

Physical Function Testing Apparatus for Monkeys

Client: Dr. Ricki Colman

Advisor: Dr. Elizabeth Meyerand

Team: Benjamin Ratliff bratliff@wisc.edu (Team Leader)

Benjamin Myers bmyers4@wisc.edu (BWIG and BPAG)

Eli Stanek estanek@wisc.edu (Communicator and BSAC)

Date: January 19 to January 26, 2017

Problem Statement

We are looking to have equipment designed/developed that will allow us to test physical function, specifically muscle strength in macaque monkeys. For over 25 years we have been studying the effects of diet on aging in rhesus monkeys. We have learned that like humans, rhesus monkeys lose muscle mass with advancing age. We have shown that long-term intake of a reduced calorie diet can delay this decrease in muscle mass. While we have the ability to measure muscle mass, we are not currently able to measure muscle function or strength, our true outcome variable of interest. We can often use equipment that has been designed for humans with our monkeys. In this case, we are concerned that the muscle strength testing equipment that is commercially available requires the patient to willingly perform at their maximum level. Ideally we would have equipment that would entice the monkeys to perform at their maximum and allow us to determine muscle strength for both hind limbs and fore limbs separately.

Last Week's Goals

- Contact client and set a meeting time to go over the plan for this semester
- Purchase and create team online notebook
- Create website with project overview, team picture, and team roles

Summary of Team Role Accomplishments

- Leader, Ben R. – Purchased and set up online team notebook
- Communicator, Eli – Contact client
- BWIG, Ben M. – Created website with all current information

Summary of Design Accomplishments

- No design progress has been made yet, must speak with client first

Activities

Date	Person(s)	Task	Time (hrs)	Weekly Total	Semester Total
1.25.2017	Ben R.	Created LabArchives team notebook	0.5	0.5	0.5
1.25.2017	Eli	Contacted client to schedule meeting	0.5	0.5	0.5
1.25.2017	Ben M.	Created Website	0.5	0.5	0.5

Statement of Team Goals

- Begin brainstorming design ideas to improve design from last semester
- Speak with client to go over what new concepts she would like to integrate
- Update Literature Review and consider beginning to purchase some supplies to begin second prototype

Individual Goals

- Ben Ratliff: Write progress report
- Ben Myers: post progress report to site
- Eli Stanek: attend BSAC meeting and continue contacting client

Difficulties

- Have not spoken with client yet

Project Schedule

- We have to talk to our client first before we make our project schedule

Expense

Date:	Item:	Cost:	Comments:
9/9/2016	LabArchives Team Notebook	\$10.00	One time purchase for team

Total Cost: \$10.00