

T-shirt charges your phone by absorbing ambient sound (w/ video)

July 4 2011, By Bryan Nelson

First there was tie-dye, then there was hypercolor. Could piezoelectric fabrics that charge your mobile phone while you wear them be the next big T-shirt fad? That's what the French telecom company, Orange, is counting on, reports the Telegraph.

The shirts utilize ambient sound as a catalyst to produce <u>electric voltage</u>, and were rolled out just in time for the Glastonbury Music Festival in Britain. Developers hoped that the shirts would offer a convenient, ecofriendly way for festival goers to charge their phones while they're rocking out away from the grid.

The material used in the shirts is made from a product called piezoelectric film, which is capable of transforming sound waves into an electric charge via the compression of interlaced quartz crystals. Once that electric charge is generated, it is stored in a reservoir battery which can, in turn, be used to charge your mobile device.

<u>Prototypes</u> for the technology are being called "Sound Charge." They don't quite have the most fashionable of looks just yet, but it's their forward-thinking, eco-friendly design that ultimately makes them wearable. Besides, unlike most fashion trends, these shirts actually serve a purpose.

After a weekend of mosh pits and camping out, the shirts will undoubtedly need to be washed. The good news is that Sound Charge's developers already thought of that, too. All of the shirt's key electronic



parts can be easily removed so that the shirt can be washed just like any other T-shirt.

The Glastonbury Festival was the ideal venue for testing the prototypes because of all the <u>ambient noise</u>, but people who spend a lot of time away from noisy concert scenes may want to wait for the technology to develop before donning their own Sound Charge T's. According to the technology website The Register, even over the course of a loud weekend at Glastonbury, the shirts would only store about six watt hours. That might "recharge a <u>smartphone</u> once, if you're lucky." Even so, that may be all the charge you'll need over the course of a weekend.

The shirts' charging ability may eventually be boosted by being combined with other wearable piezoelectric items. Last year Orange produced Wellington boots with chargers in the heel that generated electricity with each step. Who knows, before long your entire wardrobe may become a portable, wearable power plant.

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