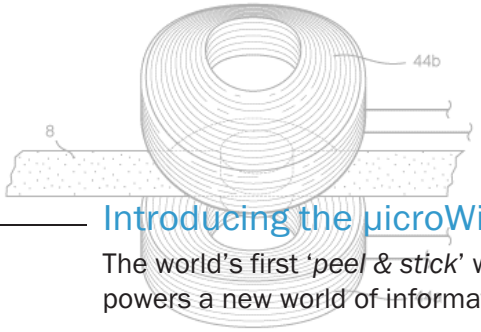
humdinger
wind energy



Introducing the µicroWindbelt™

The world's first '*peel & stick*' wind harvester powers a new world of information

Wind can now displace batteries.

For the first time, a wind energy harvester can power wireless sensors, opening up the industries of transportation, green buildings HVAC systems, urban air quality reporting, and infrastructure monitoring to truly wireless and battery-free information gathering.

The technology behind this new world of energy harvesting is Humdinger's µicroWindbelt™. Based on exciting developments in aeroelastic, non-turbine harvesters, the µicroWindbelt™ can continuously provide power to any application where air is flowing: under a vehicle, inside the ducting of a building, or at the out-flow of a factory.

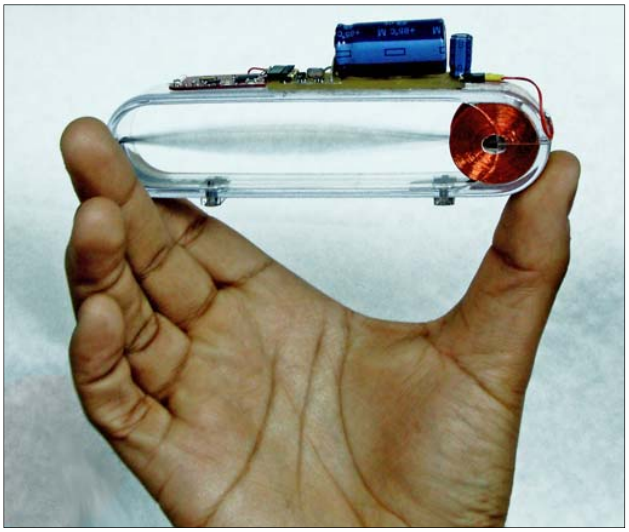
Producing power in air flows as low as 3 m/s, a µicroWindbelt™ the size of a cell phone provides a conditioned, buffered 3VDC supply to off-the-shelf Texas Instruments EZ430-RF2500 wireless sensor nodes, EnOcean nodes, and most any battery powered wireless application in fluid flow.

Power output @ 70 Hz, raw AC across load		
Airflow speed	3.5 m/s	0.2 mW
	5.5 m/s	2.0 mW
	7.5 m/s	5.0 mW

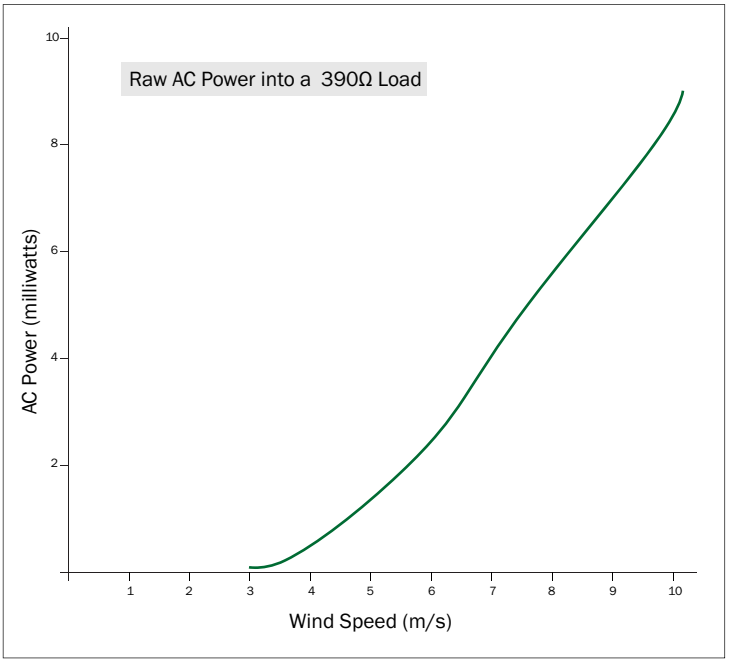
Dimensions	
Membrane length	12 cm
Membrane width	0.7cm
Casing	13cm x 3cm x 2.5cm

Other Information	
Energy*	50 - 200+ Wh
Buffer	15mF Supercapacitor
Gearing	None
Transduction	Electromechanical

*20% capacity factor, 20 year lifetime



The µicroWindbelt™ uses aeroelastic flutter & vibration rather than a spinning turbine to make micro-wind harvesting possible at 10x the efficiency of turbine-based approaches (Nature. Priya Nov. 8, 2005)



For more information, contact: Shawn Frayne, President
650.488.8013 (US tel.)
shawn.frayne (skype)
smf@humdingerwind.com

www.humdingerwind.com