EE/CprE/SE 491 WEEKLY REPORT 3

10/14/2019-10/20/2019

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

Weekly Summary

This week we took each sub team's work and began to merge it together onto the Jetson board. The footage recording team setup basic scripts to record and store footage while the integration team began building out the initial C application to handle the communication between the footage recording and the mobile applications. The mobile application team continued to develop an application and began implementing wifi communication with the Jetson board.

Past week accomplishments
- Create a simple program to record footage based on clicks - Nicholas & Justin
- Work on adding iOS to mobile application platform support - Andrew & Alex
  - Created a Xamarin Forms project and transferred over the Android code
  - Debugged the Android code after the transfer as moving the code brought about a few bugs
  - Started writing the code in iOS
- Work with computer vision team to work out application that will start/stop video data collection - Paul & Josh

Individual Contributions

Name	Individual Contributions	Hours this Week	Cumulative Hours
Andrew Kicklighter	Work on adding iOS to mobile application platform support	4	15
Alexander Weakland	Work on adding iOS to mobile application platform support	4	14
Nicholas Dykhuizen	Built out basis of footage recording software Repaired Jetson board GUI Installed footage recording software outline on Jetson board Began tying footage recording software to camera	5	15
Justin Elsbernd	Worked on converting script to C Put script into recording software	4	14
Joshua Heiser	Finished script to start/stop video Investigated/attempted to start Machine vision software from last years team	4	18
Paul Kiel	Finished script to start/stop video Investigated/attempted to start Machine vision software from last years team	4	18

Pending Issues
- Turning a Xamarin.Android application into a Xamarin.Forms application was thought to be automatic. It turns out that you must write some code in iOS and there are some bugs. These are being debugged and delayed progress on the mobile side

Plans for the upcoming week
- Complete the joining of the C program and footage recording software - Paul & Josh
- Connect the mobile application to the C program - Nicholas & Justin
- Finish debugging the Android application and get the application working on iOS - 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 were writing a script for enabling and stopping video and then how they were going to finish it this week. They then discussed the bit rate for the video and the previous year's code. The Mobile team discussed how they were going to transfer the previous Android only application to where it can be run on iOS and Android using Xamarin Forms. They discussed the benefits of non platform specific code. There was only one member of the Machine Vision team there, and he discussed with Dr. Duwe about wifi and documentation, but it was a very brief discussion. After each team talked with Dr. Duwe, we came to an agreement on what our plans were for the following week, which is what is covered in the past week's accomplishments of this document.