

Team Leader: **Tom Blanford**

Secretary: **Eric Nolan**

Team members in attendance:

Michael Sizemore, Mark Wurzelbacher, Sara Taylor, Eric Nolan, Thomas Blanford

Review of Last Meeting

N/A

Meeting Summary

Discussed part ordering

- Issue with inputting 4 channels of audio into 2 A/D converters
- Necessity of stereo during development
 - Developing with only 2 channels considered and to be expanded upon later when custom built board
 - For subsystem development testing stereo not needed
- 1 A/D needed external to on board chip to achieve 4 channels
- 8-bit sampling for audio signals

Subsystem Demo

- Must demonstrate that A/D interface works properly
 - 8-bit audio
- Schafer will look at external A/D interface to make sure that it will work properly
- Issue with microcontroller - necessary?
 - DSP has some available pins that could be used for user interface if enough pins are available
 - Programs loaded to the DSP from memory
 - DSP can self boot from memory
 - Updatibility of software on board
 - nice for development - easily make/test changes
 - Must consider how programs are put onto the chip
- Michael brought up the issue of powering the devices - associated circuitry
 - Rechargeable vs. replaceable battery
 - Rechargeable 9V available Ni metal hydride (~7.8V)
 - Voltage regulator
 - Low battery indication
 - Indication - must know discharge profile of specific battery
 - Built in circuitry for recharging exists for given battery chemistry
 - Has been done before but not trivial
 - Target Battery life
 - Comparable to battery life to ipod/mp3 at minimum
- Mark brought up method of ordering parts
 - Itemized spreadsheet should be emailed to Schafer

- ND does not pay sales tax
- minimum quantity per sale
- Reduce the amount of ordered microphones
- Heaphone/microphone assembly
 - Surface mount package
 - Schafer asked how newer larger microphones would be mounted to headphones/ cables run to headphones
 - considered mounting microphones within headphone package
 - Surface mounting equipment available (hot air solder paste)
 - Dr. Schafer asked to see leads for microphones (email part number)
- Schafer warned that this semester will be more rigorously graded than last semester.

Unresolved Issues

- Packaging/case design
- See Natalie to obtain key for team boxes
- Put development kit into team box
- Email Schafer microphone part number/specs
- Email order form for development board to Schafer
- Look into headphones most suitable for modification
- Schafer will email website information soon
- Fill out Action items
- Order form for parts - finalize parts
- Microcontroller debate

Weekly Assignments

- Everyone read into microcontroller/DSP
- Show up for Friday