

17. Title: An assistive transfer system for wheelchair users

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Key Words: Wheelchair, Detachable, Armrest, Assistive

Domain: Healthcare

Summary: A wheelchair is developed to assist transferring of a patient from the wheelchair to any destination position. The wheelchair has at least one modified wheel having a detachable rim and a rotatable armrest positioned on the same side of the wheelchair as the modified wheel. The detachable rim part is removed by creating a gap between the wheelchair and a destination medium. The rotatable armrest is rotated to bridge the gap. The arm-rest board acts as the transfer board and provides portability. Additionally, the armrest can be used as a table to work, eat or carry out other activities.

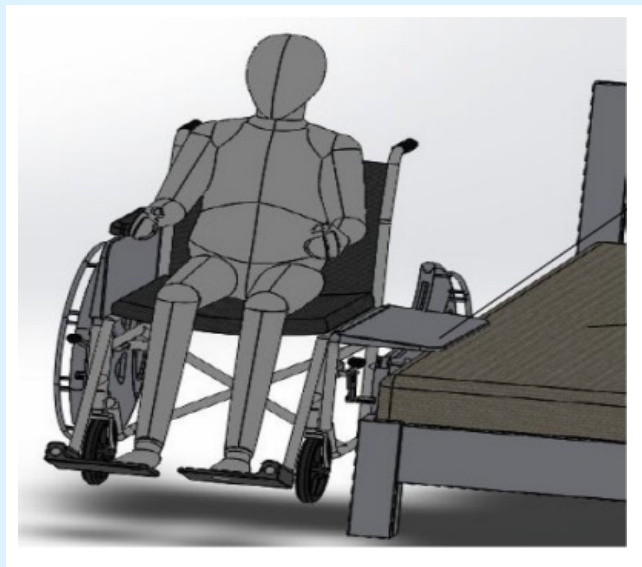


Diagram: Assistive transfer system for wheelchair users

Advantages:

- » Allows patient in the wheelchair to move as close as possible to the destination medium
- » Reduced fear of falling for patients
- » Reduced physical strain of the caregivers who can now shift wheelchair patients with much lesser efforts

Applications: wheelchair device

Scale of Development: A functional prototype is developed and its performance is evaluated by testing portability of a patient from wheelchair to multiple destination positions in IIT Delhi.

Technology Readiness Level: 6

IP Status: Indian Patent Application 201811027095