
EE/CprE/SE 491 WEEKLY REPORT 2

September 27, 2019 – October 4, 2019

Group number: 05

Project title: Vision Impaired Swim Aid

Advisor: Leland Harker

**Team Members/Role: Carson Kneip, Paden Uphold, Nathan Mortenson, Timothy Steward,
Conor Albinger, and Jake Sieverding**

○ **Weekly Summary**

We obtained our microcontroller, and started to set up some testing code. Then we went to the pool to see if we could get any results on the Sharp IR and the PING sensor from the ETG. We determined that the sensors don't have enough range, and we need to start establishing communication.

○ **Past week accomplishments**

- Carson Kneip: Went to the pool and tested out ping sensor and IR sensors. Determined that they will not work and we need to do more research.
- Paden Uphold: Went to the pool and tested out ping sensor and IR sensors along with design document
- Nathan Mortenson:
- Timothy Steward: Got software to get sensor tested, Went to the pool to test the sensors, Researched alternative sensor options
- Conor Albinger: Researched commercially available communication devices
- Jake Sieverding: Went to the pool to test ping and IR sensors. Researched more powerful IR sensors than what we tested.

○ **Individual contributions**

| <u>NAME</u> | <u>Individual Contributions</u> | <u>Hours this week</u> | <u>HOURS cumulative</u> |
|--------------------|---|-------------------------------|--------------------------------|
| Carson Kneip | Researched new sensors that we needed to order. | 4 | 10 |
| Paden Uphold | Testing first IR and Sonar, new sonar and IR research, Design document | 4 | 10 |
| Nathan Mortenson | Looking into SONAR sensors and waterproofing | 4 | 8 |
| Timothy Steward | Got software to test sensors, on arduino working, sensor research | 7.5 | 18 |
| Conor Albinger | Researched transmitters/receivers and ways to integrate with Arduino controller | 4 | 10 |
| Jake Sieverding | Testing IR sensor at pool. Researched IR and sonar sensors. | 5 | 11 |

○ **Comments and extended discussion**

Main goal for now is to figure out how to track the swimmer. This is the first step of our project, and If we can't ge this part to work, then nothing will work. We still need to establish some norms for a visually impaired users. Lastly, we have ordered more devices, and we will do more testing when they arrive.

○ **Plans for the upcoming week**

- Carson Kneip: Wait for new sensors to arrive, and do more testing.
- Paden Uphold:Wait for sensors and do testing when sensors get here
- Nathan Mortenson:
- Timothy Steward: Write software to get the new sensors working
- Conor Albinger: Help test sensors and order communication devices
- Jake Sieverding: Help test new sensors when they arrive.

Summary of weekly advisor meeting

No advisor meeting. Waiting on sensors so we can test so no new information