## Windpax Portable, Collapsible Wind Turbines Take A Turn At Off Grid Power

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The Windpax wind turbine system can be set up in less than two minutes and mounted on a number of surfaces.

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Keeping mobile electronic devices powered up can be difficult for the modern camper and hiker. Generating power from Mother Nature in the form of wind and sun is the preferred option for many, with a number of portable <u>solar</u> and <u>wind</u> generators emerging to fill this need. The latest is Windpax, a collapsible, portable wind turbine system designed to not take up too much space in a backpack.

The Windpax system's compact design isn't new. It's compact, cylindrical shape is very much in keeping with the wind capturing design behind Rupert Sweet-Escott's fixed <a href="Secret Energy Turbine">Secret Energy Turbine</a> system, but with the portability of the <a href="Trinity Portable">Trinity Portable</a> system.

According to Windpax, the system's charm is not only its portability but that it's collapsible, light-weight, adaptable and inexpensive. Looking to raise US\$50,000 through a <u>Kickstarter</u> campaign, the Windpax system can generate electricity where solar charging units might lose out, like at night or on cloudy days. It will, however, be useless if there's no wind.

If there is wind, the Windpax system uses the vertical turbine method that "cups" the air to spin the impellers, which in turn creates power to the internally housed generator. Devices like mobile

phones or other devices with USB charging capabilities can be charged direct from the turbine or from the removable battery.

According to the creators, their system can be set up in less than two minutes and has the ability to be hung from a tree or elevated surface in an inverted configuration, or attached to a table or vertical surface thanks to a removable clamp with a pivoting ball-head. This gives the system some interesting placement options as opposed to the straight-forward guy-wires and pole on the ground scenario.

For safety purposes, Windpax designed the system with flexible plastic vanes to reduce injury in case someone inadvertently walks into the turbine. And in the event of high winds, the vanes "break-away" from the main support and become flat so as not to become airborne.

This Wisp, the more compact of the two turbines, is designed to fit easily into a backpack. It weighs in at 4 lb (1.8 kg), and when collapsed measures out at 14 in (355 mm) in length and 3 in (76 mm) around. But after assembly the smallish turbine expands out to 24 in (610 mm) in length with the diameter increasing to 1 ft (304 mm) around. Total height including the main support is 6 ft (1.83 m).

Capable of generating 25 Watts under "average wind speeds" Windpax claims the Wisp can provide enough juice to power six mobile phones simultaneously. The Wisp's battery also has an integrated LED to allow it to be used as a flashlight or camp lantern, and can charge three mobile phones when fully charged.

The larger of the two models, the Breeze, is designed more for longer term outings at the cabin or camping. Weighing in at 9 lb (4 kg) the camouflage covered turbine stands upright at 10 ft (3 m) tall when fully assembled, with the wind-catching elements measuring out at 24 in (610 mm). According to Windpax, the Breeze can generate 100 W under average wind conditions and comes with a 12 volt adapter in addition to the supplied USB power connections.

Windpax' Kickstarter campaign runs until June 17, 2014, with \$120 the minimum pledge for a Wisp, while the Breeze model requires a pledge of at least \$245. If all goes to plan, the wind turbines should ship in September.

To see the Windpax wind turbine system in action, check out the video below.

Source: Windpax