



Technology

Data logger systems for monitoring wheelchair usage

Inventor

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Key Features

- Data logging system for ensuring safety and effectiveness
- Composed of commercially available products
- Monitor a variety of power wheelchair features
- Transmits data wirelessly to technicians or healthcare providers

Stage of Development

Reduced to practice with prototype system developed

Keywords

- Rehab/Assistive Device
- Wheelchair
 - GPS
 - Sensor
 - Data logging
 - Safety

Patent Status

None

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Data Logger Safety System (VA Reference No. 05-149)

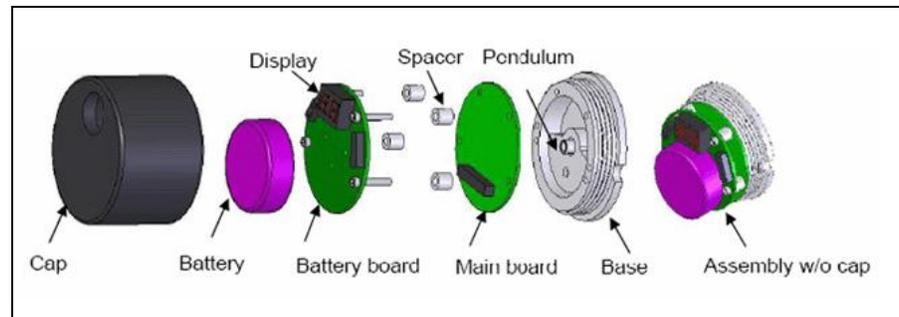
Novel system for monitoring wheelchair usage to enhance safety and ensure effectiveness of wheelchair features

Technology

The Department of Veterans Affairs has developed a novel data logger system for monitoring wheelchair usage to enhance safety.

Description

This device enables researchers to more thoroughly investigate the effect of interventions on safety, participation, and activity, which provides important support for public policy and helps facilitate improved wheelchair designs. The data logger system developed by the VA mounts on a power wheelchair and operates on its own internal batteries. The device is a combination of tilt, height, and pressure sensors; a data logger; and a GPS board with cellular technology that links the wheelchair users with a host station to transmit data.



Competitive Advantage

Unlike currently used wheel rotation data loggers, the present invention:

- Has the added ability to monitor a variety of power wheelchair features.
- Has an LCD for user feedback versus two LEDs.
- Has a rechargeable Li-Poly or equivalent battery versus non-rechargeable/non-standard batteries.
- Incorporates a wireless or cradle based data transfer versus unit disassembly for data transfer.

Status

The Department of Veterans Affairs is looking for a partner for further development and commercialization of this technology through a license, and the VA inventors are available to collaborate with interested companies through a Cooperative Research and Development Agreement (CRADA).