Notes – EEar Meeting 2/9/17

Updates from project leads:

Audio:

* Code for FFT analysis output into array file is complete (working on audio determination via standard deviation and other statistical data)
* Working on outputting file to Matlab

Next: Microphone data input into code and getting sound identification

Battery/Wristband: Battery power system overhauled

* New design has micro-Usb charging input into charge management chip
* New Li-Ion battery with 110mAh capability that is smaller and has built in protection IC
* New buck-boost DC/DC converter TI chip in schematic that is better than previous DC/DC converter
* New, simpler Maxim fuel-gauge chip with low battery alert and I2C data in schematic

Next: Work on putting together entire schematic for wristband including battery system, LCD, LED, buzzer, and Bluetooth chip – then create board

Raspberry Pi:

* Worked on interfacing Bluetooth from Pi and getting connection stable
* Microphone input into PI
* Eliminating 2nd hub for now, focusing on getting first one functional

Next: Continue to work on interfacing Bluetooth/microphone and getting input into FFT C code to identify sound signals

App:

* Familiarizing with app code
* Working on creating sound test functionality with app code
* Possibly thinking of other hardware solutions to incorporate with the PI to avoid making an app

Next: New solution to get name and alert data into PI to push to wristband via Bluetooth

Open Questions:

Can the wristband board be small enough?

Where was the trivia question (KYLE!)?

Can we use hardware to input the alert status and name?