Senior Design Agenda 23 January, 2018

Team 2 – Tremors

**1. List of subsystems to be demonstrated and assigned team members:**

EMS – Jake & Anthony

* Electrodes, human interfacing, digital interfacing

Accelerometer – Linda & Mike

* I2C or SPI
* Gyroscope

RSL10 Microcontroller (signal processing) – Mike & Linda

Bluetooth Module – Linda & Mike

* Bluetooth from RSL to cellphone
* Bluetooth to EMS

Cellphone App – Anthony & Jake

Power Systems (battery) – Jake & Anthony

* Battery for the EMS, Battery for the RSL

PCB – Entire team

**Subsystem Hierarchy and Dependencies:**

**First Priority:**

Accelerometer – Nothing can be done if we cannot collect data on tremors. SPI and I2C interface should make this subsystem more doable.

\*\*EMS – Main form of tremor mitigation. Need to determine early on if the EMS will be suitable for our project. If the EMS does not work out, subsystem leaders will have to find a new way to mitigate tremors.

\*\*Cellphone App – User interface and data storage, complicated in that very few of us have experience in cellphone application development.

**Second Priority:**

Bluetooth – Difficult to setup, we should start working on this early. No one on our team has ever worked with Bluetooth, which makes this especially challenging.

**Third Priority:**

Signal Processing – Necessary to identify tremors in the presence of other movement. This subsystem will require data management in order to properly receive, store, process, and send the information.

Power Systems – Everything can be powered using wires and batteries for the first subsystem demo. Will become top priority during the integration stage of the project, since all systems need to meet strict power requirements.

PCB – Board design will be a future priority after all subsystems are functional.

2. Have each team member discuss his/her progress in the past week and goals for the upcoming week.

3. Discuss whether the RSL is a good fit for the project, and results from this week’s initial testing of the RSL.

4. Discuss the practicality of the EMS machine.

5. Determine next meeting date/time.