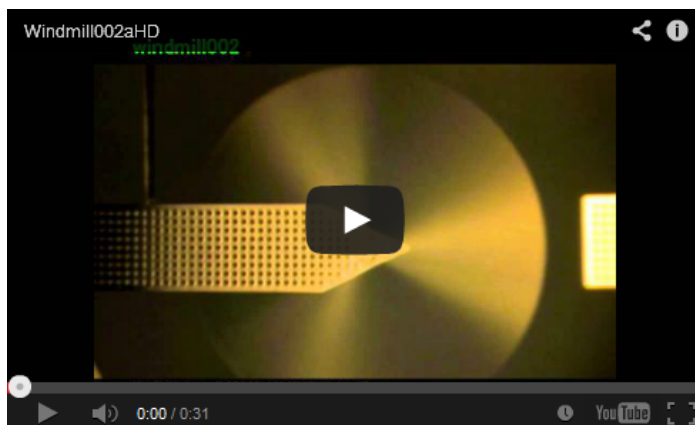
JAN
13

“Grain of rice” windmills to power smartphones of tomorrow

When you think of wind energy the first thing that springs to mind are vast fields of towering monoliths silently spinning away. But researchers at the University of Texas Arlington have taken the concept of a wind farm in a different direction by shrinking them down into ‘micro-windmills’ that could one day end up being used to charge gadgets like your smartphone or tablet.

The micro-windmills measure just 1.8mm across and are made out of flexible nickel alloy components that have been able to “operate under strong artificial winds” without breaking. The windmills are so small in fact that around ten of them could fit onto a single grain of rice.

Because the windmills can be manufactured by the hundreds of thousands on wafers, similar to how microprocessors are made, the cost to make them falls drastically. “Imagine that they can be cheaply made on the surfaces of portable electronics,” said researcher J.C. Chiao. “When the (your) phone is out of battery power, all you need to do is to put on the sleeve” with the micro-windmills on it and “wave the phone in the air for a few minutes and you can use the phone again.” It all sounds fantastic but the researchers haven’t given out figures on specific power output for the windmills.



clientèle. While we may not see the tiny windmills on any smartphones or tablets for a while this isn't the only novel way of charging your cellphone we've seen emerge. Check out this story of some **enterprising Kenyan engineering students** from 2009 who charge their phones off of a bicycle.

Related Posts:

- LG to start making flexible displays for smartphones
- All day battery with 3D printed batteries a possibility
- Researchers discover a way to make electricity with urine
- Sony's 4K micro adverts at Wimbledon
- Mobile phones could be hazardous to our physical health

Like this story?
Share it!



4



1

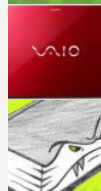
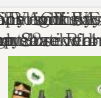


ure <

Recently Published



Comments by



next week

Our latest Tweets



htxt @htxtafrica
PlayStation 4s available at SA
retail from 7 February
wp.me/p3AMiX-3TM
Expand

34m



htxt @htxtafrica 48m
FNB confirms more PlayStation 4s on the way [wp.me/p3AMiX-3TE](https://www.wp.me/p3AMiX-3TE)

48m

Tweet to @htxtafrica





httx.africa

Features
Reviews
httx women
BUY NOW

Work easy. Play hard. Windows 8

Some features require Windows 8.1. Update available through Windows Store. Internet access required; fees may apply. Some apps sold separately, vary by market.

Subscribe to our Newsletter

Email *

Subscribe!



VANGUARD
TRIPODS - BAGS - CASES - OPTICS

Reliable, Innovative equipment
for the SA woman!
Carbon-fibre tripods,
Strong, stylish bags,
Lockable "airline" cases
What a Range!



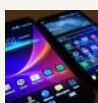
Mobile features



REVIEWED: LG G Flex



Samsung openly hints at
Galaxy S5 announcement
on 24 February



Hands On: LG's new
curved and bendable G
Flex UPDATE: SA Pricing



5 app essentials for the
aspiring 2 Oceans runner



5 free news apps to keep
you connected

All day power.

The perfect balance of extra battery power and durable protection
from whatever you find yourself getting into.
Presenting the **juice pack helium** for iPhone 5 from mophie.
* Soon available for Samsung Galaxy S4



Buy now!

mophie.

Quickfire stories from the blog



Facebook to let users edit

htxt.africa

Daily deals
Discussions
News

Features
Reviews
htxt.women



South Africans put a heartwarming twist on the #NekNomination craze



6 South Africans make it into Google's Africa Connected Semi-Finals



Watch Bill Nye debate whether creationism has a place in the scientific era



Win a Nexus 7 tablet with Minuum

Post Tags

Green energy

MEMS

Renewable Energy

Renewables

University of Texas Arlington

Wind energy

Our best features



FEATURES · HOW TO · THINK
PRIVACY SPECIAL: 5 ways you can better secure your data



NEWS · READ
Help us find this Facebook fool

htxt.africa is...



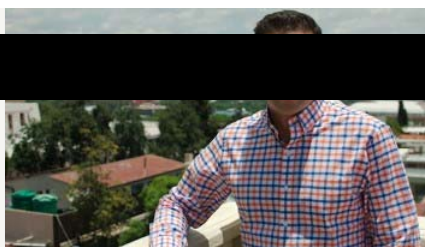
<http://www.htxt.co.za/2014/01/13/tiny-windmills-could-power-the-gadgets-of-tomorrow/>

2/6/2014

htxt.africa

Daily deals
Discussions
News

Features
Reviews
htxt.women



FEATURES · THINK

"How can we make news as interesting as Facebook?"



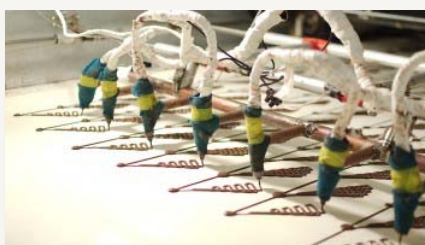
OPINION · THINK

By SANRAL logic, the Ministry of State Security is staffed by idiots



NEWS · READ

How did SA's first 'digital' Model C school do in its first Matric?



FEATURES · THINK

South Africa's own Willy Wonka and the 3D printed chocolate factory

[+ Who makes htxt.africa?](#)

[+ Get in touch](#)

[The opinion pieces](#)



htxt.africa

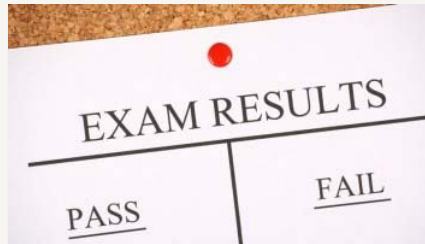
Daily deals
Discussions
News

Features
Reviews
htxt.women



FEATURES · THINK

We drove an electric car around Jo'burg (and we liked it)



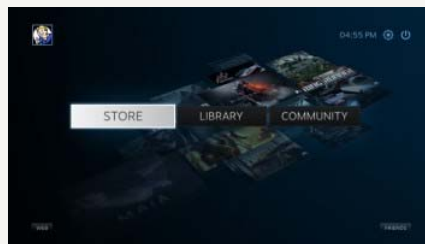
FEATURES · THINK

Phasile, feyilile? Google's Zulu translator tested



FEATURES · THINK

Tech won't save the world (but it will help a little)



BLOG · FEATURES · GAMES · NEWS · THINK

Forget PS4 and Xbox One, SteamOS is the future of gaming

+ Got a story tip?

+ About htxt.africa

Tiny Windmills of Tomorrow: The tiny windmills of tomorrow could power your smartphone. But they're not for the dysfunctional relationships



