

Calibrated Eye Dropper

Week 3: February 13 - February 19, 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 5 μ L 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 5 μ L 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:

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

Week 4 Activities:

Individual	Activity	Time (hours)	Weekly Total (hours)	Overall Total (hours)
Michelle	Independent	0.50	4.00	15.00
	Team Meeting	3.00		
	Client Meeting	0.50		
Eamon	Independent Work	0.75	4.25	17.75
	Team Meeting	3.00		
	Client Meeting	0.50		
Sarah	Independent Work	1.00	4.50	17.00
	Team Meeting	3.00		
	Client Meeting	0.50		
Brooke	Independent Work	0.50	4.00	18.25
	Team Meeting	3.00		
	Client Meeting	0.50		
Jim	Independent Work	1.00	4.50	19.75
	Team Meeting	3.00		
	Client Meeting	0.50		

Summary of Accomplishments:

The team continued to research and brainstorm ideas. A micropipette was disassembled to further the team's understanding of the interior workings of micropipettes. During a productive meeting with the client, the team presented multiple potential solutions and received feedback from the client to help narrow the ideas.

Next Week's Goals:

Individual Goals:

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

Team Goals:

- Choose three or four design options for further consideration
- Devise calibration procedure
- Continue improving the chosen designs

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	X														
Brainstorming	X	X	X	X														
PDS			X															
Prototype Design				X														
Prototype Fabrication																		
Testing																		
Meeting with Client		X		X														
Team Meeting	X	X	X	X														
Presentation																		
Written Reports																		
Peer/Self Evaluations																		

Expenses:

There are no expenses at this time.