CPRE 491 WEEKLY REPORT
MAY15-25
Week 5 Report

Advisor: Lee Harker
Client: Lee Harkin / Department of Electrical and Computer Engineering
Project Title: CyLocker Access System

Group Roles

Team Leader ->	Castek
Team WebMaster ->	Corey
Team Communicator ->	Lafferty
Team Key Concept ->	Priyank
Team Technical Leader ->	Mohammad

Weekly Summary

Additional circuit math
Project Plan finalized
Met w/ Lee, discussed locking unit functionality
    Need to “switch” power off, physically to save power

Weekly Accomplishments

Successfully programmed Microcontroller w/ C code, lit LEDs
Installed OS onto Pi, basic pin layouts
Finalized project plan V1
Performed math for circuitry (frequency of circuit, required voltages)

Meeting Minutes

Duration: 40 minutes
Attendance: 100%

Summary:

Discussed previous week
Further discussed microcontroller and the locking element
Discussed following week
Discussed project plan, further assigned goals and deadlines
No inhibitors

https://docs.google.com/a/iastate.edu/document/d/1_BElSrzpx6cLNHfJVWTkqU8nPqM-tBM28j3YD1tVtUU/edit

Progress Impediments

N/A

Individual Contributions

(Name) (this week, total)

Castek: 5.5, (22.4)

- Continued to watch Autodesk Inventor tutorial videos (1.5)
- Hosted meeting (1)
- Specified four different scenarios to calculate power and current consumptions and calculated numbers for servo and LED (1.5)
- Created Part Justification folder and started writing up justifications for why we chose each specific part over another(1.5)

Corey: 5, (23.5)

- Continued testing Arduino Duemilanove- 2 hours
- Researched XBee- 1 hour
- Team meeting - 1 hour
- Researched sleep functionality of Atmega- 1 hour

Lafferty: 7, (22)

- Installed OS onto Pi (1)
- Got HDMI connector properly working (0.5)
- Basic pin support / mapping (0.5)
- Project Plan writeup (1)
- Project Plan Editing (2)
- Weekly Meeting (1)
- Weekly Report (1)

Priyank: 6.5, (21.5)

- Continue with circuitry to power on Atmega328 (2)
- Worked on current/voltage/power consumptions (2)
- Battery numbers and information (1.5)
- Meeting (1)

Mohammad: 5.5, (23.5)

- attended meeting - 1.0 hour
- did calculation on current/power/voltage consumption - 2.0 hours
- pcb design practice - 1.0 hour
- researched on step-up regulator - 1.5 hours

Weekly Plans

Mohammad

- Test locker circuit w/ breadboard

Priyank

- Select resistor/capacitor components to power devices

Castek

- Continue to explore mechanical design of locking unit
- Find answer to “load” calculation question
- Finalize power and current consumption numbers
- Prep for weekly meeting
- Learn what fellow team members found about their systems

Corey

- Create bigger circuit testing with AtMega

- Continue with functionalities of the arduino

Lafferty

- Hookup numpad circuit onto Pi
- Evaluate Pin mapping w/ numpad circuit
    - Is it beneficial to buy a cheap USB numpad?
- Toy with local display