How WoodEar Works

1. Data collected at tree
2. Sent via USB to computer
3. Mac Mini connected via USB to sensor box processes and relays data to streaming server
4. Data received by streaming server is sent back out to any WoodEar client application that connects to it.
5. WoodEar desktop application receives the live data, resulting in the final piece.

Sensors
- temperature/pressure sensor
- luminosity sensors
- accelerometer

Arduino code
Tells the Arduino microcontroller how to interface with sensors and retrieve their data. It also tells the microcontroller how to talk to the Mac Mini.

Max/MSP
Listens to the data coming in via the USB cable. Parses the data, arranges it into a package, and streams the data to a Linux-based server (www.petertraub.net).

Ruby data server
Small server script written in Ruby. Takes the data streamed to it from the Max/MSP program on the installation machine, and re-streams it out to multiple clients (i.e. users).

Processing-based application
The end-user application. Written with multi-media language, Processing. It connects to the data server and grabs a live stream of the tree data.