

EE/CprE/SE 491 WEEKLY REPORT 10 04/10/2018 – 04/16/2018

Group number: 18

Project title: *Deep Learning with Radar for Object Recognition and Tracking*

Client &/Advisor: Michael Olson (Danfoss) and Dr. Wang

Team Members/Role:

Tucker Creger - Project Manager

Eric Bishop - Software Developer

Kellen O'Connor - Deep Learning Architect

Clayton White - Hardware Design Engineer

Mitch Hagar - Radar System Lead

Nihaal Sitaraman - Hardware Developer

o Weekly Summary

This week we finally got the last of all our parts and have began actual technical work. Our advisor from Minnesota and a Danfoss employee from the Ames facility provided us with our camera system. The CAN controller needs to be soldered since we have got the chip and also the PCB.

o Past week accomplishments

- Tucker ordered 6 CAN transceivers for prototyping and testing.
- Kellen created a flowchart describing the functionality of our final program
- Created diagram outlining the deep learning model, and used it for our presentation
- Tucker received the CAN transceiver and Nihaal began solder work on it.

o Pending issues

We still need a camera system but we will get that from our client during dead week. We will also need to confirm our test plan with the client, and also we need to prep for our faculty presentation.

o Individual contributions

Name	Accomplishments	Hours This Week	Hours Cumulative
Tucker Creger	This week I worked on tracking down suppliers	7.5	100

	<p>for Deutsch Connectors. I also continued compiling that into a bill of material to order those parts through ETG. I also started work on revising our Project Plan. I also ordered 6 CAN transceivers through ETG.</p>		
Eric Bishop	<p>Worked on the final project plan, and weekly reports. Also looked into creating a better version of the website and changing over to a different layout so we can stand out more compared to the other website.</p>	6	65
Kellen O'Connor	<p>I began working on our final project plan revision. With the Jetson in a working state, we may begin interfacing with the camera and radar systems. I created a flowchart describing the functionality of our final program.</p>	8	83.5
Clayton White	<p>Acquired a PCB mount so that we can prototype the whole CAN system. Prepared presentation for our client.</p>	10	63
Mitch Hagar	<p>This week I continued to work on selecting a camera. I mainly spent time revising the design document and project</p>	6	65

	plan. I also put time in preparing our slides for the presentation, and for the presentation in general.		
Nihaal Sitaraman	Worked on getting the CAN Transceivers soldered to PCB. Worked on wiring harness and made revisions to the project plan. Also did market research on similar products and solutions	7	76

o Plan for coming week

This week we will finish working on our presentation, meet with our client and also receive our last component for the radar which is the camera. We will also be touring the Danfoss test track in Ames and will be starting to create tests for our system. This tour should also help us get an idea of what sort of tests would be good for our system. We hope to have these tests planned out before the end of the semester so we can hit the ground running for EE 492.

o Summary of weekly advisor meeting

Our advisor told us to create more diagrams which would help our client and the faculty panel understand what we are trying to do. We have to now prepare for our presentation during dead week.