WubSuit.

A MIDI-compatible digital body suit inspired for the dubstep genius in all of us.
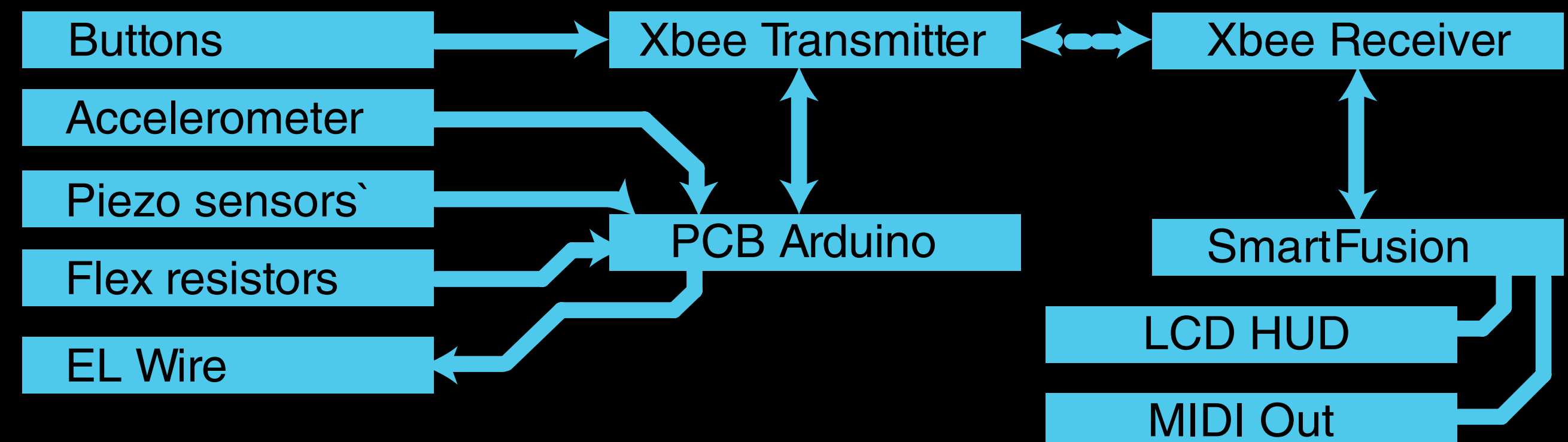
Intro

Problem

Solution

Conclusion

Communication & Sensors

Xbee modules on both ends of the system (suit and receiver) provide all data communication for the above sensors.

Some minimal pre-processing is done via an onboard Arduino microcontroller, but all real processing is done on the SmartFusion.

Button events function as interrupts on the Xbee line, and are then picked up on the receiving module, emulating the input pin.
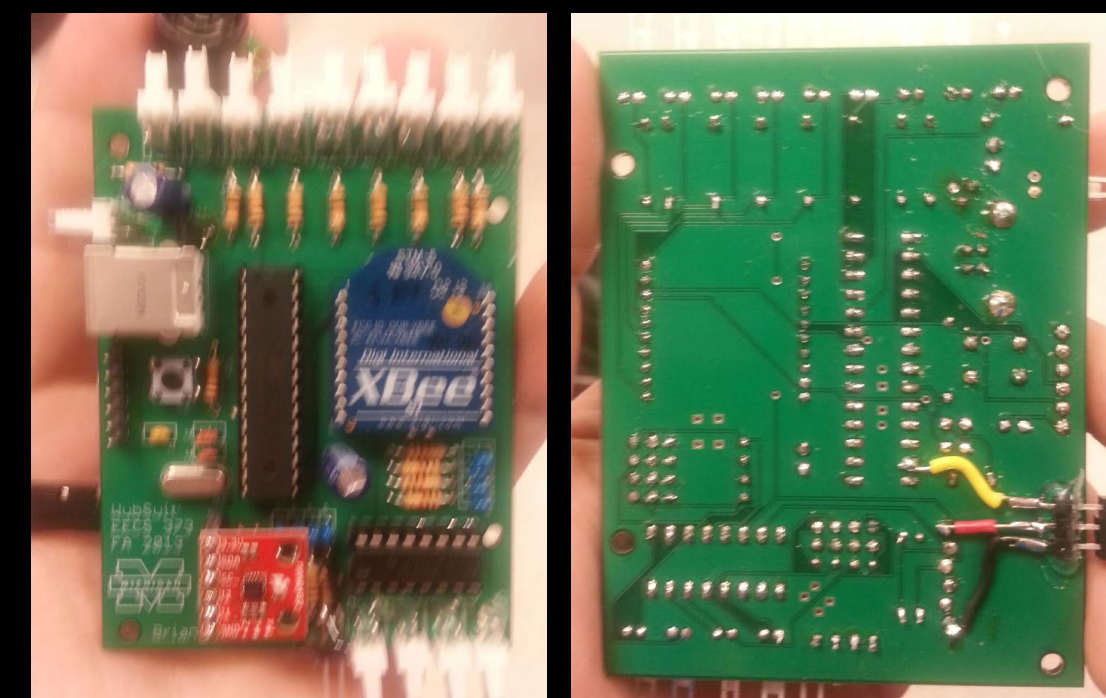
Hardware & Interfacing

Accelerometer and PCB

Ultrasonic distance sensor / Button

Flexible resistors

Piezo knock sensors

A plethera of sensors on the suit provide the user with various MIDI control options whhile manipulating music notes and beats.

The WubSuit features a one of a kind hand-built body suit with EL wire for the classiest of MIDI-needed events. With wireless communication and batteries, there's no need to be teathered to your system.

Custom PCB

Prototypes

Breadboard test suit PCB

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https://github.com/bridadan/WubSuit
http://youtu.be/something

EECS 373
Design of Microprocessor-Based Systems