

Project #26

Development of a Device for Neurochemical Sample Collection from Freely Moving Monkeys

Week 10 –November 14 to November 20, 2008

Team Members:

Paul Schildgen – Team Leader
Lauren Eichaker – BSAC
Cole Drifka – BWIG
Angwei Law – Communicator

Client:

Ei Terasawa
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Advisor:

John G. Webster
Professor Emeritus, Dept. of Biomedical Engineering
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Problem Statement:

To improve on the device created last semester that protects the microdialysis apparatus used during cranial experiments on non-human primates. This involves making the device lighter, more secure around the monkey's head, and better able to cushion the microdrive unit.

Summary of Accomplishment:

On Thursday (11/13/08) we met as a group with our advisor and discussed our projects progress. On Friday (11/4/08) we met as a group and began constructing our poster. Later we met with our client and observed the testing of our prototype on a monkey.

Statement of Team Goals:

We will be meeting as a group this Thursday (11/20/08) and will continue working on our poster presentation. On Friday (11/21/08) we will be in class to attend the required lecture and will meet with our advisor afterwards. We will be researching alternative materials and methods of creating a counterweight system and comparing prices, weights, and strengths of the alternative materials. This is to eliminate the researching aspect of this project for future work.

Difficulties:

None at this point.

Activities:

Paul Schildgen	Worked on progress report, notebook and brainstormed counter weight ideas.	2.5 hours
Angwei Law	Communications, researched new materials, and evaluated live testing observations	3 hours
Lauren Eichaker	Tried to find a Titanium supplier and also considered the type of modifications that we might need to make to the straps as described by the veterinarians during the experiment.	2 hours
Cole Drifka	Brainstormed alternative strap designs and researched alternative shell materials.	2 hours
Team	Met outside of class with our advisor and discussed our progress. Also, met with our client during class to observe the testing on a monkey.	3.5 hours

Project Timeline:

	September				October					November				December		
Tasks	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	
Project research	█															
PDS	█															
Brainstorming	█															
Prototype design					█					█						
Prototype building								█				█				
Ordering								█				█				
Expected shipping								█				█				
Device manufacturing								█				█				
Testing										█			█			
Re-designing													█		█	
Re-testing													█		█	
Meeting with client		█		█		█		█		█			█		█	
Group meeting	█															
Presentation							█								█	
Progress report	█															
Website	█															

Expenses:

1lb of RTV Silicone – 39.08 U.S. Dollars

Riveting Material – 9.77 U.S. Dollars