

EE/CprE/SE 492 WEEKLY REPORT 01

2/19 – 3/4

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

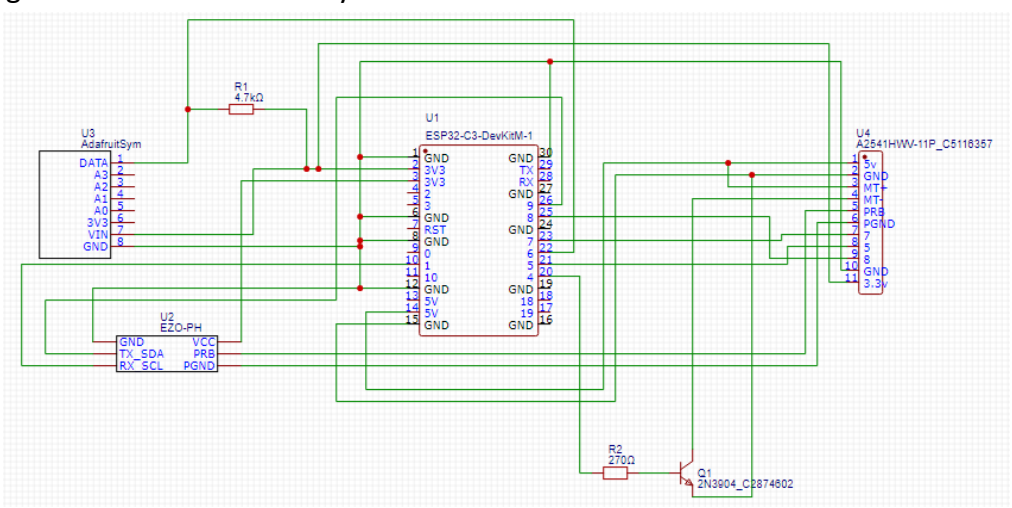
Josh Van Drie - Frontend

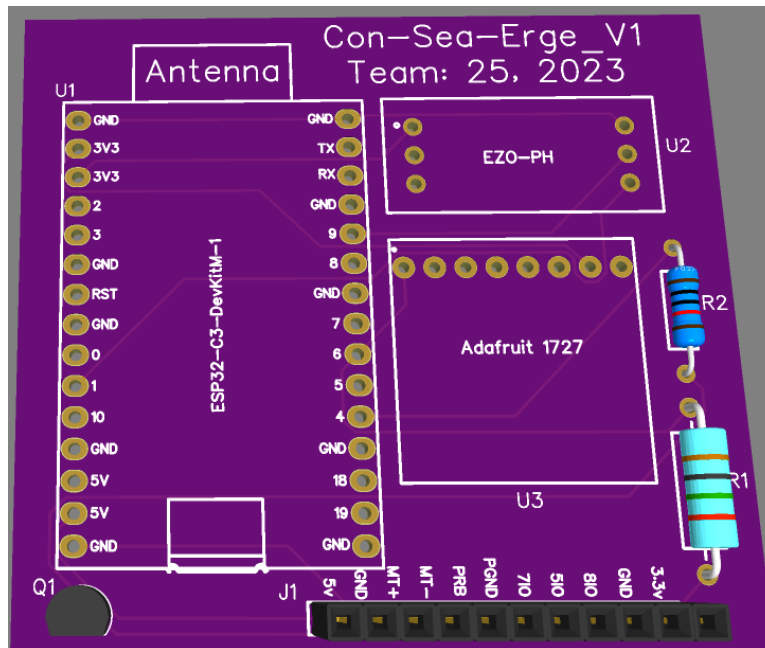
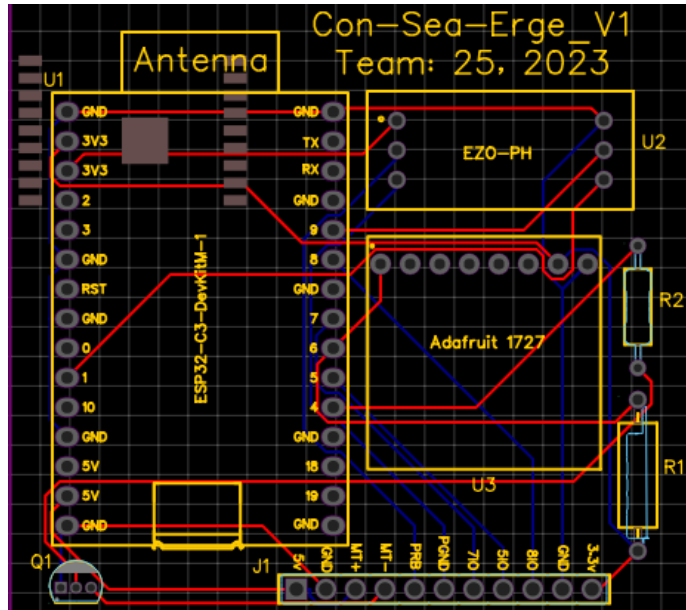
Brian Tran - Frontend

- **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?)
 - This week, we were able to accomplish a couple of our goals for this semester. Firstly, we got a full design completed for our circuit board, and we are in the process of getting that ordered for our prototypes. In addition, we got our motors ordered and distributed among members of our team. We also made progress on the firmware side of things with the scheduling functionality as well as the implementation of the motor into our design. Lastly, on the frontend side, we continued to improve the signup page and implemented functionality for individual user accounts.

○ **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
 - Last week, I continued familiarizing myself with the firmware code and began to work on modularizing it. In addition, we received our motors last week, so I was able to write the code to get the motor moving preliminarily. I also did some research into what else will be needed in order for the motor to move when we want it to.
- Devin
 - Last week I worked on creating the circuit board layout design, as well as the circuit schematic for the board as well. This board is planned for use in the final design of the product. It includes connections for all the functionalities of the current functionality of the prototype, but also includes external IO ports to the main MCU, allowing for additional sensors to be added later to the design if we feel it is necessary.





- Ethan
 - Upon receiving the motor for our design, I worked on getting that implemented on the firmware side of things with the help from Devin and Ryan. Currently working on getting the schedule fully implemented with the motor acting upon said schedule.
- Brian
 - Continued doing testing and research on implementing photo library features.
- Drake
 - Users information is now tied to specific accounts. This allows for different users to be able to have access to different things. I also made some improvements to the way the signup screen was handled and made it actually navigate to the home page.
- Josh
 - Worked on front end back end connection and scheduler component.

○ **Pending issues**

- None for the past two weeks

- **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.**)

<u>NAME</u>	<u>Individual Contributions</u> (Quick list of contributions. This should be short.)	<u>Hours this week</u>	<u>HOURS cumulative</u>
Devin	<ul style="list-style-type: none"> - Learning circuit board layout software - Creating Schematic for board design - Creating layout for board design - Researching best places to order PCBa's from 	6	12
Brian	<ul style="list-style-type: none"> - Research into implementing photo library into application 	2	8
Ethan	<ul style="list-style-type: none"> - Implemented code to support the motor - Working on getting the scheduling fully figured out. 	5	6.5
Hunter	<ul style="list-style-type: none"> ● Worked on printing another prototype ● Fixed measurements on a prototype 	5	12
Ryan	<ul style="list-style-type: none"> - Familiarized myself with the rest of the firmware code - Wrote code to get the motor to move initially - Researched what else will be needed for the motor to move when we want it to 	6	12
Drake	<ul style="list-style-type: none"> - Configured Backend database - Improved signup functionality - Added tank information retrieval 	4	9
Josh	<ul style="list-style-type: none"> - Worked on front and backend connection 	6	18

	- Started component for weekly schedules		
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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 wrap up the modularization of the existing firmware code and move into the next phase of working on the motor code. In addition, I will start to work with Ethan on the scheduling functionality and begin collaboration with the frontend team in an effort to get the scheduling to work with the motor.
- Devin
 - I will work through verifying every aspect of the designed circuit board to confirm that the layout is correct and the functionality will work for our needs, before ordering. Then I will research different sensors that we may need for additional functionality for the device to be sure it functions correctly, such as a sensor for tracking rotations of the motor.
- Ethan:
 - I will work on getting the schedule fully implemented with the data getting pulled from the frontend to backend to firmware. This includes meeting with the frontend and backend team to decide on a strict format we will have our date and time in our database.
- Brian:
 - I will coordinate with other front-end members to collaborate and to go over some decisions. In addition, will need to speed up progress in the front-end space to provide more deliverables to gain feedback as soon as possible.
- Drake
 - I plan to continue working on data transfer between the backend and frontend and further flesh out how users will be able to interact with the app to create new tanks and trigger feedings. I will also need to work with the people on the firmware side to see how they are handling the information needed to schedule a feeding of a tank.
- Hunter
 - I plan to continue working on the enclosure specifications and to print more prototypes of the housing component
- Josh
 - I plan to finish the weekly scheduler component and complete the frontend backed connection to finalize getting real time data to the frontend

app.

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

- N/A

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.