A New Wheel Design to Improve Mobility in Nursing Homes Residents

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Current wheel chairs are designed for two major purposes:

1. To transport patients that are non or minimally ambulatory and
2. Provide mobility for long term non-ambulatory patients such as paraplegics.

In the nursing home setting, residents often use currently designed wheelchairs as a means of mobility. This is often cumbersome because of the current design of the wheelchair with rails in the bottom of the chair, the size and placement of the wheels as well as the inability to adjust the height of the chair.

The purpose of this project is to design a wheelchair for the specific use of these residents to improve the safety and effectiveness of mobility compared to current designs.

The student will be expected to review current designs and patents of wheel chairs, design and create a prototype of the new device, prepare a patent application if needed, and develop a marketing plan. Facilities will be made available to test the prototype.