Introduction

While public transportation, public building entrance stairs, and home decks have wheelchair accommodation ramps, physically handicapped people in wheelchairs still struggle in environments that we take for granted. Leisurly activities, such as getting onto a boat from a dock or traversing a muddy terrain while taking a morning stroll, are actions that wheelchair users view with apprehension. Our goal is to provide a portable wheelchair ramp that is user friendly to the physically handicapped so that such activities will soon be effortless.

Benign Incline

Objectives

The project goal is to ensure handicapped user friendliness using the following design criteria:

- Attachable to wheelchair
- Light, easy to install
- Ramp is 6´ in length
- User input is electronic
- Purchase cost is affordable
- Controllable for increased stability
- Weatherproof
- Does not add to wheelchair width
- Safe, no wheel slippage

Design Specifications

Guidelines of a Wheelchair ramp according to the Americans with Disabilities Act:

- Maximum of slope of 1:12
- Minimum of 36 inches wide
- Surfaces must be slip-resistant and stable
- All edges must be protected to prevent anyone from slipping off

Design Ideas

- The ramp will be stored on the back of the wheelchair
- It will be aluminum to ensure that is it lightweight and durable

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