

Seeing Sound!

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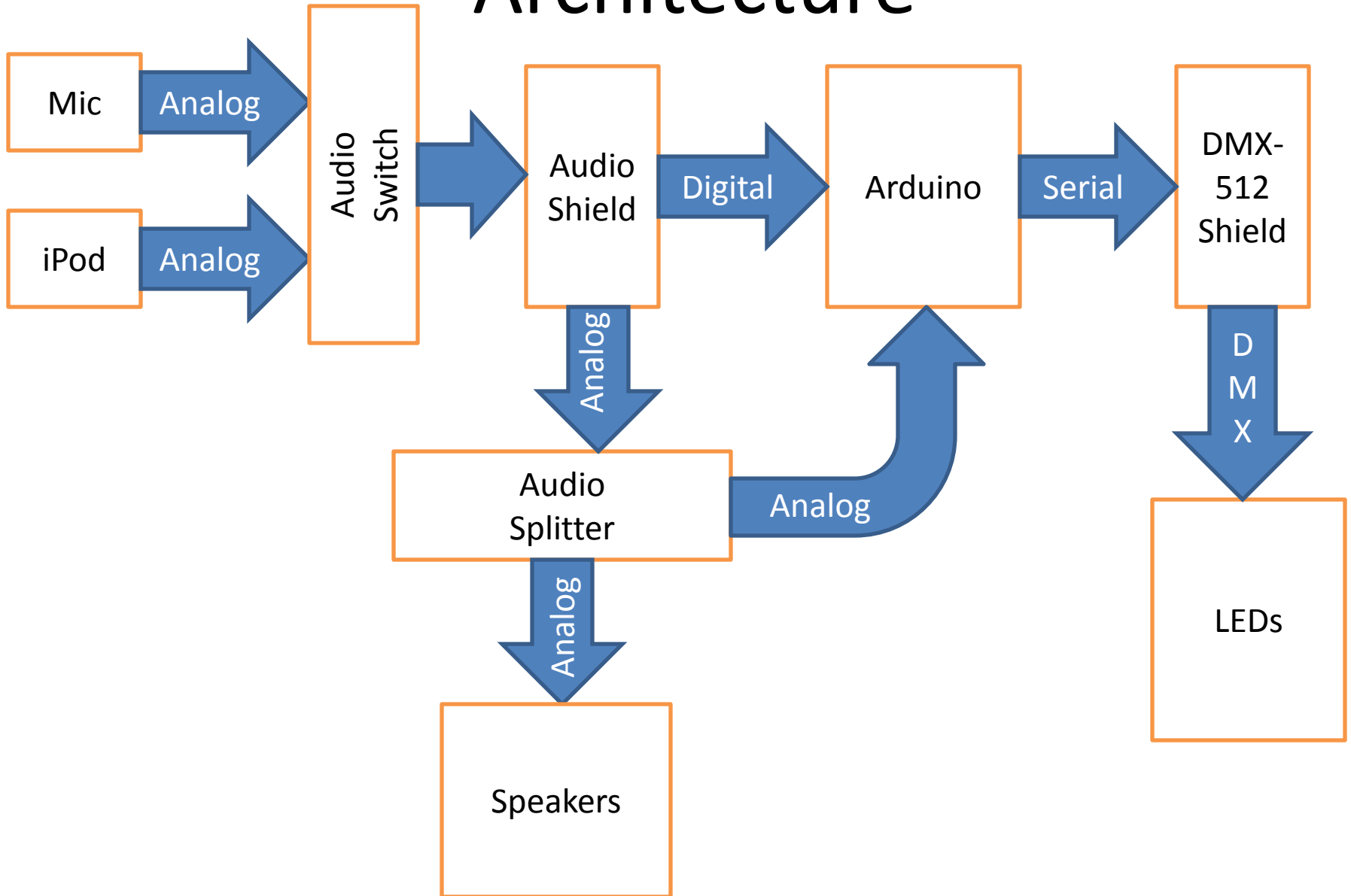
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Status

- 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

Architecture



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

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