

ECE 492 Weekly Report MAY 1607 Week 13

(4/19/2016-4/26/2016)

Advisor: Jaeyoun Kim

Client: Honeywell, FM&T

Members (roles): Gregory Kuhn (Weekly Report), Noah Bergman (Team Leader)

Michael Kelly (Key Concept Holder), Garrett Hembry (Webmaster)

Project Title: Microscope Embedded Display for Assembly Work Instructions

Weekly Summary:

This week our main objective was to finish our final project report. We did this successfully and we also managed to finish integrating the optical lens and engine holders with the microscope.

4/21/16/Group Meeting in TLA

Duration: 240 min **Members Present:** All

Purpose and Goals:

There were two objectives for this meeting, which will both be discussed in greater detail below.

- 1) The first objective was to work on finalizing our project report.
- 2) The second objective was to integrate our fabricated lens and optical engine holders with the microscope system.

Achievements:

- 1) We successfully finished our report. The report consisted of our original design documents as well as three new appendices. We expounded upon our original design document and discussed our problem statement, our problem solving approach as well as our integrated design process. In the three appendices we discussed alternative solutions to our project, difficult and interesting moments in the design process, and concluded with a step by step tutorial on how to setup or project.
- 2) We finished integrating the microscope system to know fully include the lens and optical engine holder. We had previously modified the lens holder by making it wider, thus enabling the optical lenses to be able to fit inside microscope. The modified lens holder also included two new screw holders, making it easier to attach this lens holder to the microscope. With the modified holders we simply placed the lenses inside the lens holders, put the lens holders inside the camera port and attached the optical engine and circuit to the microscope stand via the optical engine holder.

Pending issues

- 1) Prepare for our final senior design presentation.
- 2) Continue to further integrate the micro-projector circuit with EVM software.

Plans for next week

Next week the primary objective must be focusing on preparing for our final presentation on Thursday. We would prepare not only for the presentation in front of the senior design committee, but also for the poster presentation where people would be walking by and asking us questions about our project. We also planned on attempting to integrate the micro-projector circuit's microcontroller with the EVM software. At this point we may not be able to get the microcontroller fully integrated, but it is still important to try.

Individual Contributions (this week)

Gregory Kuhn- Worked on completing the final report.
Assisted in integrating the recently fabricated lens holders into our optical system.

Noah Bergman -Worked on completing the final report.
Assisted in integrating the recently fabricated lens holders into our optical system.

Garrett Hembry -Worked on completing the final report.
Assisted in integrating the recently fabricated lens holders into our optical system

Michael Kelly -Worked on completing the final report.
Assisted in integrating the recently fabricated lens holders into our optical system.

Total contributions for the project

Noah Bergman-88hrs

Gregory Kuhn-88hrs

Michael Kelly-88hrs

Garrett Hembry-88hrs