

Calibrated Eye Dropper

Week 6: February 27 – March 5, 2009

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

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Problem Statement:

A lab in the Department of Ophthalmology and Visual Sciences needs a device to accurately and efficiently 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 is time consuming, poses a danger to the safety of the animal and makes drop placement difficult. The objective is to optimize accuracy, efficiency, and animal safety in optical drug delivery.

Previous Week's Goals:

- Finalize dimensions and drawings of design alternatives
- Research micropipette materials, spare parts
- Prepare and practice midsemester presentation
- Write midsemester report

Week 6 Activities:

Individual	Activity	Time (hours)	Weekly Total (hours)	Overall Total (hours)
Michelle	Independent	4.25	8.25	25.50
	Team Meeting	4.25		
	Client Meeting	0		
Eamon	Independent Work	11.00	15.25	35.75
	Team Meeting	4.25		
	Client Meeting	0		
Sarah	Independent Work	3.50	7.72	27.50
	Team Meeting	4.25		
	Client Meeting	0		
Brooke	Independent Work	2.50	6.75	28.75
	Team Meeting	4.25		
	Client Meeting	0		
Jim	Independent Work	8.00	12.25	35.75
	Team Meeting	4.25		
	Client Meeting	0		

Summary of Accomplishments:

The team finalized drawings for design alternatives as well as the final design. This process was aided by observations made of Professor Kreeger's micropipette. Also, the midsemester presentation was created and practiced at a team meeting during the week. The team began writing the midsemester paper. Two micropipettes were donated to the team from VWR International.

Next Week's Goals:**Individual Goals:**

- Brooke: Prepare midsemester paper, notebook, and evaluations; research commercially available micropipette parts; keep in contact with client
- Eamon: Prepare midsemester paper, notebook, and evaluations; research commercially available micropipette parts; BSAC
- Jim: Prepare midsemester paper, notebook, and evaluations; research commercially available micropipette parts; maintain website

- Michelle: Prepare midsemester paper, notebook, and evaluations; research commercially available micropipette parts
- Sarah: Prepare midsemester paper, notebook, and evaluations; send out progress report

Team Goals:

- Prepare midsemester paper
- Research commercially available micropipette parts

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

Expenses:

There are no expenses at this time.