

Team Leader: **Michael Sizemore**

Secretary: **Sara Taylor**

Team members in attendance:

Michael Sizemore, Mark Wurzelbacher, Sara Taylor, Eric Nolan

## **Review of Last Meeting**

Review of completed works

- 3D Printer Case
- Battery Issues
- ESD
- Subsystem Demo Requirements

## **Meeting Summary**

3D Case

- Went over meetings with Dr. Strebinger; Discussed conclusions
- Dr. Schafer recommended looking at polycase; predesigned cases with easy modifications, such as cutting slots
- May be easier, but perhaps not as professional looking, than using ProE
- Dr. Schafer believes ProE is very counterintuitive and warns

Battery Issues

- Mark ordered 5 different and free samples online - IC boxes, leadless packages
- Wouldn't be able to prototype on?
- Upon Dr. Schafers inspection, concerned about circuitry that samples require
- Dr. Schafer recommends designing circuit on Eagle and finding package for part; may be able to find a library part for it already made online

Concern of ESD

- ESD Bracelets? Way to ground self?
- Dr. Schafer said to check with Clint
- Mark may have a result

Subsystem Demo Requirements

- In syllabus, but what specifically is needed?
- Do something with the DSP-Do some sort of Digital Signal Processing
- Be able to charge the battery
  - Hook up an LED; have low battery indicators
- May want to try MEMS microphone packages
  - 30 samples free are on the way in the mail
- User interface with no microcontroller
- Essential systems: ability to use DSP to handle user interface, handle battery charging; without these systems need a redesign
- Write to Eprom
  - Through development board, development to eeprom, will write to
  - Without development board, will there be a programming interface? USB?

- Not wise to write program and solder to board - cannot modify

### **Unresolved Issues**

- Interface
  - Is there interface other than USB
  - Option would be to put interface onto design and plug into
  - Dr. Schafer thinks USB is a 'real pain to do'
  - If you look at spec for DSP, there should be some programming interface; recommends we figure out programming interface
  - Want to be able to program board in situ
- Tom met with Natalie to install on computer, but need administrator rights are required - work in progress
  - May have disc permission and install on flash drive; Michael thinks that it won't work
- Make protoboard by the end of the week
- Battery size, voltage, and selection
  - Charging circuit will have microUSB connector, handy and wouldn't have to drain battery
  - Will pick battery to match charger
- Recommend printing out board to scale, put part on, and make sure it makes sense