

**“US Patent Issued to Boeing on Sept. 20 for "Wireless Aircraft Sensor Network" (Washington Inventors)”**

Bradley Mitchell and Edwin Lim came up with a “Wireless Aircraft Sensor Network”. Their abstract was released by the US Patent & Trademark office which stated it is "A method and apparatus in a sensor network in an aircraft for collecting data about the aircraft. The sensor network in the aircraft collects the data about the aircraft. The sensor network comprises a set of wireless sensors attached to a first set of locations for the aircraft, a set of wireless routers attached to a second set of locations for the aircraft, and a set of gateways connected to an aircraft data processing system. The set of wireless routers is capable of receiving the data in wireless signals transmitted by the set of wireless sensors. The set of gateways is capable of receiving data in the wireless signals from the set of wireless routers to form received data and is capable of transmitting the received data into the aircraft data processing system."

From: <http://www.militaryaerospace.com/index/display/avi-wire-news-display/1506403070.html>

**“A team of researchers at Sweden’s Luleå University of Technology have been inspired by the nervous system of fruit flies to develop advanced wireless sensors. “**

Somewhat similar to our research, Lulea University in Sweden put together a four year research project where they wish to develop sensors to be used in monitoring machines, medical applications, plantations, as well as railway and roadway navigation and monitoring. One of the researchers explained the impact of their research on people could be as revolutionary as the internet is on people’s lives. “The advanced wireless sensor networks feature microcomputers, sensors and wireless communication which enable the collation of information that can revolutionize our everyday lives and the industry. The wireless sensors will be capable of performing the task of analyzing and encoding information with low energy consumption, similar to fruit flies.” He then compared microprocessors to the biological nervous system of the flies. When dealing with larger scale systems, the sensor units must analyze more data while still not consuming much power, since a central computer is doing data analysis the goal of the project is to develop a “neuromorphic” chip which will efficiently encode and process the signals.

(“A neuromorphic chip consumes just a few microwatts and can perform the task using existing technology in a power saving mode. “)

From: <http://www.azosensors.com/news.aspx?newsID=3325>

## “Delphi Showcases Wireless Charging for Electric Cars”

At the Frankfurt Motor Show, Delphi Auto showcased test vehicles equipped with a wireless charging system which was provided by the WiTricity Corporation. Their system's performance passes market requirements, it uses “mid-range” wireless charging, which is based on “based on sharply resonant strong coupling and can transfer power efficiently even when the distances between the power source and capture device are several times the size of the devices themselves”. Delphi said that other systems in development are impractical because they use conventional inductive charging and only work over a limited distance range (where very accurate parking alignment would be required).

Delphi's charging sources can be buried in pavement and aren't affected by environmental factors. Their system automatically transfers power to the electric vehicle's battery at a rate of 3.3kW and does so with the smallest and lightest modules possible which minimizes the overall weight. The director of global hybrid vehicle development at Delphi said wireless charging will need to co-exist with plug in charging solutions so electric vehicle drivers can charge their vehicle when they're away from their wireless charging source.

From: <http://www.thegreencarwebsite.co.uk/blog/index.php/2011/09/18/delphi-showcases-wireless-charging-for-electric-cars/>