



Technology

Wheelchair convoy system

Inventor

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Key Features

- Provides ability to transport multiple people with mobility difficulties at one time
- Eliminates the need for unsafe practices, reduces staff required, and reduces time involved in transport
- Compatible with manual and power wheelchairs
- Encourages participation in group activities due to removing the current limitations in moving a group of people with mobility difficulties

Stage of Development

Reduced to practice with prototype system developed

Keywords

- Medical device
- Wheelchair
 - Assisted device

Patent Status

Provisional application 60/958,554

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Wheelchair Convoy System (VA Reference No. 07-098)

Novel system that allows one attendant to transport a group of people more efficiently while ensuring safety

Technology

The Department of Veterans Affairs has developed a wheelchair convoy system (WCS) that will allow one attendant to transport a group of people safely at one time.

Description

The wheelchair convoy system consists of a manual wheelchair frame with motorized rear wheels, a processor, and a physical or “virtual” linkage between the chairs.



To view a video of the WCS in action, please go to this link:
http://www.at-sciences.com/projects/three_chairs_slalom.mov

Competitive Advantage

The developed convoy system will reduce the time that people with disabilities spend waiting for someone to move them between locations, reduce staff time and physical effort required for transportation, and thereby also increase social and therapeutic opportunities for clients while accommodating staffing limitations.

This wheelchair convoy system:

- Eliminates the need for unsafe practices such as pushing two wheelchairs at the same time by holding one handlebar on the back of each wheelchair, or pushing one wheelchair from the rear with one arm while pulling the second from the front with the other arm.
- Provides a mechanism for evacuating wheelchair users from a facility in the event of an emergency.
- Is compatible with both powered wheelchairs and manual wheelchairs.
- Reduces time, cost, and safety measures required to transport groups of people in a vehicle (cart, van, bus, etc.).

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).