Calibrated Eye Dropper

Week 3: February 6 - February 12, 2009

Team: Sarah Switalski – Co-Leader
Michelle Tutkowski – Co-Leader
Brooke Sampone – Communicator
Jim Mott – BWIG
Eamon Bernardoni – BSAC

Client : B'Ann Gabelt
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Problem Statement:

A lab in the Department of Ophthalmology and Visual Sciences needs a device to accurately deliver 5µL drops of experimental drugs into the cornea of the eye for glaucoma therapy testing in animals. Currently, the client uses standard micropipettes which deliver exactly 5µL drops, but this method poses a danger to the safety of animal and a chance of inaccurate placement of the drop. The objective is to optimize accuracy, efficiency, and animal safety in optical drug delivery.

Previous Week's Goals:

The team needs to further research calibrated eye droppers and mechanical workings of current market devices. In addition, the team needs to continue modifying and discussing brainstorming ideas. The team needs to complete the Product Design Specifications (PDS).

Week 3 Activities:

Individual	Activity	Time (hours)	Weekly Total (hours)	Overall Total (hours)
Michelle	Independent	1.50	1.50	11.00
	Team Meeting	0.00		
	Client Meeting	0.00		
Eamon	Independent Work	2.00	3.00	13.50
	Team Meeting	1.00		
	Client Meeting	0.00		
Sarah	Independent Work	1.25	2.25	12.50
	Team Meeting	1.00		
	Client Meeting	0.00		
Brooke	Independent Work	2.50	3.50	14.25
	Team Meeting	1.00		
	Client Meeting	0.00		
Jim	Independent Work	2.50	3.50	15.25
	Team Meeting	1.00		
	Client Meeting	0.00		

Summary of Accomplishments:

The team continued researching the dynamics of micropipettes as well as available products. The team asked the client questions regarding the use and longevity of the prototype and the relative importance of preliminary design matrix criteria. With this information, the team began discussing pros and cons of brainstorming ideas and completed the Product Design Specifications (PDS).

Next Week's Goals:

Individual Goals:

- Brooke: Research, brainstorm, narrow down design ideas, keep in contact with client
- Eamon: Research, brainstorm, narrow down design ideas, BSAC
- Jim: Research, brainstorm, narrow down design ideas, maintain website
- Michelle: Research, brainstorm, narrow down design ideas, send out progress report
- Sarah: Research, brainstorm, narrow down design ideas

Team Goals:

- Brainstorm, narrow down preliminary design alternatives
- Discuss pros and cons of design ideas
- Disassemble micropipette and devise calibration procedure

Difficulties:

There are no difficulties at this time.

Project Schedule:

Tasks	Jan		Feb				Mar					Apr				May		
	23	29	6	13	20	27	6	11	13	20	27	3	10	17	24	1	6	8
Research	X	X	X															
Brainstorming	X	X	X															
PDS			X															
Prototype Design																		
Prototype Fabrication																		
Testing																		
Meeting with Client																		
Team Meeting																		
Presentation																		
Written Reports																		
Peer/Self Evaluations																		

Expenses:

There are no expenses at this time.