The Problem
Due to reduced upper body strength, poor balance, and reduced stature, elderly people are prone to injury when acquiring overhead objects.

The goal is to create an assistive device that will allow users to acquire desired objects while preventing injuries and increasing perceived user safety.

Success will be evaluated by user-testing and comparisons to existing products.

The Task and Dangers
- Acquiring objects that are located on shelves or cupboards above the head.
- Currently, step ladders, stools and reachers are used to get these objects.
- Injuries occur by falling off these ladders or stools, or by dropping objects on themselves while reaching.
- Falls are deadly.
- Elderly people lose about 20 cm of vertical reach compared to the average adult.

User Concerns
“I don’t want to do anything in the kitchen without putting my hand down.”
Device must increase perceived safety of user.

“I have a hard time reaching objects in the back of my cupboard”
Device must allow user to reach objects in back of cupboard.

“I don’t even know how to use my thermostat!”
Device must be intuitive to use.

“I don’t want to bend down to grab my stool”
Device must be maneuverable and portable.

Key Features
Platform will rise to raise user up to two feet high.
Complete enclosure as the device raises you.
Easy to move and roll into position.
Multi functional - switches between raiser and walker
Wheels lock in place while device is raising
Sturdy aluminum design
Safety switches will automatically apply wheel brakes as platform is raised.

Acknowledgments
We would like to extend our thanks to Sunburst Medical for providing the prototype walker, Lutherwood Village on the Park for their invaluable feedback during the design process and Prof. J. Zelek and W. Chen for their guidance.