

Team deliverable 1 (due 2/20):

NOTE: FIRST TEAM AND INDIVIDUAL DELIVERABLE ARE SWAPPED FOR THIS PROJECT
Articulate the requirements of the desired apparatus. Include functional requirements, geometric requirements, and cost constraints. Include quantitative constraints (e.g. range of forces and precision required in your force measurements). For this deliverable, you will need to work closely with your sponsor to understand their needs. Prioritize your list of requirements (e.g. identify which are non-negotiable, which are “would be nice to have,” and which are in between).

For this and all other team technical deliverables, you should turn in only one assignment for the whole team.

Functional Requirements

- Adaptability of the glute-ham machine for the range of exercises it is currently used for
 - Roman chairs
 - Hip extensions
 - Supports the hip/adjust femur
- Data collection capability of the nordbord
 - Force production
 - Asymmetry
- Assisted eccentric capability of reverse leg curl

Geometric Requirements

- Portability
- Modular piece would have to be compatible with existing machine

Quantitative Constraints

- Fidelity of data collection
- Max force limits
- Point of failure
- Adjustability max and mins

Prioritization

1. Data collection
2. Maintain versatility of glute-ham machine
3. Reverse leg curls
4. Portability