

**EE/CprE/SE 492 WEEKLY REPORT 04**

**3/25 – 4/7**

**Group number: Team 25**

**Project title: Con-Sea-Erge**

**Client: Cara Fila**

**Advisor: Dr. Fila**

**Team Members/Role:**

**Devin Milligan - Firmware**

**Ethan Peterson - Firmware**

**Ryan Hickok - Firmware**

**Drake Dodson - Frontend/Backend**

**Hunter Northern - Enclosure Design**

**Josh Van Drie - Frontend**

**Brian Tran - Frontend**

- **Weekly Summary** (Short summary about what the group did for the week. This should be about a paragraph in length. These are just a few questions to help you get started. What was the overall objective for the week? In general, what tasks were completed? Were there any changes made to the project?)
- **Past week accomplishments** (Please describe/summarize as to what was done, by whom, when and, collectively as a group. This should be about a paragraph or two in length. Bulleted points are acceptable as well. Please keep only your technical details

*related to your project. Figures, schematics, flow diagrams, pseudocode, and project related results are acceptable, but please ensure that they are legible (clear enough to read) and to provide an explanation. If researching a topic, please add a few details about what was learned and how it is relevant to the project. If two or more people worked on a single task, be sure to distinguish how each member contributed to the task. Specific details relating to the assistance provided to other members may be included here. **Do not include classwork, such as individual reflection assignments, and group meetings as part of your duties.***

- Ryan
  - Over the past two weeks, I spent most of my time working through various issues with the firmware code. I fixed an issue in connecting to my home wifi for testing purposes, and I also spent time troubleshooting and fixing an issue that involved incorrect reading and displaying of pH sensor values with Devin.
- Devin
  - I assisted in the testing and troubleshooting of the new circuit board, with Ryan. As well, I modeled different variations of the enclosures to ensure that we will have one that can 3D print easily. I spent time on printing in PLA, a couple variations of the enclosures for testing this week.
- Ethan
  - These past two weeks I have planned out the format for backend data for the scheduling functionality with Drake and Ryan. I have been working on implementing that functionality once we finished up.
- Brian
  - Previously, I worked on some minor changes such as fixing some grammar mistakes and updating some styles. Spent some time updating error messages and debugging the error messages as they weren't showing up sometimes. Did more attempts to integrate image uploading as well as making notes on image storage for each tank.
- Drake
  - Met with the firmware team in order to get the schedule functionality figured out. I also worked on implementing the backend features for the feeding schedule.
- Josh
  - Added functionality to share tanks between users. Redesigned multiple components for improved and modern look. Fixed some issues for using the app on different sizes.
- Hunter
  - Redesigned the top holder for food and how it is dispensed into the tank. Now added a hopper to hold the food and a singular disk so that we don't need to spin as accurately.

○ **Pending issues**

- Trying to get the App on the clients phones

- **Individual contributions** (Creating this section is optional, but it is **Required to include the “Hours Worked for the Week” and their “Total Cumulative Hours” for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that individual contributions support your claim to the weekly hours. Be honest with the reports.**)

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b> (Quick list of contributions. This should be short.)	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Devin	Assisting in the troubleshooting of the circuit board. 3D modeling different variations of the enclosure. 3D printing a few different enclosure variations for testing and troubleshooting.	12	30
Brian	Code styling, error message updates/fixes, worked on image uploading, demoed some frontend progress with Drake and Josh	8	24
Ethan	Meeting with Drake and Ryan to finalize the format of the data in the backend. Worked on implementing such changes on firmware side of things	8	25.5
Hunter	- Advanced the enclosure design	8	26
Ryan	<ul style="list-style-type: none"> <li>- Met with Drake and Ethan to align the frontend and firmware sides of the scheduling functionality and discuss future work</li> <li>- Worked to troubleshoot an issue involving WiFi connection for testing purposes</li> <li>- Tested, calibrated, and fixed an issue with the reading of pH values on the new board</li> </ul>	7	25
Drake	Worked with Ryan and Ethan. Continued working on implementing backend schedule storage.	8	23
Josh	-Created ability to share tanks between	15	45

	users -Redesigned components to look more modern -Components now pull all their data from database -Added additional component to display last feed time		
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○ **Plans for the upcoming week** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)?, Who will contribute to it? Be as concise as possible.)*

- Ryan
  - I will work to modularize the NTP methods in a similar fashion to the existing pH and temperature headers, and I will also spend time reconfiguring the pH header files in order to accommodate for correct reading and displaying of pH values from the sensor. With any spare time, I will connect with Ethan to help out with motor functionality.
- Devin
  - I will be continuing 3D printing of enclosures to ensure that our device will function properly. Then, I will use the motor and electronics in our project to assembly a functioning prototype to dispense food, using the firmware from the firmware team.
- Ethan:
  - I will be finishing up the scheduling functionality for our demo with our clients in our next meeting. This should allow us to have enough time to adequately test the functionality of our full system.
- Brian:
  - I will continue to work on Image uploading for each tank and establish an image database on our current setup. Will work with others to finalize the product.
- Drake
  - I hope to finalize the storage of the feeding schedule and I will start looking into options to get the application onto the clients devices. I might also start working on some of the other remaining features that are leftover to be implemented.
- Hunter
  - Finish up the part that clips onto the tank and the chute to mesh with our new top design.
- Josh
  - Work with backend to figure out connecting physical device to application.

Finish application styling and hopefully complete the app.

○ **Summary of weekly advisor meeting** *(If applicable/optional)*

- In our advisor meeting this week we updated our clients with the new progress on the product. We talked about the updates to the frontend application and the ability to continuously update with live temperature and pH information from the hardware device. On the firmware side we spoke to the updated functionality in the timing of feedings, as well the functionality with the application. We updated the clients on the newly designed enclosures and was able to show them in person one of the designs to be tested on the tank. We stated that our next bi-weekly meeting will be an in person demonstration of the product.

**Grading criteria**

Each weekly report is worth 10 points. Scores will be awarded as follows:

- **8 – 10:** Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- **6 – 8:** There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- **< 6:** Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.

Each weekly report should be unique in that they have a unique set of supporting details for your contributions. So please do not just copy your reports from the previous week. In addition, please avoid any personal pronouns (he, she, I, you). Try to keep your reports as neat as possible.