Voiceless Phone Call - Bridging thoughts to voice

ajay_bhargav, Fri Nov 06 2009, 11:35 am

The future of communication is here, From telegram to telephone and telephone to mobile and now Ambient Corporation has demonstrated a "voiceless" phone call. The call was made using a neckband called Audeo, which translates thoughts into speech by intercepting nerve signals. Although the device's recognition abilities are currently limited to 150 words, is the company predicts it will be fully functional by the end of the year. Possible applications range from helping the disabled to performing discreet phone calls in public places. The Audeo, based on ultra-low power MSP430 microcontroller (MCU) technology from Texas Instruments Inc.



Michel Callahan says that the production of nerve signals for the Audeo requires "a level above thinking", meaning a conscious effort must be taken. A user must think specifically about voicing his words, or the Audeo will not intercept the signals. The new device has previously been used by handicapped people who were able to control wheelchairs using their thoughts.

The Audeo is a wireless sensor worn on the neck to capture neurological activity that the brain sends to the vocal cords, and then digitizes this activity using analog and digital technology to turn it into speech. Thanks to the extremely low power consumption of TI's MSP430 MCUs, the Audeo can last over eight hours on a single charge, giving people the ability to interact with their world knowing they will be able to communicate.

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[Source: **Texas Instruments**]