



Wireless Surface Electromyograph System

1 Description

Cedar Solutions' WiSEMG is a flexible wireless system specifically designed to acquire surface electromyography signals, but that can be easily extended to capture and process many other biological signals or motion-related signals.

The system consists of one or more base stations, connected by means of an USB interface to a control PC running our complimentary GPL-licensed SD-WMG-32001 user interface software, and several sensing nodes that acquire, amplify, digitise, and wirelessly transmit the biological or mechanical signals to a base station.

Each base station can handle a number of wireless transmitters, the exact limit depending on the type of signal being acquired (please refer to the particular transmitter datasheet for details).

2 System components

Currently, the system is composed of the following components, and more are being researched and will be added in the near future:

- SD-WMG-32001: user interface software with system diagnostic and signal live-view and recording capabilities.
- CS-WMG-12001: wireless surface electromyograph and linear acceleration sensor transmitter node.
- CS-WMG-12002: USB wireless receiver.
- CS-WMG-12003: USB wireless receiver with cradle charger and analog output ports. (pre-view)