Seeing Sound!

Daniel Benjamin

Stephen Krackhardt

Sam Russell

Adrienne Pajer
Status

• Project Idea Finalized: Designing system to create real time light show from music or someone’s voice
• Parts List Finalized: Arduino Uno, Audio Input Shield, DMX-512 Serial Shield, LED Panel
• Parts Ordered
• Code Repository set up
• Libraries found for shield
Use Cases

• Setup:
  – Set arduino pins in software

• Reset:
  – Reset button
  – Monitor songs for dead air, perform reset after every song

• Reliability:
  – Microphone can break, then we use iPod
  – iPod can break, then we use microphone

• Sound input through:
  – microphone
  – iPod
# Risks and Mitigation

<table>
<thead>
<tr>
<th>Risk</th>
<th>Solution</th>
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<tbody>
<tr>
<td>2 Shields needing the same pins on the arduino</td>
<td>Jump the shield pins to other arduino pins, make changes in pins used in software</td>
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<tr>
<td>Audio signal being diminished by audio splitter</td>
<td>Add audio amplifier in audio splitter</td>
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<tr>
<td>Microphone breaks</td>
<td>Use iPod</td>
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<tr>
<td>Speakers not being loud enough for demo</td>
<td>Use headphones</td>
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<tr>
<td>Microphone picking up background noise during demo</td>
<td>Use iPod</td>
</tr>
<tr>
<td>LEDs are not bright enough during demo</td>
<td>Turn off lights in Rangos : )</td>
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<tr>
<td>Can’t get lighting DMX protocol working</td>
<td>Build own LED matrix</td>
</tr>
<tr>
<td>DMX Shield doesn’t work</td>
<td>Build own DMX shield</td>
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