



Australian
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An Arduino-based instrument for more intuitive expression of electronic music

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Introduction

- How can we make electronic music more intuitive to play & create?
- Seek a deeper understanding of relationship between technology and music
- Push the boundaries of how we currently engage with and produce electronic music

Motivation

Existing electronic musical production – are they intuitive?



Not particularly – more accessible instruments needed

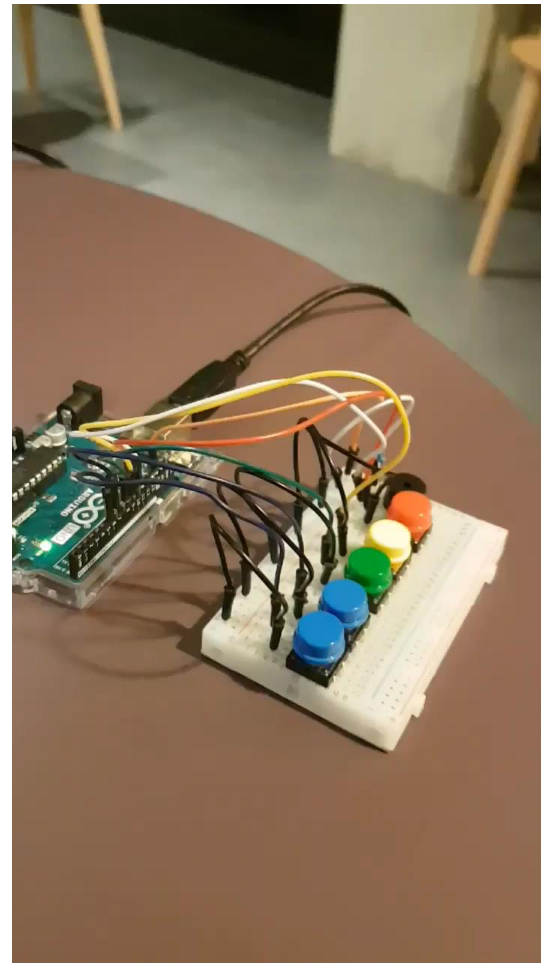
To create a more intuitive electronic music instrument without compromising on expressivity

Background

- NIME – New Interfaces for Musical Expression
 - Inspiration
 - Development
 - Evaluation
- Arduino
 - Inspiration
 - Development

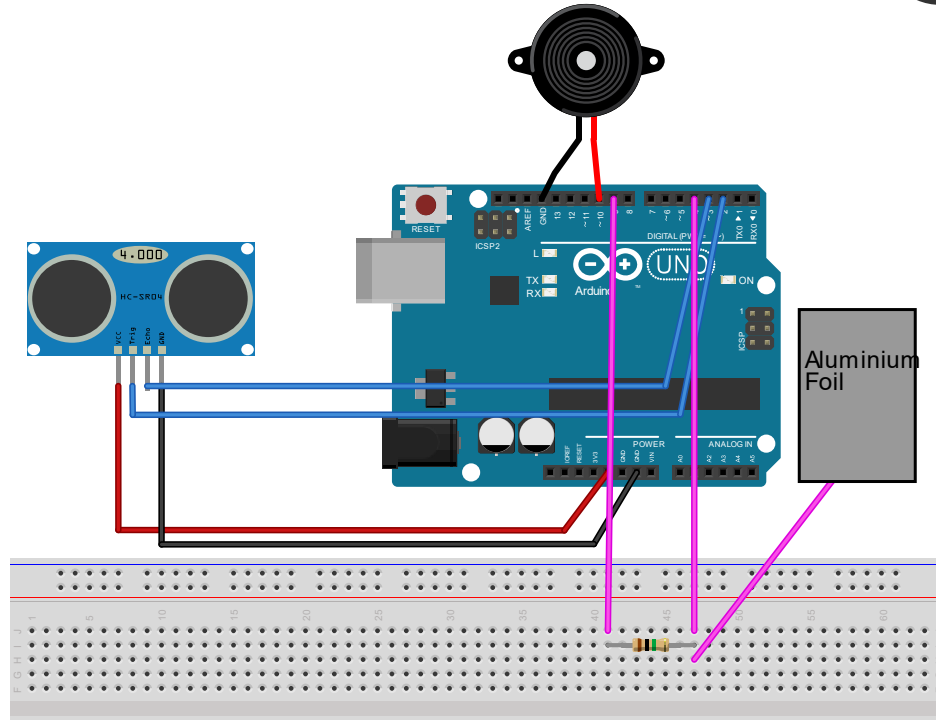
Preliminary Results

- Built an Arduino mini-piano
 - Getting familiar with Arduino

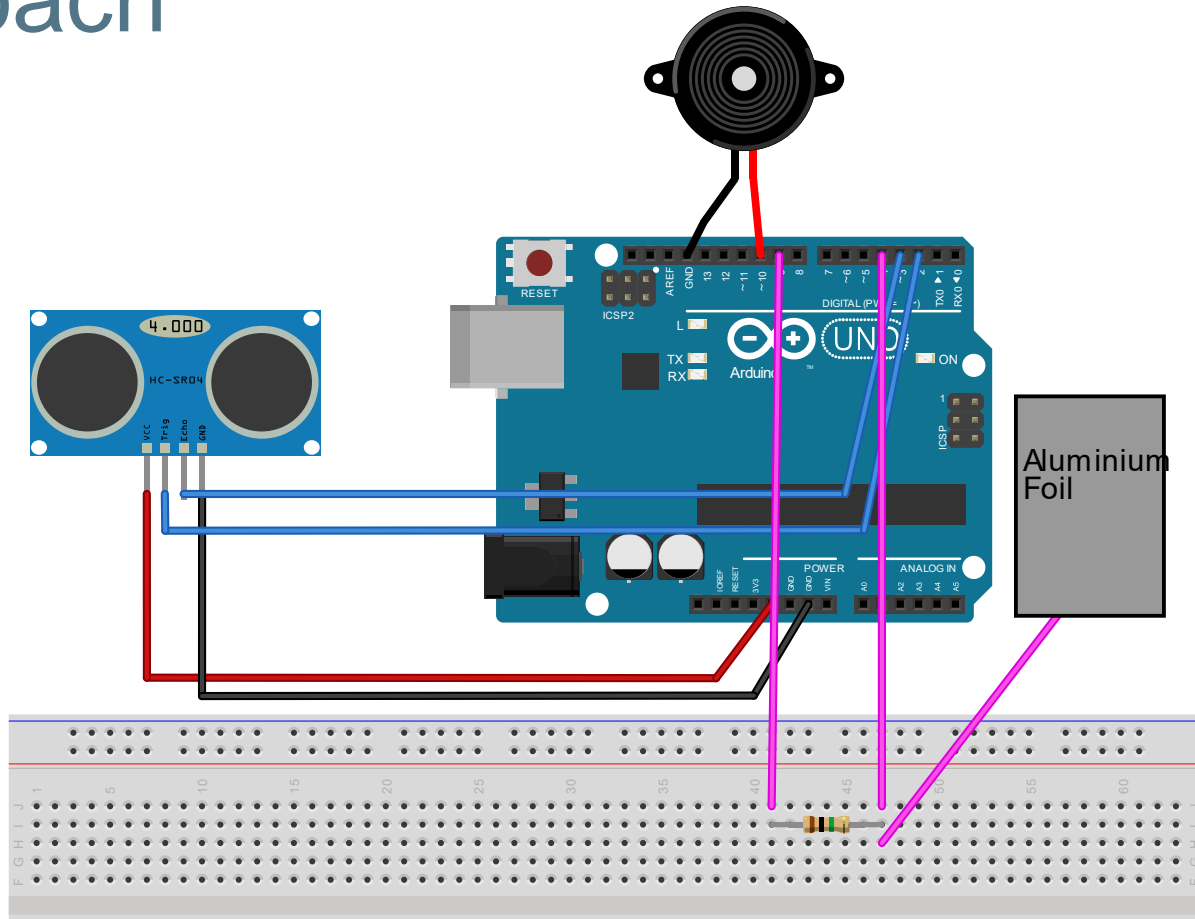


Approach

- Future Direction:
Continuous sound
& Percussion
element



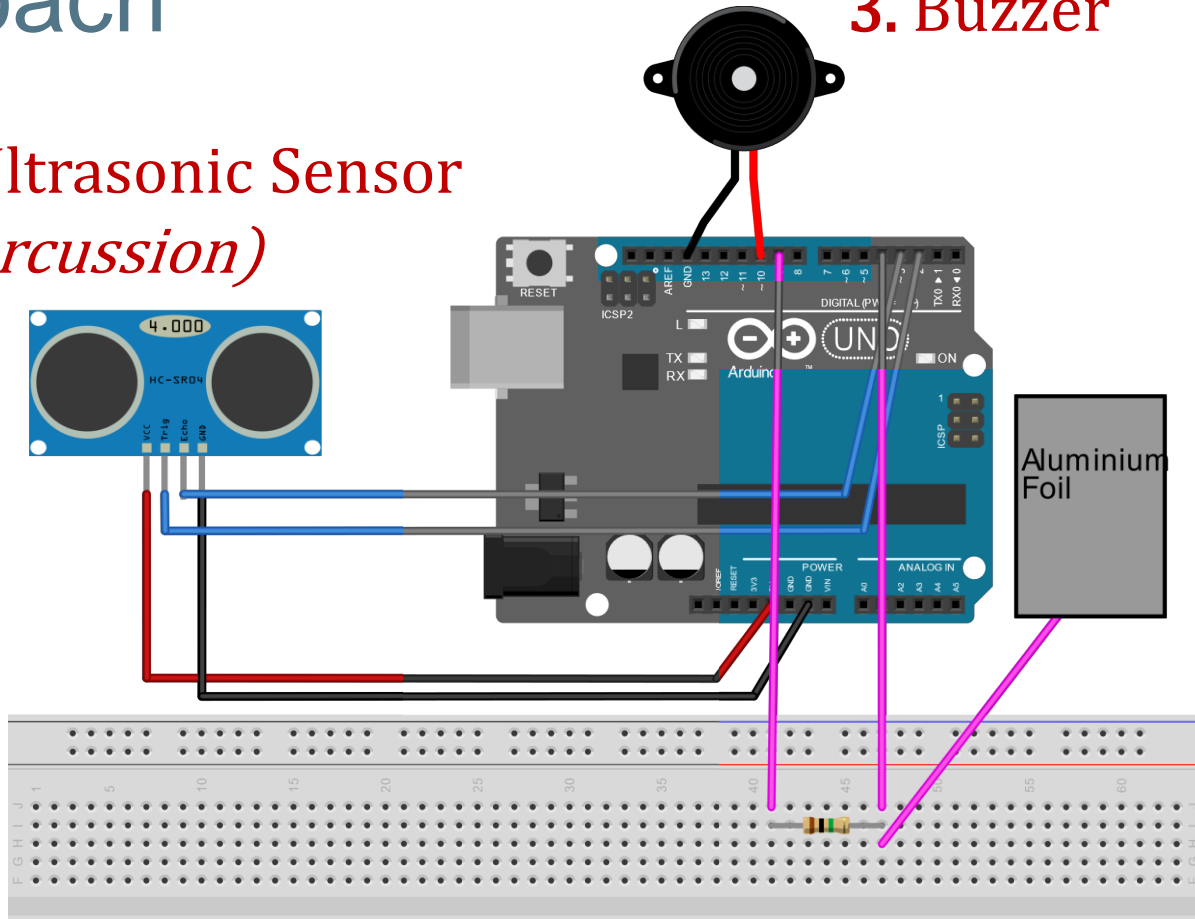
Approach



Approach

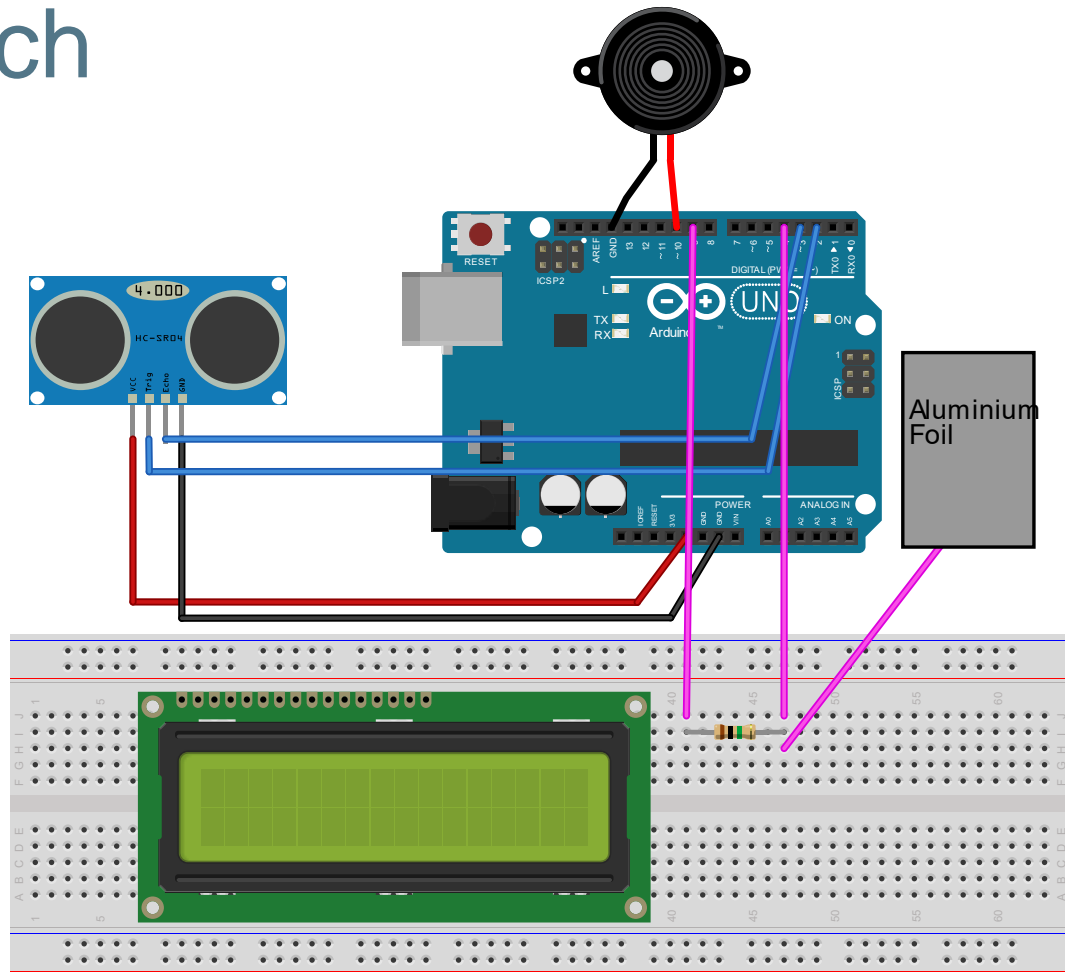
3. Buzzer

2. Ultrasonic Sensor (Percussion)

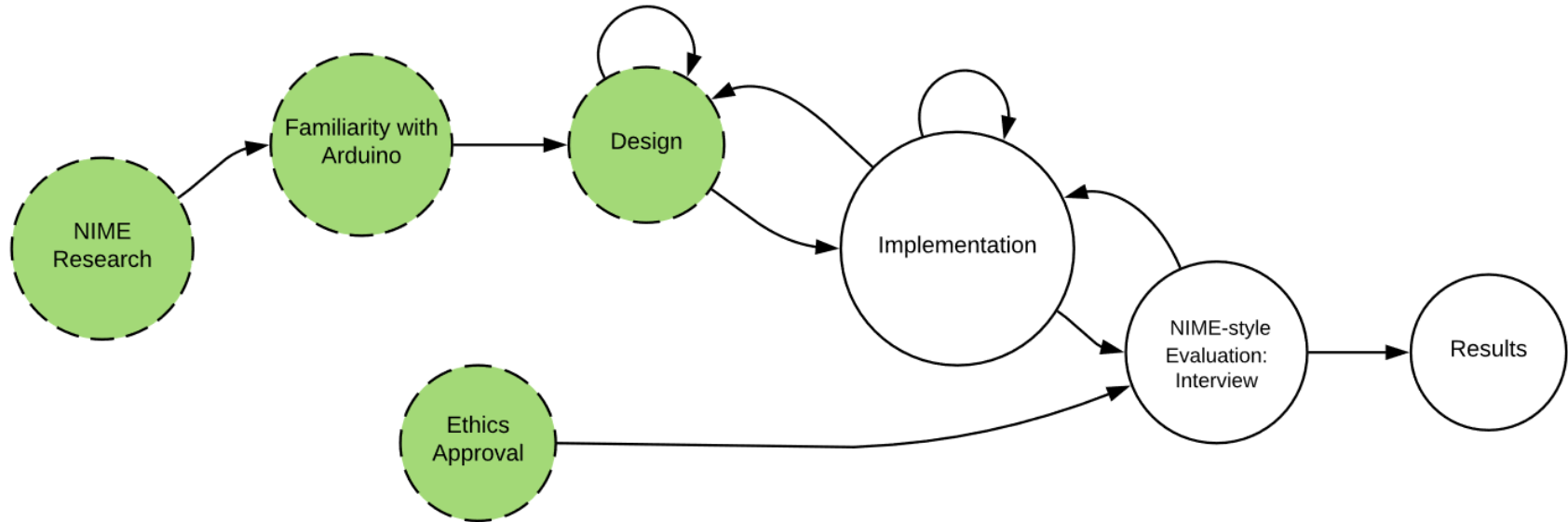


1. Capacitive Touch (Continuous Sound)

Approach



Roadmap



Conclusion

- Seeking to create a more intuitive instrument for electronic music expression
- Hopefully, multiple paradigms of musical expressivity will be accounted for (e.g. percussion, continuous sound, volume)
- Evaluation: NIME-based Interview-style

Thank you!