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## ***EE/CprE/SE 491 WEEKLY REPORT 4***

10/21/2019-10/27/2019

### ***Group number***

sdmay20-40

### ***Project title***

IC Chipz

### ***Client & Advisor***

Dr. Henry Duwe

### ***Team Members/Role***

Andrew Kicklighter - Mobile Developer

Alexander Weakland - Mobile Developer

Nicholas Dykhuizen - Machine Vision Developer

Justin Elsbernd - Machine Vision Developer

Joshua Heiser - Embedded Developer

Paul Kiel - Embedded Developer

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### **Weekly Summary**

This week we continued to integrate each teams work. The Embedded teams and Machine Vision teams worked together to combine their work. This means that the scripts written by the Embedded team to work with the camera can now be run through the C application designed by the Machine Vision team. The Embedded team also continued to work on setting up the previous team's machine vision algorithm.

### Past week accomplishments

- Combined the C program and the scripts so that now the C code could trigger the scripts (which would stop/start recording, etc) - Nicholas & Justin
- Debugged the mobile application and got the Android version working - Andrew & Alex
- Combined the C program and the scripts so that now the C code could trigger the scripts (which would stop/start recording, etc) - Paul & Josh
- Continued to set up/test previous machine vision algorithm- Paul & Josh

### Individual Contributions

Name	Individual Contributions	Hours this Week	Cumulative Hours
Andrew Kicklighter	<ul style="list-style-type: none"><li>● Debugged the mobile application and got the Android version working</li></ul>	4	19
Alexander Weakland	<ul style="list-style-type: none"><li>● Debugged the mobile application and got the Android version working</li></ul>	4	18
Nicholas Dykhuizen	<ul style="list-style-type: none"><li>● Researched different types of USB to Wifi adapters</li><li>● Researched wifi hotspot setup and bridged connection between two wifi connections</li></ul>	3	18
Justin Elsbernd	<ul style="list-style-type: none"><li>● Finalized integrating Shell scripts into C program (tested)</li><li>● Researched conversion of program from C to C++</li></ul>	3	17
Joshua Heiser	<ul style="list-style-type: none"><li>● Finished integrating Shell scripts for camera into C Code written by Machine Vision team.</li><li>● Continued to work on setting up/ testing the previous teams machine vision algorithm.</li></ul>	4	22
Paul Kiel	<ul style="list-style-type: none"><li>● Finished integrating Shell scripts for camera into C Code written by Machine Vision team.</li></ul>	4	22

	<ul style="list-style-type: none"> <li>Continued to work on setting up/testing the previous teams machine vision algorithm.</li> </ul>		
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**Pending Issues**

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**Plans for the upcoming week**

- Continue to set up/debug previous machine vision code- Paul & Josh
- Setup Wifi Hotspot and potentially join C program to the Mobile App - Nicholas & Justin
- Get the mobile application working on both iOS and Android - Andrew & Alex

**Summary of weekly advisor meeting**

Dr. Duwe talked to each individual team at this week’s advisor meeting and discussed what they did the past week and what they plan to do in the upcoming week. The Embedded team discussed how they had been working with the Machine vision team to implement the scripts into their C program so that it would be able to start/stop video. The Embedded team also discussed their experience in attempting to start the application written by the previous years team, and the next steps to fix some of the issues that arose. The Mobile Application team discussed how they had begun to debug the Android application that had previously been designed, but that they had come across many bugs when converting the code. They discussed with Dr. Duwe about a timeline of when they believed that they could fix the issues that were present in the code so that they could get it into a working state. The Machine vision team discussed their progress in the C application that will start/stop the recording by using Wi-Fi to communicate with the mobile app. The application also sends the recording to the machine learning algorithm to be analyzed. Additionally, the Machine Vision team discussed next steps in terms of implementing the Wi-Fi communication between this program and the mobile app.