

Appendix I: Design Project Abstract

Product Description:

Complete Design and fabrication of a mechanism to lift and lower the weights in a leg press machine

Abstract:

A mechanism is desired to lift the weight for the participants in no longer than 5 seconds, then allow the participants to lower the weight slowly (they have 4 seconds) on their own. The equipment should be able to be disconnected from the leg press machine as well as not be anchored to a wall. The equipment should be able to move at least 1,500 lbs.

Deliverables:

The project design group will be expected to deliver a working prototype of lifting mechanism, validating their proposed solution that meets the following criteria:

Safety: Design shall not introduce or expose the operator to any hazards.

Ergonomics: Interaction with design solution shall not induce fatigue in excess of the current process.



Project Customer:

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