

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
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Date: Feb. 16 - Feb. 23

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: We finally decided that we had enough research to go ahead and start brainstorming ideas for our design. We broke into teams of two or three to maximize different ideas and also be more efficient. These groups will then send their design ideas to Mike or Kristi and they are going to put together the outline for the report that summarizes all of the ideas.

Groups:

Steve and Ryan - Design

Byoung, Gabriel, Laura - Design

Carla, Sara - Design

Kristi, Mike - Outline

Summary of Accomplishments: Each group came up with one or two potential ideas for the final design. These will be summarized in the outline for the report.

Statement of Team Goals: Hopefully, we will come up with many viable options for designing our pH monitor. These ideas can then be built up throughout the rest of the semester and focused down to one idea.

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

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: Broke into two to three member groups to design different alternatives to our problem. These design alternatives will be summarized in the outline for next class.

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 1.5 + ?, typed up progress report, gathered information from group members, spending God knows how much time typing the outline on Thurs.....

Gabriel 3, Thinking about design alternative with group

Sara 3.5, 1.5 from last week not mentioned, 2 working on design alternative.

Steve

Byoung 4, 1 from last week not mentioned, 3 for working on design alternative

Ryan 2.5, from last week not mentioned

Kristi 2 + ?, 2 from last week not mentioned, my brave partner in the battle against the outline to be typed on thurs.

Laura 7.5, 4 from last week not mentioned, working on design alternative, typing up summary

Carla 3, working on design alternative

Total Hours

Mike 11.5

Ryan 6

Sara 7

Steve 7.5

Byoung 7

Gabriel 15
Kristi 5
Laura 13.5
Carla 6.25

This is what I have for design ideas so far...I told them they didn't need to get it to me until early thurs. because that's when we're typing the outline. This way they had more time to brainstorm.