EE 491 Weekly Report 11

Date: 11-15-16 -- 11-27-16

Group Number: May1735

Project Title: Cy-Mote

Advisor: Dr. Daniels

Team Members:

Kyle Fischer - Team Lead

Michael Linthicum - Communications Lead

Daniel Shauger - Concept Holder Lead

Sam Neff - Webmaster

Nick Juelsgaard - Schedule and Planning Lead

Summary of the Week:

We finished up the software hello world programs we wanted to have done by the first semester. We are more or less on the schedule we set at the beginning of the year.

Past Week Accomplishments

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| --- | --- | --- | --- |
| Name | Accomplishments | Time worked | Cumulative Time |
| Kyle Fischer | The data transmitted via BLE changes on button press. It can now give a random number.  Merged Dan’s, Michael’s, and my code into one build. Still need to debug and test.  Ordered an MCU for the hardware team. | 7 | 43 |
| Michael Linthicum | Bit Banged a complete accelerometer read from the 9 degrees of of freedom sensor using the Arduino Uno. I can read raw data and then process it and display calculated values.  Ported my arduino implementation to the B11. It gets and prints raw data accelerometer data. | 10 | 59 |
| Daniel Shauger | Worked on merging analog input and PWM input with the main code, meetings. | 6 | 44 |
| Sam Neff | Researched power management solutions. Put the atsamb11 on the main board and started connecting components. | 7 | 42 |
| Nick Juelsgaard | Worked on researching the battery charging and power management chips. Worked on creating the files for our chips in Multisim and Ultiboard. Helped create the ppt concept with the group. Put the atsamb11 on the main board and started connecting components. Worked on project plan v2 and | 9 | 49.5 |

Pending Issues:

* Kyle Fischer - Debug alpha model merge. MCUs still don’t like my computer.
* Michael Linthicum - The B11 does not, by default, support floating point calculations. I need to either find a workaround or find a way to add floating point support.
* Daniel Shauger - none
* Sam Neff - Designing the power management portion of our project has proved difficult with our level of experiece.
* Nick Juelsgaard - Need to finish finalized documentation. Life is crazy right now. We are behind on the PCB. We need to get the power management set up. We need to get all the goddamn components picked. Sam and I need to work together

Comments and extended discussion

We are done with our hello world programs. Things are progressing as planned.

Plan for coming week

* Kyle Fischer - Debug code merge. Prepare presentation with the group.
* Michael Linthicum - Combine hello world programs into a single runnable program.
* Daniel Shauger - Work on presentation, finish merging code with button code
* Sam Neff - Work on presentation, finish the alpha model, and continue researching power management solutions.
* Nick Juelsgaard - *work* **work** *w*o*r*kwork *krow|work*

Summary of weekly advisor meeting:

Ordered a dev board for hardware team. Talked about ordering a power chip but Dr. D said that there is a better chip out there that can solve two problems in one.