
EE/CprE/SE 491 WEEKLY REPORT 12

April 3, 2020 – April 16, 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***

○ **Weekly Summary**

We worked on communication with the Arduino and generating a tone to transmit. We were successfully able to use computer vision to find the bounds of the lane and distances of points in the image.

○ **Pending issues**

- Carson Kneip: Determining exact input to Arduino from Raspberry Pi.
- Paden Uphold: Formatting poster without being able to see how it looks on the actual poster
- Nathan Mortenson: Worked on developing poster and preparing for presentation
- Timothy Steward: Need to do more learning about computer vision and try different things.
- Conor Albinger: Need to develop code for integrating tone creation and transmission with our current working transmitter code.
- Jake Sieverding: Issues with numby being read as an import in python.

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Carson Kneip	Finished up radio module server and client codes. Waiting to see exactly what type of input I will be receiving.	7	89
Paden Uphold	Looked at poster examples got it started with information needed	6	67
Nathan Mortenson	Researched the fm transmitter and how and auxiliary sound signal is sent	3	65
Timothy Steward	Worked on a program that is able to successfully identify the lane boundaries and distances of objects in the frame.	12	117
Conor Albinger	Developed logic for tone test using a digital input pin.	6	67
Jake Sieverding	Experimenting with CV and learning numpy.	6	67

○ **Plans for the upcoming week**

- Carson Kneip: Finish up code with the radio modules.
- Paden Uphold: Finish poster and start rest of final documentation
- Nathan Mortenson: Finish poster and design doc
- Timothy Steward: Identify the swimmer with computer vision and use what I did this week to identify their location.
- Conor Albinger: Integrate arduino tone test with transmitter code.
- Jake Sieverding: Continue experimenting with CV and prepare for final presentation.

Summary of weekly advisor meeting

Didn't have a meeting with the advisor.