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## **EE/CprE/SE 491 WEEKLY REPORT 8**

**Jan. 31, 2020 – Feb 13, 2020**

**Group number: 05**

**Project title: Vision Impaired Swim Aid**

**Client &/Advisor: Leland Harker**

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

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### ○ **Weekly Summary**

Received new parts and went to the pool to test. At the test, we got the BlueRobotics sensor to work and received data that made sense. We were able to detect a person when they were standing up, but when they went to a swimming position, we were not able to detect them. We tried to move the sensor to several positions and change the settings, but none of these things resulted in us being able to detect the swimmer.

### ○ **Past week accomplishments**

- Carson Kneip: Soldered the new FM Transmitter hookups together, and the two radio modules.
- Paden Uphold: Tested sonar at pool but seems to not detect swimmer all the time
- Nathan Mortenson: Tested sensor and looked into ir
- Timothy Steward: I went to the pool test and made a recording of the data. I started playing with the digital wireless transmitters, but need to get a breadboard.
- Conor Albinger: Tested sonar at pool with new software. Started considering other sensor options with failed sonar results.
- Jake Sieverding: Tested sonar at pool and discovered it won't sense the surface swimmer.

### ○ **Pending issues**

The sensor we tested did not work. We need to find an alternative.

- Carson Kneip: Getting FM transmitter to work.
- Paden Uphold: Sensor wont detected swimmer when in swimming not sure if its due to the sensor not detecting as much of the swimmer when they are parallel to surface or because the swimmer is moving too fast.
- Nathan Mortenson: Need to look into IR
- Timothy Steward: I need to get a breadboard and wires to hook up the digital wireless transmitters.
- Conor Albinger: With the sonar test results not being sufficient, we need to consider and research other sensor options.

- Jake Sieverding: Need to find a new sensor.

○ **Individual contributions**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Carson Kneip	Picked up new parts and got them ready to test.	3	55
Paden Uphold	Test sonar at pool	3	45
Nathan Mortenson	Test sensor and look into alternatives	3	48
Timothy Steward	Pool test and initial digital wireless transmitter testing.	2.5	76
Conor Albinger	Tested sonar at pool with new software.	3	42
Jake Sieverding	Tested sonar at pool.	2	41

○ **Plans for the upcoming week**

- Carson Kneip: Look for a different sensor.
- Paden Uphold: Look at different sensor or possibilities of using an old sensor
- Nathan Mortenson: Look into IR and other sensor types
- Timothy Steward: Get two arduinos to communicate wirelessly.
- Conor Albinger: Research different sensor options.
- Jake Sieverding: Look for a different sensor.

**Summary of weekly advisor meeting**

Discussed the possibilities of new sensors to detect our swimmer. Need to keep pushing more on the communication area.