Capstone Team 37: Meeting Minutes
Date: Wednesday, January 11, 2017
Time: 10:00am
Type: Remote
Present: Jessica Blasch, Tyson Gieszler, Tyler Gilbert, JP Grattan

Related
9:00 am: Advisor meeting
Present: Jessica Blasch, Tyson Gieszler, Tyler Gilbert, JP Grattan, Tom Schubert
Type: Remote
Overview: In this meeting the team went over the rough draft proposal for the sponsor with the advisor. Tom has requested weekly advisor-meetings, until the project undertaking has more stability. Below are the minutes for the team's meeting afterward detailing the follow-up to discussion in this meeting.
Next advisor-meeting: **TBD**
> Possibly Tuesday, but Tom is going to see if he can move his office hours on Thursday, January 19, 2017 to have the meeting then.
Time: **TBD**

Team Roles:

It is understood that team roles will be easier to define/designate after the next meeting with the sponsor. Team members will assist each other, as needed, since some workloads may be heavier than others.

Team Lead: Tyson Gieszler
- Point of contact for the sponsor.
  e.g. If the sponsor requests information from the team, the lead will be responsible for collection of information from the team and disseminate it in one email to the sponsor. If a team member needs something specific from the sponsor, they may email directly.

Software Lead: JP Grattan
- Microprocessor
- Drupal framework
- Head Module

Station Module: Tyler Gilbert

Hardware Design: Tyler Gilbert

Software Testing: Jessica Blasch

Python Interface: Tyson Giezsler
- Wrap for Linux to talk to database
- Interface between GUI, OS, and database

System Components:

Analog Power Disruptor (APD):
- Tyson linked the following *Powerswitch tail 2* as an avenue to explore. Cost is $25.95. (not including S/H) https://www.adafruit.com/products/268
- Tyler will work on choosing a Wi-Fi chip and work on an alternate design.

Head Module:
- Linux OS (open source)
- Raspberry Pi 3 or something team makes.
- Drupal "talks" to Python.
- Python "talks" to Linux.
- Python is wrapper between GUI and Linux kernel.
- Is there a Drupal for Linux?

Station Module & Microprocessor:
- Controls RFID.
- "Talks" to Wi-Fi.
- Both need to be programmed.

Station Module:
- Need to make one prototype, because of the lessons learned and the Head Module being copypasta. A second and third SM will be easier.

Software:

Software requirements: JP will make a list of software requirements and email team.

Python Interface: Tyson will be exploring Drupal/Python/Linux interface.

Software testing: Jessica will be exploring how to handle this.

Communication & Documentation:

Note Taker: Primary – Jessica.
- If primary responsible party is not present, alternate team mate will need to assume task.

Project Schedule: Tyson.
- Jessica will assist remotely (experiencing inclement weather conditions)
- Rough draft, at this point.
  e.g. "In 2 weeks we get X done".
- To include parallel projects.
  e.g. Testing software can be designed before another piece, because it can be designed with expected input and output pair.
- First couple weeks of schedule will likely include a lot of product documentation to determine what will be used and how it will communicate.
- MS Project is free to download from dreamspark.com through the school.
- Each project lead should look over their portion and flesh it out down to three to five days max.

Weekly reports: All team members.
  These are informal emails. Their purpose is to keep everyone associated with the project apprised of pertinent information.
  e.g.

```
To: Faculty_Advisor, Industry_Sponsor
Cc: Teammates
Bcc: Self
Subject: WPR (Embedded Controller Capstone Project) week of October 14th

Last Week
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Completed the Verilog code for the state machine
Completed the test plan for the translator (sent out for review)


Next Week---
Conduct review of translator test plan during scheduled team meeting
Write the testbench for the bus interface unit


Problems/Issues
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Unable to get a license key for the FPGA tool set.
Need Lisa to call vendor.
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Reference: http://web.cecs.pdx.edu/~faustm/capstone/index.htm

Team collaboration tool: JP has set up Slack team account.
- Currently the only application that has been added is for GitHub, so it has a visible channel on the Slack app.
- Once it's linked to a repository (JP got access last night), should be able to use Slack channel announce pull/push requests. Should be easier.
- Sponsors (Andrew/Chris) have been added to the Slack account at their request.
- All channels are public and have a full history.
- Can make channels that are private.
- Looks like there is a Google Calendar app. For Slack. Can create a group Calendar separate from private calendars.

Team Meetings:
- Suggest team meet twice a week. Not everyone will be able to attend all meetings, but if a majority is present the team can still accomplish a lot of work.

"To Do":

Tyson:
- Rough draft of schedule with 2-week comb.

Jessica:
- Begin research on using Python for testing software.
  - Use Google Python tutorial. (Python group made online tutorial) Should give enough knowledge to start writing Python test benches.

Tyler:
- Begin researching what will be needed for station module.
- Brush up on Python.
  - Codecademy
- Send JP info on module with Wi-Fi and microcontroller.
  - Tyler has a module that has Wi-Fi and a microcontroller that he wants to see if we can use. Could use for prototyping. Cheap way to add Wi-Fi to Raspberry Pi.

JP:
- Investigate if Drupal can talk directly to Linux or whether we need the Python wrapper.
- Determine if module Tyler is interested in using has an ATmega.
  - If yes, we'd have an ATmega talking to an ATmega and could take out the "middle man" (another ATmega) when we go to the final version and put Wi-Fi on the board.
- Investigate Drupal and Linux. Assess what we need for that.
- Make sure the Raspberry Pi can handle the Drupal framework.

- Slack:
  - Give admin status/access to other team members
  - Give first push.
  - Ask Tom if he would like to be added to the Slack account.
  - See about setting up group calendar.
  - Set up a LID_Capstone@gmail.com account to link to the Google calendar in Slack and give everyone access to edit it from there.

Next Meeting:

- Thursday, January 19, 2017: Tentative. Awaiting Tom's response.
- If Tom cannot attend, team plans to meet in person on the 19th.
- T/Th: JP can meet between 8:30-945 am and then noon to 4:40pm.
- Late meetings:
  - Tyson and Jessica, in general, have no problem with late meetings.
  - Tyler has class at 4:40pm. Can meet after at 7pm.
  - JP's preference is not to have late meetings every week due to transportation/commute concerns.