

Title: System for pH Measurement in Incubators

Team Members: Mike Swift, Steve Huffacker, Sara Alford, Ryan Porter, Byoung Choe, Kristi Hinner, Laura Wing, Gabriel Martinez-Diaz, Carla Maas

Team leader: Mike Swift

Communications: Ryan Porter

BSAC Rep: Gabriel Martinez-Diaz

BWIG Rep: Sara Alford

Client: Dr. Theresa Duello
Associate Professor
Obstetrics and Gynecology
5240 Medical Sciences Center
tmduello@facstaff.wisc.edu

Date: Feb. 23 - Mar. 2

Problem Statement: To develop a device that can constantly monitor the pH levels of the bathing medium for bovine embryos inside an incubator. This device cannot alter the incubator in any way. It must also be able to accurately measure the pH within tenths of a pH level.

Restatement of Team Goals: This week we collaborated all of the potential design ideas and worked through the pros and cons of each design. We found the similarities and differences that could be incorporated together in the final design. We also broke into small groups that were assigned roles such as writing the report, making the slides, and preparing the report and slides for giving the presentation. The groups were:

Report: Laura Wing, Gabriel Martinez-Diaz, Carla Maas

Slides: Sara Alford, Ryan Porter, Byoung Choe

Presentation and Proofreading: Steve Huffacker, Kristi Hinner, Mike Swift

Summary of Accomplishments: The slides for the presentation were produced and sent to the presentation group for "postproduction." The midsemester report was also completed and sent to the presentation group. The presentation group will now go over the slides and the report making sure that they work together, and that all the information is included.

Statement of Team Goals: We went over the pros and cons of each independent design. We then used this data to produce the slides and report for the midsemester presentation.

Project Schedule:

Week Date Design Activities

- 1 1/31 Meet with client
- 2 2/2 - 2/9 Gather research
- 3 2/9 - 2/16 Gather more research and ask client questions
- 4 2/16 - 2/23 Come up with ideas for design and write outline
- 5 2/23 - 3/2 Complete the Report and Slides for the Presentation

Difficulties: not altering the incubator, not damaging the embryo or the bathing medium, not affecting the pH or temperature of the bathing medium while taking measurements

Activities: Collaborated ideas on the potential design ideas. Broke into groups to prepare for the midsemester presentation and report.

Time Spent on Project Outside of Class (this does not include time spent in class which is noted on Friday)

If there are hours I missed I will include them in next week's report.

This Week (in hours)

Mike 3.5 + ?, 2 for the outline not included last week, 1.5 for writing the progress report, plus time needed to prepare report and slides tomorrow for presentation...

Gabriel 4, preparing midsemester report

Sara 2, preparing slides for presentation

Steve 4.5 + ?, 3.5 for last week not included, one from this week, and time needed to prepare report and slides tomorrow for presentation...

Byoung

Ryan 6, 3.5 not mentioned from last week, 2.5 this week for preparing the slides

Kristi 2 + ?, 2 from last week not mentioned on the outline, plus hours to prepare slides and report tomorrow for presentation...

Laura 3.5, preparing report

Carla 3, writing of report

Total Hours

Mike 15

Ryan 12

Sara 9

Steve 12
Byoung 7
Gabriel 19
Kristi 7
Laura 17
Carla 9.25