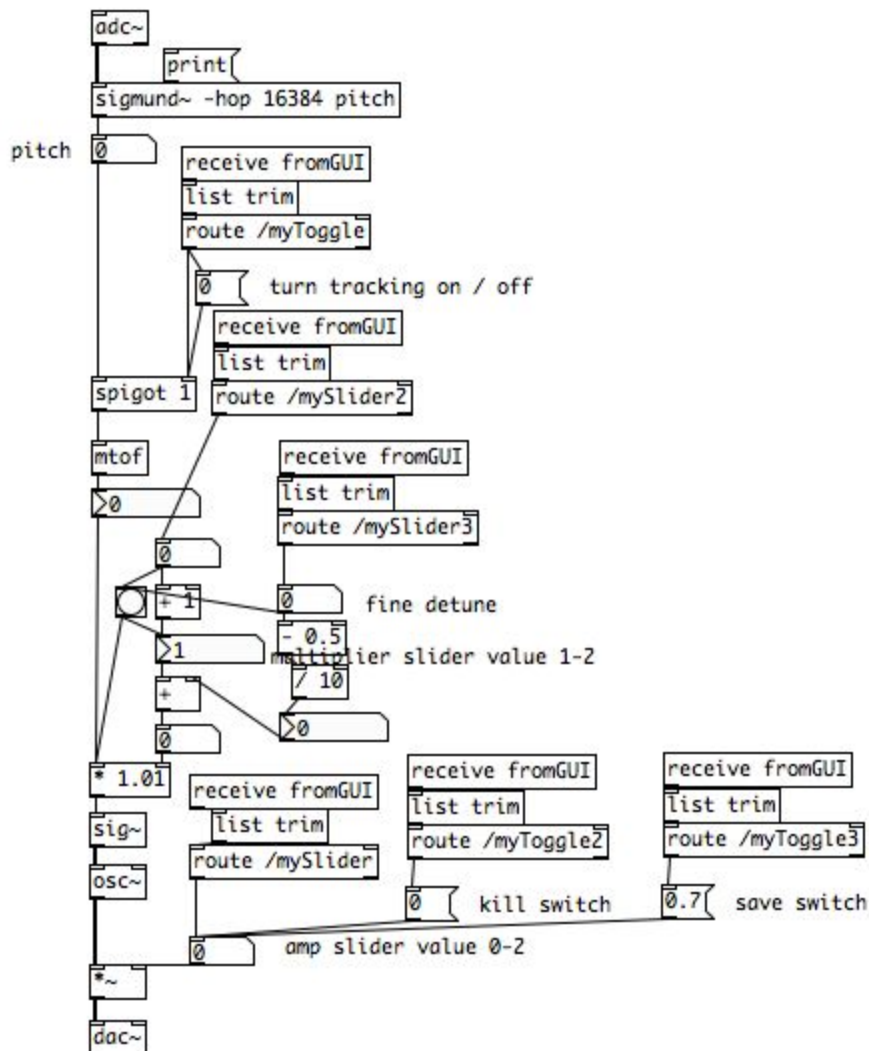


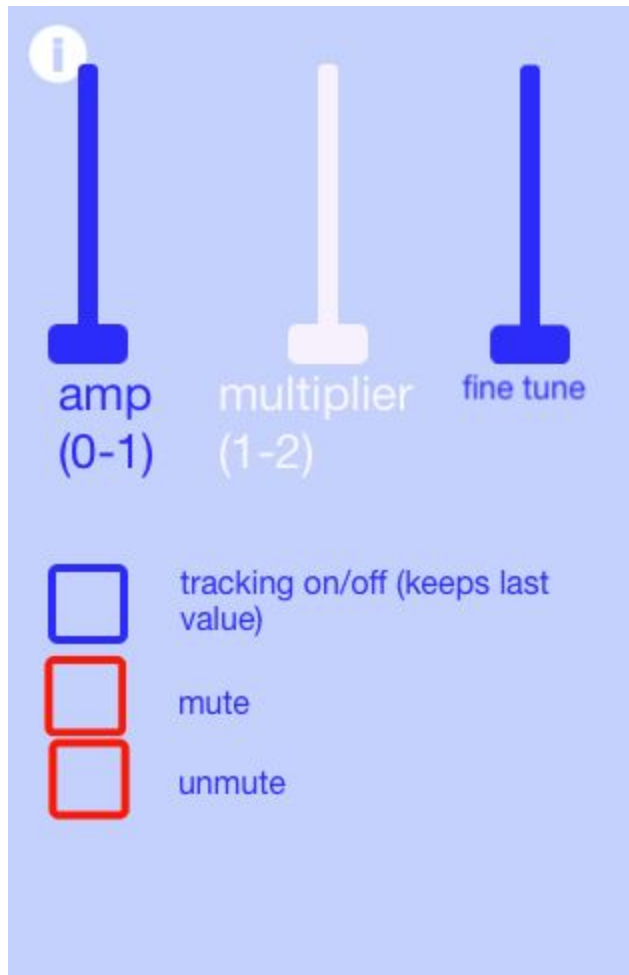
by Ezra Teboul
for the Dartmouth Contemporary Music Ensemble (2015)

1. use a smartphone to produce a "seed" sine tone (I use a test signal generator or a PD patch). This "seed" device will produce an unchanging pitch throughout the performance. (a few seconds)

here is a screen capture of the pd patch:



it is designed to work on iOS / Android using Daniel Iglesias' MobMuPlat wrappers. Here is a screen capture of the smartphone interface we used for a performance at Spectrum (NYC):



3. Once each listening smartphone has been "seeded" with the source frequency, each player turns off tracking, saving the "seed" frequency (each phone is at this point producing a constant sinewave, beating with every other player's tone). (at each performers' pace).
4. using the tune and fine tune adjustments, each player experiments with an optimal frequency considering the ensemble, the performance space, and their personal preferences. (15 seconds to a minute).
5. explore the space and the evolution of localized beating patterns as competing tones go further and closer from each listener. Form subgroups, break them apart, repeat. (2 to 4 minutes)
6. Once the capacities of this "4-6 sine wave generators in a space" instruments have been satisfyingly explored, turn tracking back on for every device but the original "seed". (on an agreed but discreet signal)
7. As the devices produce chaotic sounds, return to the "seed" device, in a central location of the space. One by one, allow each device to reproduce the seed frequency by bringing it very close to the seed,

listening, blocking the tracking, and adjusting the fine tune so all the smartphones are as close to unison as possible with each other and the "seed". (30 seconds to a minute)

8. After a few seconds of unison, quickly turn down the amplitude on each device, bringing each device to silence (including the seed) and ending the piece. (30 seconds max)