**WNR (Wireless Neural Recorder)**

Rice University

Weekly Progress Report 3

9/18/2015 - 9/24/2015

**Agenda for meetings**

Mentor Meeting:

1. Discuss and finalize weekly sponsor and mentor meeting times.
2. Updates on documentation
3. Discuss goals for first prototype
4. Discuss possible wireless transmission schemes

Meeting II:

1. Finalize documentation (FOSS I, Product Development Worksheet, Design Foundation, Mission Statement).
2. Address new team roles.

**Activities this week**

1. Finalize weekly meeting schedule to **Thursdays from 12:30 - 1:30 PM in the OEDK**.
2. Adjust team roles based on new meeting schedules.
3. Finish Documentation: FOSS I, Product Development Worksheet, Design Foundation Document, Mission Statement.

**Problems encountered**

1. Finding a common time for everyone for weekly meetings proved difficult.
2. Receiving information slides from Dr. Tandon has been difficult due to delays from his end.

**Time devoted to project this week**

|  |  |  |
| --- | --- | --- |
| **Name** | **Tasks Accomplished** | **Hours Spent** |
| Stephen Xia | * Meet with RCEL and partner team to go over and finalize pitch * FOSS I, Product Development Worksheet, Design Foundation Document, Mission Statement | 11 |
| Tingkai Liu | * Meet with RCEL and partner team to go over and finalize pitch * FOSS I, Product Development Worksheet, Design Foundation Document, Mission Statement | 11 |
| Yuan Gao | * Meet with RCEL and partner team to go over and finalize pitch * FOSS I, Product Development Worksheet, Design Foundation Document, Mission Statement | 11 |
| Xin Huang | * Meet with RCEL and partner team to go over and finalize pitch * FOSS I, Product Development Worksheet, Design Foundation Document, Mission Statement | 11 |
|  | **Team Total** | 44 |

**Meetings Minutes**

Mentor Meeting – 9/24/2015, 12:30 PM - 1:30 PM

Attendees: Stephen Xia, Tingkai Liu, Yuan Gao, Xin Huang, Gary Woods

Completed objectives:

1. Finalized weekly mentor meetings to Thursdays from 12:30 to 1:30 PM.
2. Determined first release goals: wireless transmission with one WCU to server.
   1. Buy multiple BLE chips for testing transmission with multiple units
   2. Discuss other possible options with Dr. Tandon with regards to product design
      1. Use BLE: not enough bandwidth
      2. Use Wifi: not enough power
      3. Use wires to connect an array of units to a single BLE chip
      4. Create own protocol / modify existing protocol
3. Do survey of analog front-end chips to deal with the problems of DC current and high SNR amplification
   1. A good place to begin are the papers that Hamed sent to us

Meeting A – 9/25/2015, 7:00 PM - 4:00 AM

Attendees: Stephen Xia, Tingkai Liu, Yuan Gao, Xin Huang

Completed objectives:

1. Finalized documentation.
2. New team roles; roles listed below.

|  |  |  |
| --- | --- | --- |
| **Name** | **Administrative Responsibility** | **Engineering Responsibility** |
| Yuan Gao | Treasurer and external coordinator | Server end |
| Stephen Xia | Secretary and progress manager (keeping track of progress of tasks and ensure consistent progress) | Analog front-end |
| Tingkai Liu | Taskmaster (Understanding tasks to be accomplished, how to access corresponding rubrics and when to accomplish them by) | Microcontroller and communication protocol |
| Xin Huang | Internal coordinator | Wireless communication (BLE) |

**Expenditures**

N/A

**Action items list**

|  |  |  |  |
| --- | --- | --- | --- |
| **Action item** | **Owner** | **Due date** | **Status** |
| FOSS I, Product Development Worksheet, Mission Statement, Design Foundation Document | All | 9/25/2015 | Complete |
| Pitch refinement and coaching | All | 9/25/2015 | Complete |
| Finalize weekly mentor and sponsor meetings | Xin | 9/25/2015 | Complete |
| First Prototype | All | 10/9/2015 | 0% |
| Revamp minutes/weekly reports | Stephen | 10/1/2015 | Complete |

**Additional Comments/Questions for Mentors**