Fish Tank Monitor Week 7 Updates

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Dear Project Partner,

Since our previous update, our group has continued work on the Fish Tank Monitor project in both technical and team-related aspects. From the technical side, we have developed an initial user interface design. The design is made up of approximately 30 pages which each serve an individual purpose in the Fish Tank Monitor. To test this design's flow, we have begun testing the interface anonymously through other students in our Senior Capstone class and people who are fish owners. These results will help us to make informed improvements to the user interface.

We have also begun selecting more of the components needed for our project. We have selected a [display module](https://www.dfrobot.com/product-2101.html) for the chip that we intend to use, the ESP32. The display module makes use of a "paper screen" which only updates upon user request. This will save energy in the system and may help to limit the programming needed for the user interface as pages will remain open indefinitely if no change occurs.

Another component that we have selected is the [color sensor](https://dfrobot.com/product-2132.html). The sensor we have selected will be used to read the test results of water testing strips. The sensor will prevent us from having to implement several sensors to measure water parameters and instead will allow us to use a single sensor for multiple parameters. The use of water testing strips, which are readily available at any major pet supply store, allows our product to be less expensive than it would be if we were to use several sensors. This will help us to expand our customer base and be more inclusive.

Our team has created a draft of our design impact assessment where we researched the potential impacts that our product could have. These impacts fell into three major categories: public health, safety, and welfare impacts, cultural and social impacts, and environmental impacts. In this document we also explored the possible economic factors that we must consider moving forward. This document will allow us to minimize our product's negative impacts in order to prioritize positive impacts.

Lastly, we have developed an agenda to keep our meetings efficient. The agenda has six major categories: recap, upcoming assignments, upcoming project tasks, timeline review, open discussion, and confirming the next meeting time. In our recap, each member of the group is given time to explain what they've completed and been working on for our project since the previous meeting. This allows us to start on the same page. The upcoming assignments section is dedicated to checking the class calendar and ensuring that all team members know when any assignments are due. During the upcoming project tasks section of the meeting, we review tasks that should be complete, extend any if necessary, and create new tasks. These tasks are always written in both our tasks file in the team Google Drive as well as in the meeting notes. Next we review the timeline that we created at the beginning of the term to see where we should be progressing to. After this we have time for open discussion about our project, class, and any other topics the team deems necessary. Finally, we set the date and time of our next meeting. We try to ensure that our meetings are about one week apart. If that does not work out for our schedules we schedule the meetings to be earlier rather than later.