

## **Olfactory Conditioning Apparatus for Fruit Flies**

**Week 2** – February 19 to February 25, 2009

**Team Members:** Rob Bjerregaard – Team Leader  
Graham Bousley – Communicator  
Chuck Donaldson – BSAC  
Scott Carpenter – BWIG

**Client:** Jerry Yin  
Phone: (608) 262-5014  
Email: jcyin@wisc.edu

**Advisor:** Paul Thompson  
Phone: (608) 628-8816  
Email: pdthompson@wisc.edu

### **Problem Statement:**

The aim of this project is to improve or completely re-design a device that is currently used to test fruit flies' olfactory sense, memory, and ability to learn. The current device is producing some inaccurate results because the fruit flies experience changes in air pressure and airflow. Airflow and pressure change need to be kept at a minimum while odors are introduced and cleared from the device.

### **Restatement of Last Week's Goals:**

The team's goals from last week were to come up with multiple ways to improve the current design and to design a way to measure pressure in the testing tubes in real time.

### **Summary of Accomplishments:**

- The team and client have come to the conclusion that current design should be improved first.
- The team met with Eric, and he presented a number of new ideas and goals.

### **Team Goals:**

- Come up with multiple ways to improve current design
- Design a way to measure pressure in the testing tubes in real time

**Activities:**

Rob	2.19.2009	Meeting with Client	1hr 30 min	2 hr 45 min
	2.22.2009	Questions for Eric and Product Research	1hr 15 min	
Graham	2.19.2009	Meeting with Client	1hr 30 min	3 hr 30 min
	2.25.2009	Meeting with Jerry and Eric	2hr	
Chuck	2.19.2009	Meeting with Client	1hr 30 min	3 hr 30 min
	2.25.2009	Meeting with Jerry and Eric	2hr	
Scott	2.19.2009	Meeting with Client	1hr 30 min	3 hr 30 min
	2.25.2009	Meeting with Jerry and Eric	2hr	

**Difficulties:**

Currently there are no major difficulties.

**Project Timeline:**

	February				March				April				
Tasks	4	11	18	25	4	11	18	25	1	8	15	22	29
Project research	█	█	█	█	█	█	█	█					
Brainstorming	█	█	█	█	█	█	█	█					
PDS		█	█	█	█	█	█	█					
Prototype design				█	█	█	█	█					
Prototype building						█	█	█	█				
Actual device design						█	█	█	█	█			
Ordering							█	█	█	█	█		
Expected shipping							█	█	█	█	█		
Device manufacturing										█	█	█	█
Testing											█	█	█
Re-designing											█	█	█
Re-testing												█	█
Presentation					█								█
Progress report	█	█	█	█	█	█	█	█	█	█	█	█	█
Website	█	█	█	█	█	█	█	█	█	█	█	█	█

**Expenses:**

Currently there are no expenses.