**WNR (Wireless Neural Recorder)**

Rice University

Weekly Progress Report 24

3/25/2016 - 3/31/2016

**Agenda for meetings**

Mentor Meeting:

1. PCB Updates
2. Merging subsystems/software updates

**Activities this week**

1. PCBs were got back, currently in process of assembling at GI Circuits
2. Compression + SPI is now confirmed to be working

**Problems encountered**

1. We thought bottleneck for software seems to be the fact that we are running off of 32 kHz clock and that we need to find a way to clock off of 32 MHz, but it seems that the Nordic is running off of 32 MHz even though we can’t control it (this was confirmed by scoping out the clock and spi pins)

**Time devoted to project this week**

|  |  |  |
| --- | --- | --- |
| **Name** | **Tasks Accomplished** | **Hours Spent** |
| Stephen Xia | * Merging Subsystems | 15 |
| Tingkai Liu | * Merging Subsystems * PCB Assembly and Testing | 15 |
| Xin Huang | * PCB Assembly and Testing | 10 |
| Yuan Gao | * Merging Subsystems | 10 |
|  | **Team Total** | 50 |

**Meetings Minutes**

Weekly Meeting – 3/31/2016, 12:00PM - 1:00 PM

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

Location: OEDK 104

Completed objectives:

1. PCB Assembly and Testing:
   1. PCBs received; sent them over to GI Circuits to have them assemble the components
   2. In the meantime, we can focus on software aspect and getting system to work
2. Merging Subsystems/Software
   1. The original belief that Nordic automatically used 32 kHz to source every peripheral pin seems to be wrong; we can seem to do a lot of spi and compression within one timer cycle (of 1 ms) with no overlaps or race conditions;
      1. This was confirmed on a scope
   2. Moving on to adding BLE transmission into the mixture

**Expenditures**

* N/A

**Action items list**

|  |  |  |  |
| --- | --- | --- | --- |
| **Action item** | **Owner** | **Due date** | **Status** |
| Combine compression, spi, and transmission | Stephen | 4/14/2016 | 45% |
| Server/Receiver | Yuan Gao | 4/14/2016 | 10% |
| PCB Assembly and Testing | Tingkai Liu | 4/14/2016 | 10% |

**Additional Comments/Questions for Mentors**