

Project Title:

Curb Climber Attachments on Light Wheelchairs

Team Members:

Adam Aldrich
Mercedes Whetstine
Silas McCulfor
Nicholas Jablonski

Faculty Advisor: Dr. Bongsu Kang

Area: **Mechanical Engineering**

Sponsored by: **Pelico Corporation**

Pelico Corporation of Ann Arbor, Michigan is looking to ways to help wheelchairs users in the real world. Pelico would like to incorporate new designs, and or attachments to wheelchairs to help them easily accomplish certain tasks. Pelico is seeking to design an attachment to light weight wheelchairs that will enable the user to lift themselves and the wheelchair up to climb onto a 6 to 8 inches curb. Pelico stated that they would also prefer the design to accomplish the task of getting back down the curve. The final weight of the design must be less than 5 pounds.

The successful completion of the project will require that the final weight, meaning that if the product was made out of stronger and lighter materials, would weigh less than 5 pounds. The wheelchair attachment must be powered manually by the wheels and lift the user up. The design must not interfere with the user of the wheelchair in anyway. The attachment must also be able to get the user and the wheelchair back down the curb in a safe manner.