Analog Sensors Potentiometer, distance sensor, etc. Adafruit Feather M0 WiFi **Sensor Processing Code** Converts analogRead/digitalRead values into a single 24-bit/3-byte number in MIDI format **Web Server Code** Hosts a web server over WiFi @ 192.168.1.1 that outputs 3-byte number

Audio Output

Speakers

Computer

Python Web Scraper Script

using urllib2 and BeautifulSoup to continuously send requests to Feather server and scraps the single 3-byte number

Virtual Serial Port Driver

Opens up 2 virtual COM ports for sending and receiving using Eltima

Python to Serial

Reformats scraped 3-byte number into proper MIDI message and sends it into receiving COM port and out through sending COM port

Virtual MIDI Port Driver

Opens up 1 virtual MIDI port for sending and receiving using loopMIDI

Hairless MIDI <-> Serial Bridge

Routes COM Port signal into MIDI port

Ableton

DAW routing MIDI messages into software synthesizer

Serum

Software Synth generates audio based on MIDI message