

**SE 492 – sdmay20-48**

**Hear Together**

**Biweekly Report 4**

**2/28 – 3/12**

Client and Adviser: Mat Wymore

#### Team Members

Jessie Rutledge - Communicator/Full Stack Developer

Andrew Peterson - Backend Developer

Paul Licata - Full Stack/QA Developer

Richard Smith - Frontend Developer

Roger Ferguson - Test Engineer

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#### **Status for 2/28 - 3/12 (2 weeks):**

##### **Weekly Summary**

##### **Past two week accomplishments**

Jessie Rutledge: Worked on establishing socket connection. Figured out more updated means of sending data than currently documented on android. Socket configured to send floats saved to a file (FFT converts to float); so FFT is done prior to any communication.

Andrew Peterson: Worked a little on Firebase, but also did a fair amount of research into TarsosDSP and the Fourier Transform.

Paul Licata: Did mostly TarsosDSP and FFT research, manipulating specific groups of frequencies is proving difficult. Spoke to Jessie about sending data formats and sending audio via WiFi direct.

Richard Smith: Worked further into firebase with Andrew and worked on the powerpoint presentation slides. Very busy week with other classes so didn't get as much done as I wanted to with this one, unfortunately.

Roger Ferguson: Worked on refining the Wifi Direct connections by establishing services to hide nonapplication connections and allow the placement of security.

##### **Plans for the upcoming weeks:**

(WiFi Team) Roger Ferguson and Jessie Rutledge: Be able to send data via a socket from one device to another. Hide devices not within an app session via services. Selection of devices that specifically have the application installed by fishing for responses only produced by the application. More precise sending of data by coupling the devices to the session object.

Richard Smith:

Andrew Peterson: We really need a working implementation of a sound -> frequency -> sound transformer at this point, and that is what Andrew is going to tackle in the next 2 (3 including spring break) weeks.

Paul Licata: It is a priority to implement frequency manipulation after recording audio from input. I will be spending a lot of time over spring break and the weeks following working on this.

<b>Name</b>	<b>Individual Contributions</b>	<b>Hours this Cycle</b>	<b>Hours Cumulative</b>
Jessie	Added an implementation of sending files containing float values over a socket. Looked into means of flushing unwanted wifi devices from the device list.	12	39
Andrew	Researched methods related to FFT in TarsosDSP and other DSP ideas (windowing, sparseness).	7	33
Paul	Played around with Tarsos library and FFT's in general to get try to filter frequency regions.	7	32
Richard	Debugged firebase issues along with further implementation of data usage for the app.	9	35
Roger	Worked on establishing a Wifi Direct Service in order to limit the devices shown to those with the application	7	36

	running and installed		
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