ECE496 Weekly Status Report
Team GA-5
2016-03-28

Meeting Leader: N/A

Previous Goals and Progress Toward Those Goals

- Begin Bluetooth integration with Java application [Ryan] – Completely read through Android Bluetooth API official documentation and downloaded/tested Bluetooth IM program between two Android devices. In the process of adapting it to work with the C code on the Pi.
- Begin Bluetooth integration with C [Jules]. Met with TA (Quresh) to explore UDP implementation on Raspberry Pi. Also explore solution of file transfer using Bluetooth adapter module.
- Design and build new amplifier for new pickup [Michael, Shane] – Was completed, but now we think there is a busted component somewhere. Will look into it today, 3/28/16
- Finalize motor control circuit design [Duke] – completed PCB design
- Try to use new, smaller motor to turn tuning peg [Michael, Ryan, Duke] – Unable to complete because of motor perforation board woes. See "Unresolved Problems".
- Design perforation board circuit for amplifier and filter [Michael] – Completed and ready for build

Goals for the Next Week (After Spring Break)

- Finalize Bluetooth Java code for Android Application [Ryan].
- Finalize Bluetooth C code for Raspberry Pi [Jules].
- Solder amplifier/filter circuit to perforation board [Michael, Shane, Duke]
- Troubleshoot amplifier [Michael, Shane] – see unresolved problems
- Solder motor control circuit using the new PCB [Duke]

Unresolved Problems

- Attempting to solder the motor control circuit to a perf board proved more difficult than was anticipated. We finished one section for testing, but unfortunately a multiplexer chip broke in the process and we didn't have an extra. We have ordered replacements (with extras) and expedited the shipping. We also have solid core wire on the way to test motor control with on a breadboard in the meantime, which should arrive by afternoon 03/28.
- After the amplifier was completed last week by Shane and Michael, we were seeing a sinusoidal output. Michael removed the ¼" audio jacks in order to aid in design of the perforation board circuit and did not replace them, but when Ryan came in the next day, he did not see a sinusoidal output and only saw noise. Michael was away over the weekend but will be in 3/28 to aid in troubleshooting the amplifier. The new, backup components ordered at the same time as the original circuit components can be used on the perforation board without issue, and all should work perfectly (if necessary).

Questions

None.

Other information

None.