Disability Aid for Dressing in a Wheelchair with The Trouser Chair

Technology #m11-015

“Lead Inventors: Austin Brauser, Stanley Chen, Islam Shawki, Philippe Putzeys

Disabled Individuals Challenged by Simple Task of Dressing Themselves

There is a significant population of disabled and elderly individuals who, while capable of independent living, require assistance while dressing. Current assistance for donning pants involves specialized clothing and/or awkward tools. Neither solution is ideal; specialized clothing draws public attention to a wearer’s disability, while current tools are typically not well suited for this particular application. The trouser chair is a device designed for the simple application of pants without any assistance or the use of specialized clothing.

Wheel Chair with Special Brackets Enable Putting on a Pair of Pants Using No Leg Motion

This technology consists of a chair and a pants bracket. Together, these two components allow a user to sit down and put on a pair of pants in a few minutes without requiring leg movement. The chair has two armrests, one of which can be lowered. When the armrest is lowered, the user can slide into the chair from another chair, such as a wheelchair. The user then loads the pants onto the bracket and rests the bracket at their feet. A remote control is used to lower the seat while the user is suspended on a sling strap. The pants can then be pulled up to the user’s hips, and the chair can then be raised again by remote control. Finally, the sling strap is removed and the pants can be buckled as normal. This technology works with any pair of pants with belt loops. Future improvements will allow fully-automated pants application.

Applications: • This technology can be used by individuals who are disabled or elderly and incapable of the motions required for the normal dressing process • This technology may be incorporated into existing wheelchairs to make the trouser application functionality a built-in feature

Advantages: • No specialized clothing is required; any standard pair of pants with belt loops will function properly • Quick, requiring only about five minutes for pants application • No leg motion is required, and the chair can be easily entered and exited from by sliding • Individuals who previously required third party care for home living may be able to live independently, as they will no longer require assistance while dressing

Patent Status: Copyright

Licensing Status: Available for Licensing and Sponsored Research Support”

Inventors

Austin Brauser

Philippe Putzeys