

Safety Information

The device is planned to be built from aluminum and steel tubing, a heavy duty hydraulic cylinder and high test fabric for the sling. This leads to a high factor of safety and low probability of failure.

Team TUPAC

Portable Patient Lift



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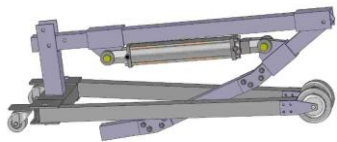
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Team Design Show

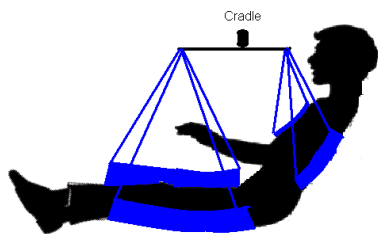
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The Lift, Folded for Transport

Introduction

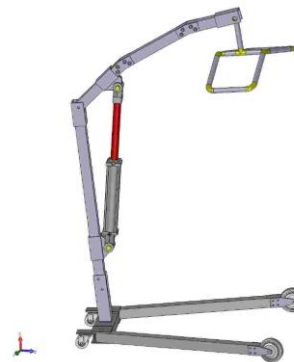
Our team is currently designing a mechanical lift device for our client. The system will allow him to move easily from his wheelchair to his bed and vice versa. The client will be in a semi recumbent position during the transfer. The system is being designed to be portable and lightweight, but still safe and easy to use.



1 Sling With Patient

Functional Requirements

- The device needs to vertically lift/lower the client
- The device must be able to move the client horizontally between his wheelchair and bed
- The device needs to be portable for travel by both car and plane
- The device should require minimal effort by the user
- The device needs to be able to operate in both the client's home environment and in a variety of travel settings
- The sling needs to accommodate the client's semi-recumbent position



Completed Lift

Model Features

Highly Portable Design

The lift itself folds down to the size of a large duffle bag making it ideal for a variety of travel situations and methods.

Ease of Use

The integrated hydraulic lift system is easy to use and provides large amounts of force allowing people of all ages to operate the lift.

Custom Designed Semi Recumbent Slings

Our custom designed sling allows the user to remain in a comfortable semi recumbent position during transfer.

We would like to thank Dr David Rice, as well as our faculty panel of Dr Cedric Walker and Dr Sergey Shevkoplyas for teaching and support during this project. We would also like to thank the Elaine Horne, Peter Stapor and Chris Rodell.

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