Redesigning the Personal Mobility Experience

Senior Capstone Program in Engineering (SCOPE)
Olin College of Engineering & Toyota Motor North America

Enhanced Perception
90% of power wheelchair users report frustration performing the following common tasks while navigating indoors.

- Navigating tight spaces
- Backing up
- Navigating doorways

Enhanced Interaction
Surveyed users shared that interacting with their power wheelchair is cumbersome in a few main ways.

- Control buttons
- Ways to interact
- Too many steps

Holistically design a system for power wheelchairs that improves user-chair interaction.

Increase user autonomy
Maintain user safety
Enhance quality of life

TOYOTA

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