

Wheelchair with Dynamic Occupant-Tilt Feature

Intellectual Property

Patented

Lead Inventor

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Desired Partnership(s)

Licensee
Commercial Development

Categorized As

Medical Devices

Unmet Need

Individuals that are confined to a wheelchair or a bed may develop injuries related to the constant pressure of their body against another object. Pressure injuries can develop within a matter of hours and may take up to several weeks to heal. They are painful, can cause serious injury, and in severe cases, result in death. Current standards of care recommend an individual using a wheelchair to be repositioned ideally every 10 to 15 minutes or minimally every 2 hours. Currently, caregivers are responsible for remembering to constantly reposition the individual according to the standards of care. This manual regimen is resource intensive and subject to human error.

Solution/Technology

This programmable system automatically controls the power drive device of a seated support system to reduce the need for constant manual manipulation by caregivers, helping to lessen caregiver burden, to prevent human error, and to decrease risk of pressure injuries.

Advantages

- Fully tiltable seated support system reduces prolonged pressure to a singular area
- Power drive system mechanically adjusts the degree of tilt without manual manipulation
- Ability to customize or use pre-determined schedules supports personalized plans of care dependent on an individual's needs
- Networked control system provides remote accessibility and programmability