## Tesla's $5 Billon Battery Factory: Spending Big to Save Big #ManufacturingMonday


Telsa is planning to build an enormous "Gigafactory" in order to make cheaper batteries for electric cars. Via IEEE Spectrum.

> Tesla Motors plans to build a huge U.S. battery factory capable of supplying 500 000 electric cars annually by 2020. The $5-billion "Gigafactory" is expected to produce more lithium ion batteries in 2020 than all the lithium-ion batteries produced worldwide in 2013—a huge step on the road to driving down the cost of battery packs and mass-market electric cars.
>
> A completed Gigafactory running at full production capacity in 2020 would allow Tesla, founded by Silicon Valley entrepreneur Elon Musk, to have an annual battery cell output of 35 gigawatt-hours. The Gigafactory's initial launch in 2017 would coincide with Tesla's plans to introduce a lower-cost, mass-market electric car in the same year, according to The Wall Street Journal. But lower lithium-ion battery costs could also open the door for new power storage opportunities beyond electric cars.
>
> "By the end of the first year of volume production of our mass market vehicle, we expect the Gigafactory will have driven down the per kWh cost of our battery pack by more than 30 percent," said a Tesla Motors press release…

Read more.

Filed under: batteries & power,manufacturing — by Jessica, posted March 3, 2014 at 4:00 pm
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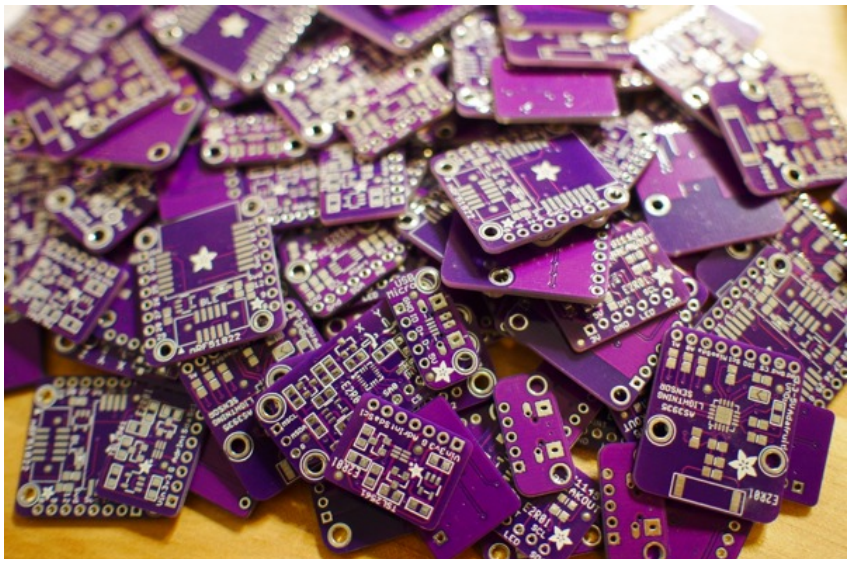
## From the desk of Ladyada #manufacturing



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Filed under: manufacturing,robotics — by Jessica, posted at 11:00 am
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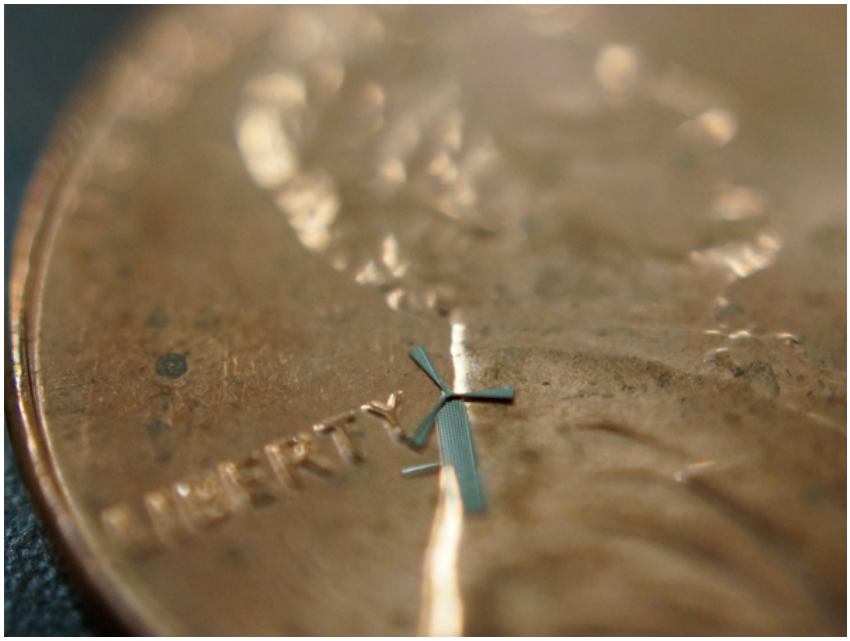
## These Tiny Windmills Work, and Ten Will Fit in a Grain of Rice #Manufacturing Monday #MEMs



This conceptual design for tiny windmills is adorable and could potentially be very useful. Via Wired.

> Imagine a world where your iPhone was out of juice and there wasn't a Lightning cable for miles—wouldn't it be great if you could just blow on your phone to bring it back to life?
>
> Professor J.C. Chiao and Dr. Smitha Rao of the University of Texas at Arlington have developed a new windmill technology that could shake up the power industry and make emergency recharges possible. Unlike the industrial giants that sit in off-shore windfarms, these diminutive devices measure just 1.8 millimeters at their widest point and ten could fit on a grain of rice.
>
> These windmills would be instantly recognizable to Van Gogh, but the itty-bitty blades are examples of a thoroughly modern class of of device called Microelectromechanical Systems, or MEMS. These micro machines are widely used in electronics manufacturing, an average smartphone contains at least half a dozen, but the brittle silicone assemblies are typically reserved for static applications. Advances in nickel-alloys add durability to the structures and open up a variety of applications, including assemblies with highly dynamic parts.

Read more.

Filed under: batteries & power,manufacturing — by Jessica, posted at 12:00 am
Comments Off

## Stratasys launches multi-material colour 3D printer #3DThursday #3DPrinting #3D


Stratasys launches multi-material colour 3D printer, from the BBC:

> The world's first multi-material full-colour 3D printer has been launched by Stratasys, the owner of the MakerBot range of printers.
>
> It features "triple-jetting" technology that combines droplets of three base materials, reducing the need for separate print runs and painting.
>
> The company said the Objet500 Connex3 Color Mutli-material 3D Printer would be a "significant time-saver" for designers and manufacturers.
>
> It will cost about $330,000 (£200,000).
>
> By incorporating traditional 2D printer colour mixing, using cyan, magenta and yellow, the manufacturer says multi-material objects can be printed in hundreds of colours.
>
> While the base materials are rubber and plastic, they can be combined and treated to create end products of widely varying flexibility and rigidity, transparency and opacity, the company said.
>
> Objects can be printed in a range of colours and material strengths
> Stratasys marketing manager Bruce Bradshaw told the BBC: "This will help industrial designers reduce the time it takes to bring prototypes to market by 50%." …

Read more.


Every Thursday is #3dthursday here at Adafruit! The DIY 3D printing community has passion and dedication for making solid objects from digital models. Recently, we have noticed electronics projects integrated with 3D printed enclosures, brackets, and sculptures, so each Thursday we celebrate and highlight these bold pioneers!

Have you considered building a 3D project around an Arduino or other