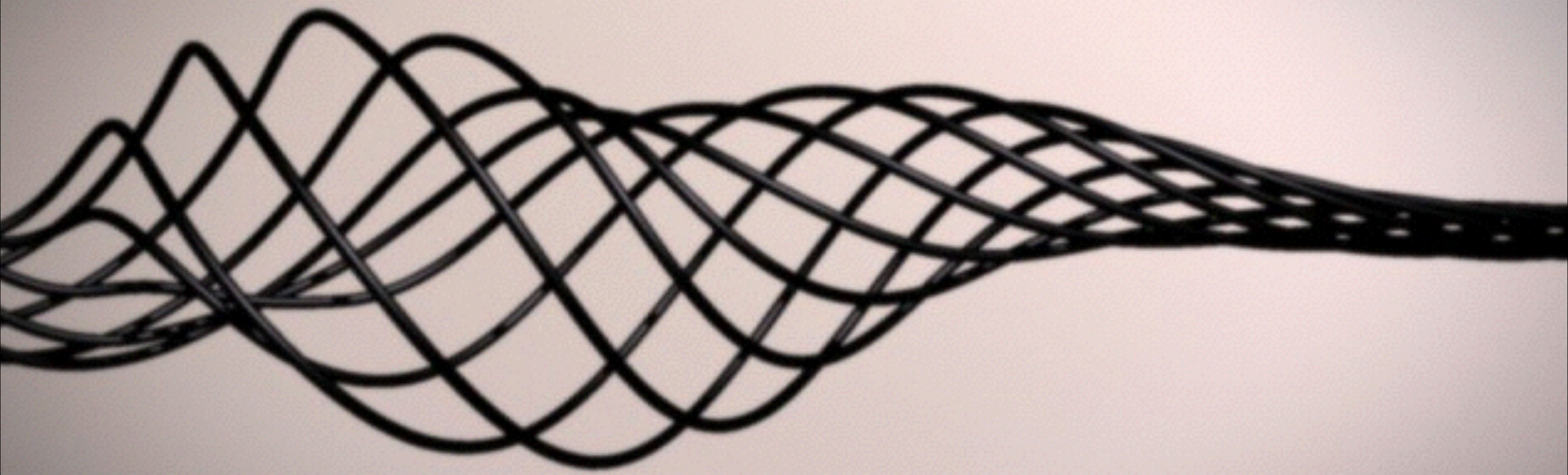
Soundscape

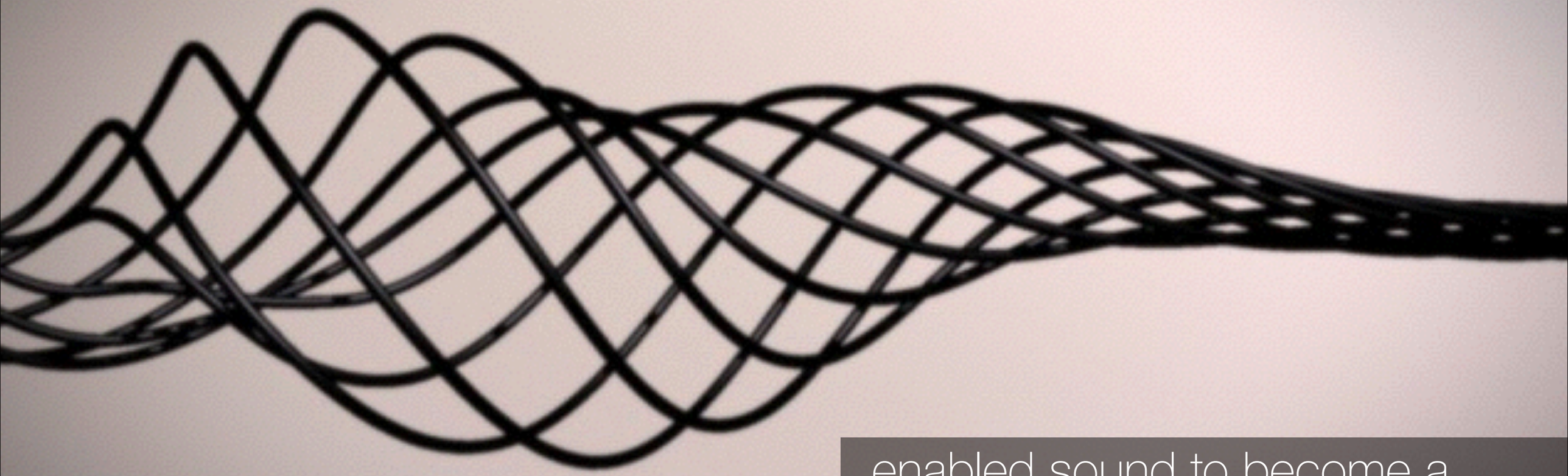
Project 2: Programmable Materiality
MAS.834 Tangible Interfaces

Mohammad Hadhrawi, Dave Miranowski, Vasant Ram, Douglas Sanchez

Inspiration

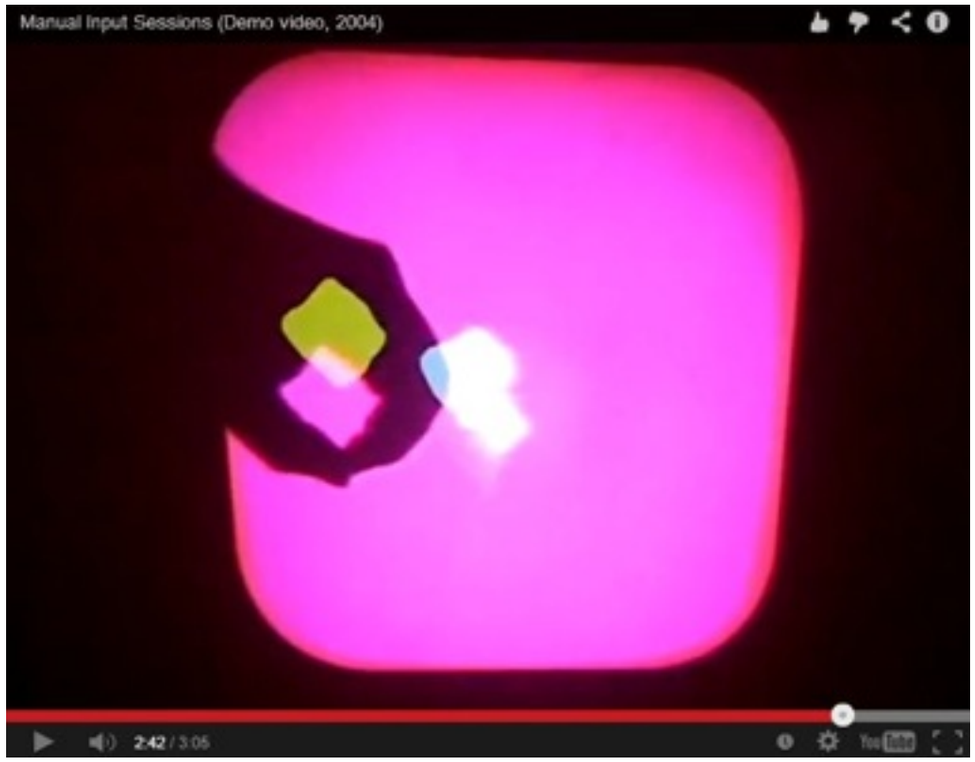


Inspiration



enabled sound to become a
physical embodiment

Related Work


Manual Input Sessions (Demo video, 2004)
2:42 / 3:05

The Manual
Input Station

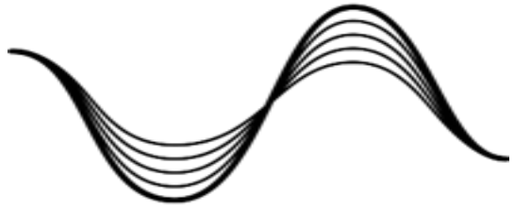
Me, my Guitars, and Keepon
0:19 / 2:15

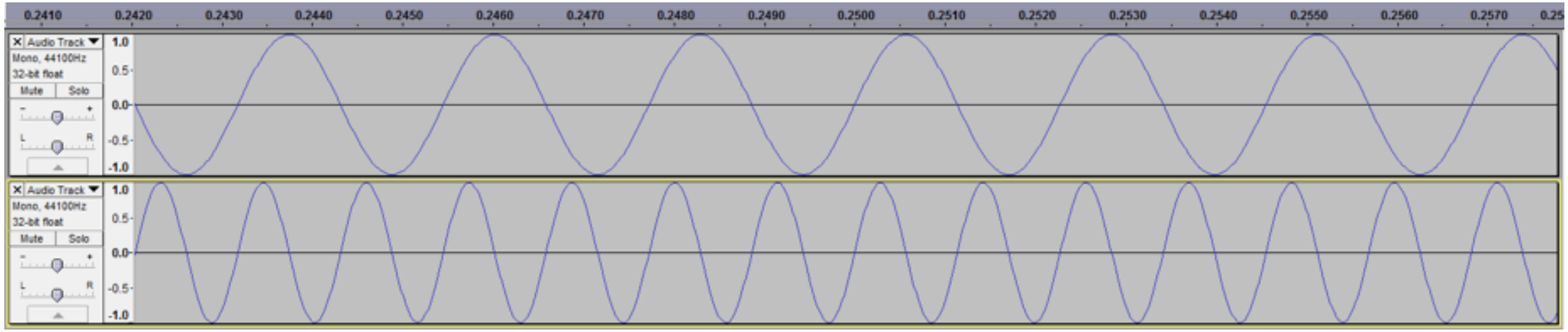
Dance
Touch
Meet
Built-in microphone
Listens to your music
Invisible touch sensors
Powered by Batteries or Adapter
Craves attention
Speaks its own language
Multi-axis movement

Background

440 Hz

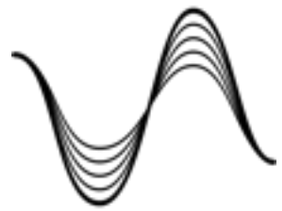
Lower Frequency



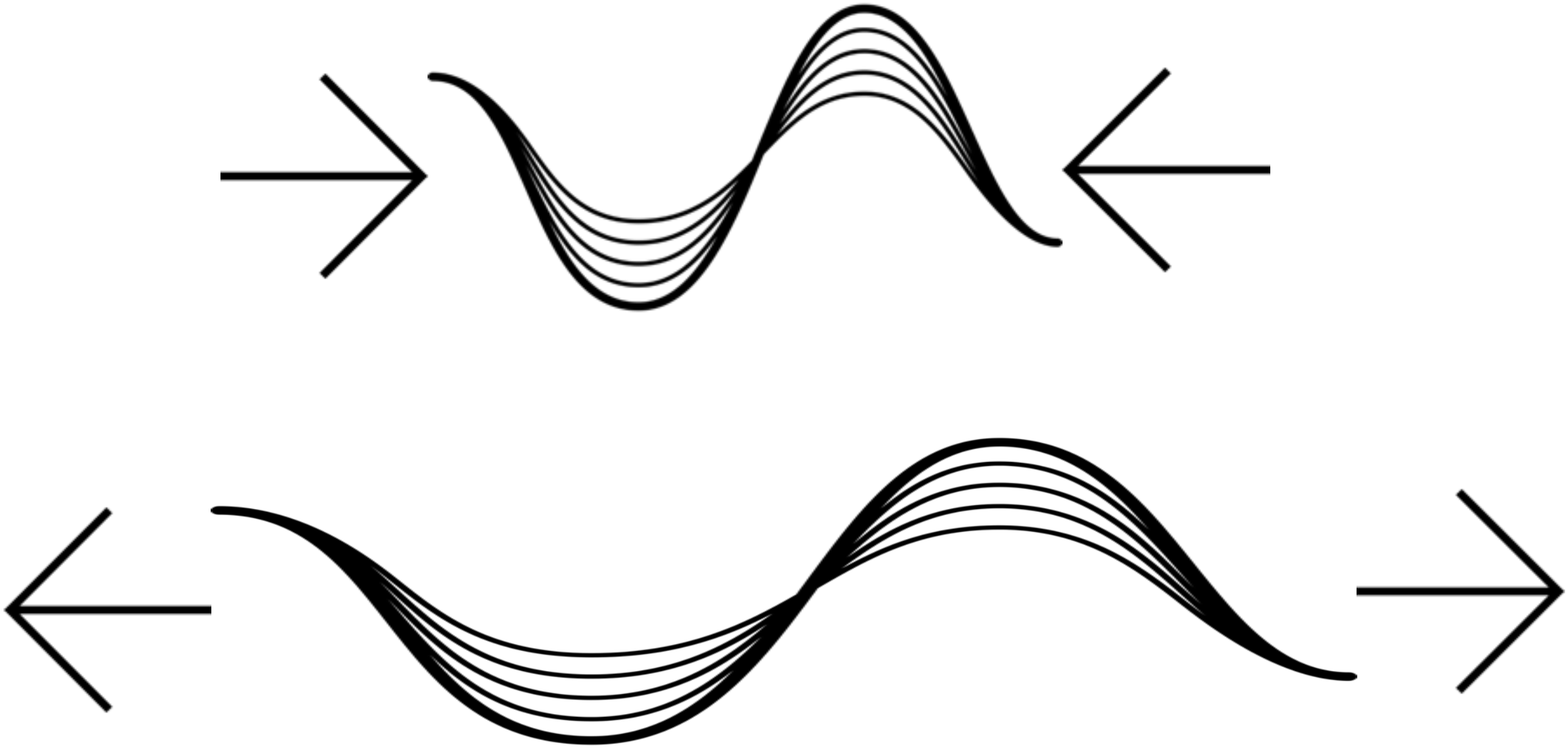


880 Hz

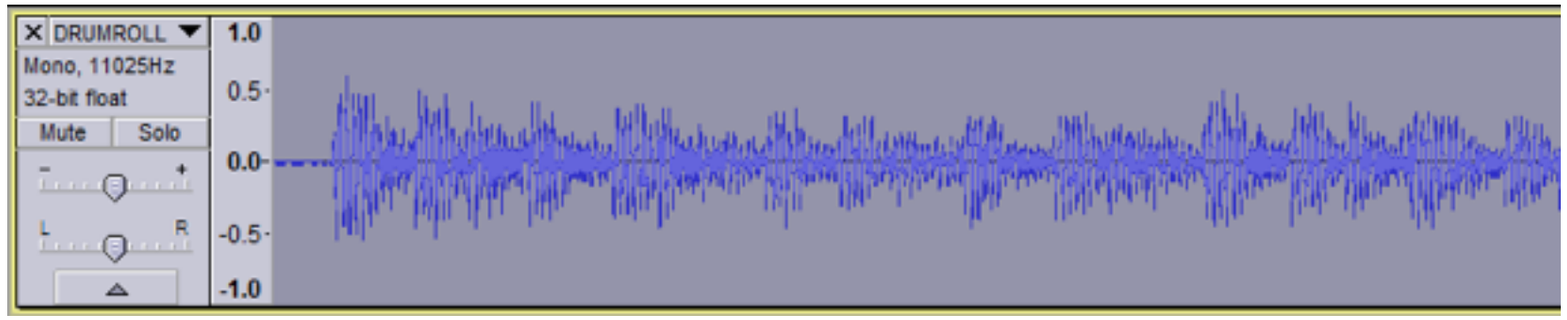
Higher Frequency

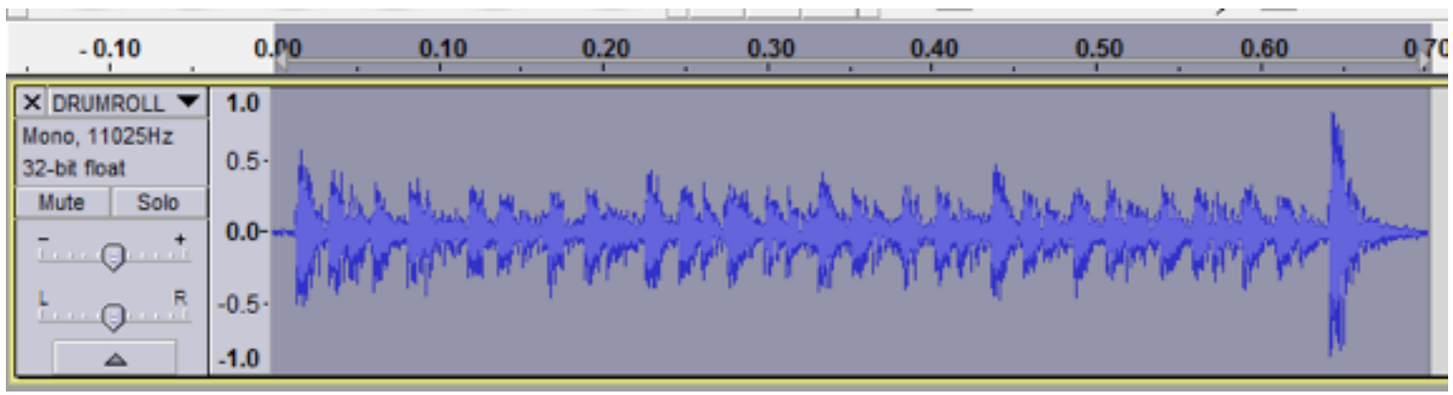


X-Axis Modulation

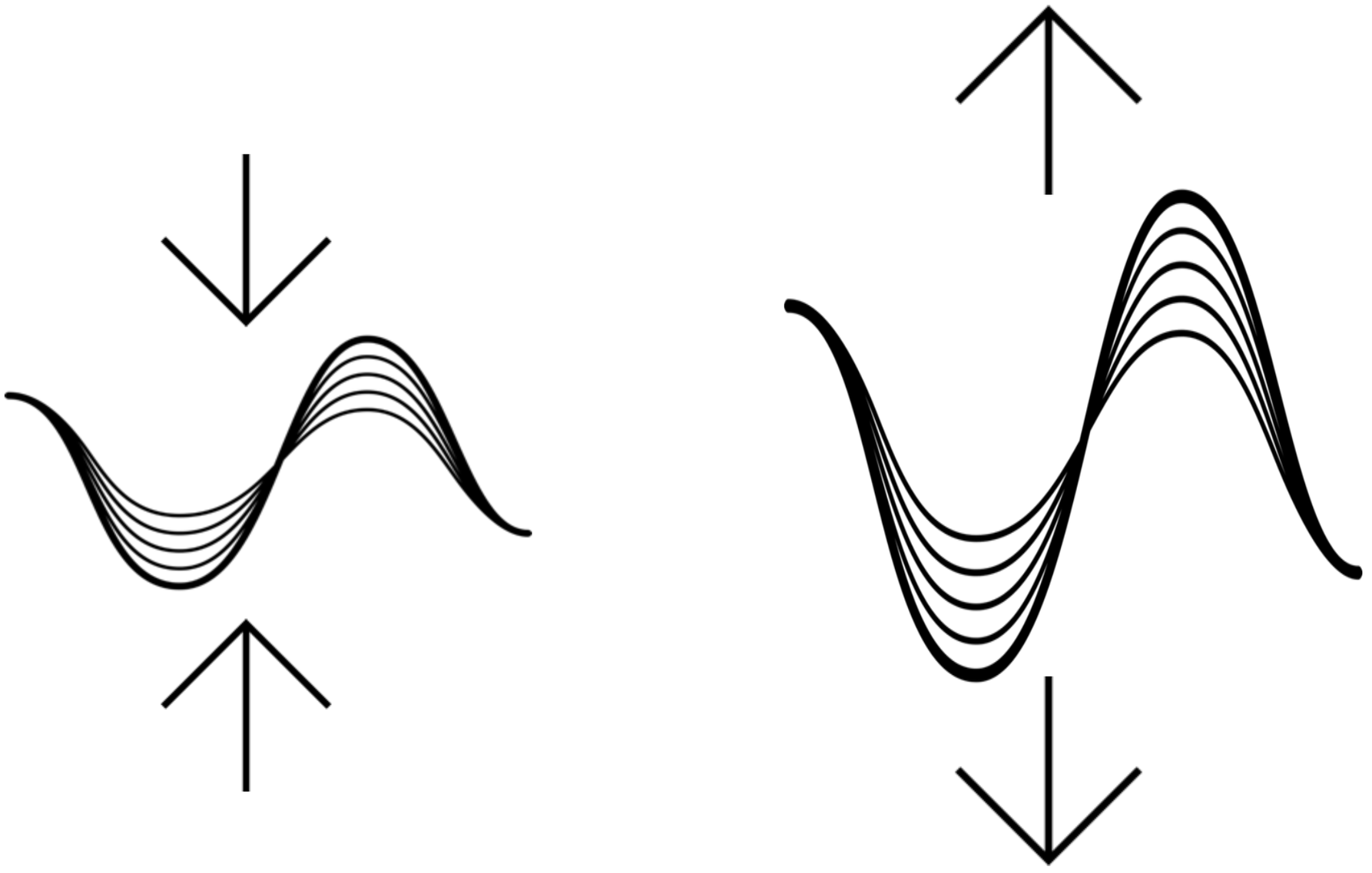


Example


DRUMROLL
Mono, 11025Hz
32-bit float
Mute
Solo
L
R
1.0
0.5
0.0
-0.5
-1.0

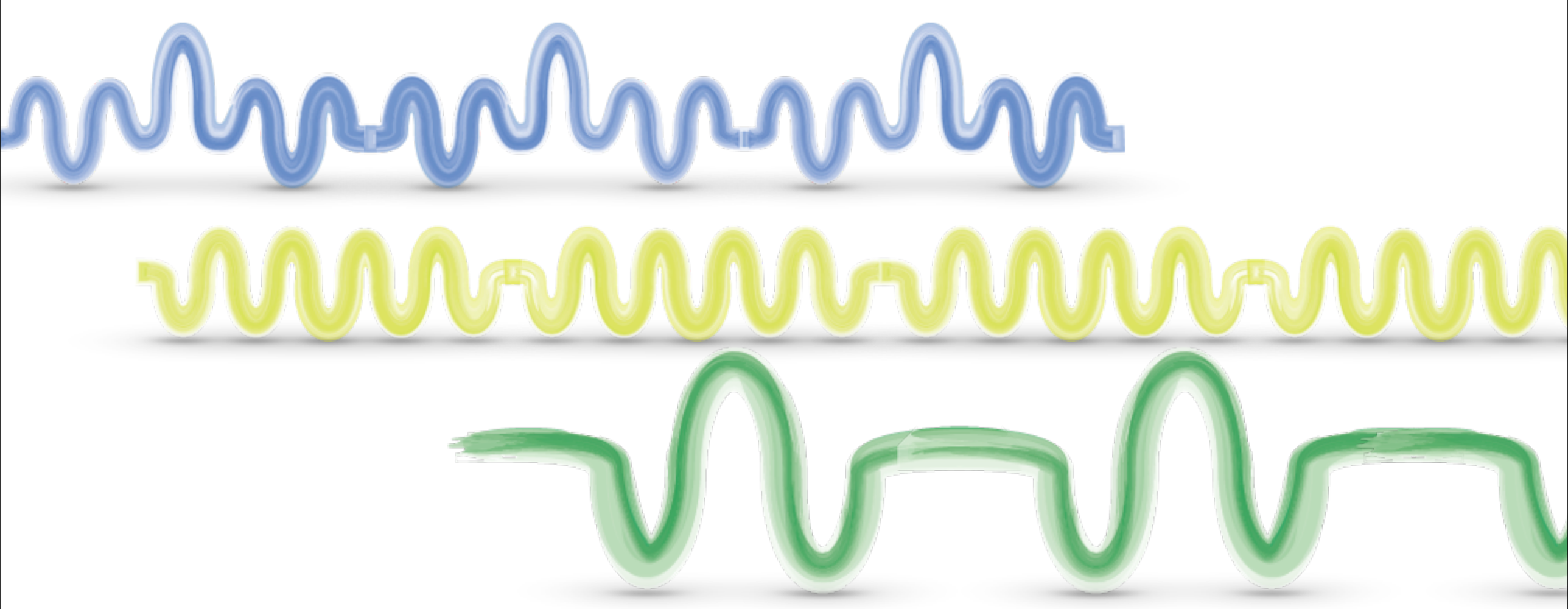

- 0.10
0.00
0.10
0.20
0.30
0.40
0.50
0.60
DRUMROLL
Mono, 11025Hz
32-bit float
Mute
Solo
L
R
1.0
0.5
0.0
-0.5
-1.0

Y-Axis Amplitude Modulation

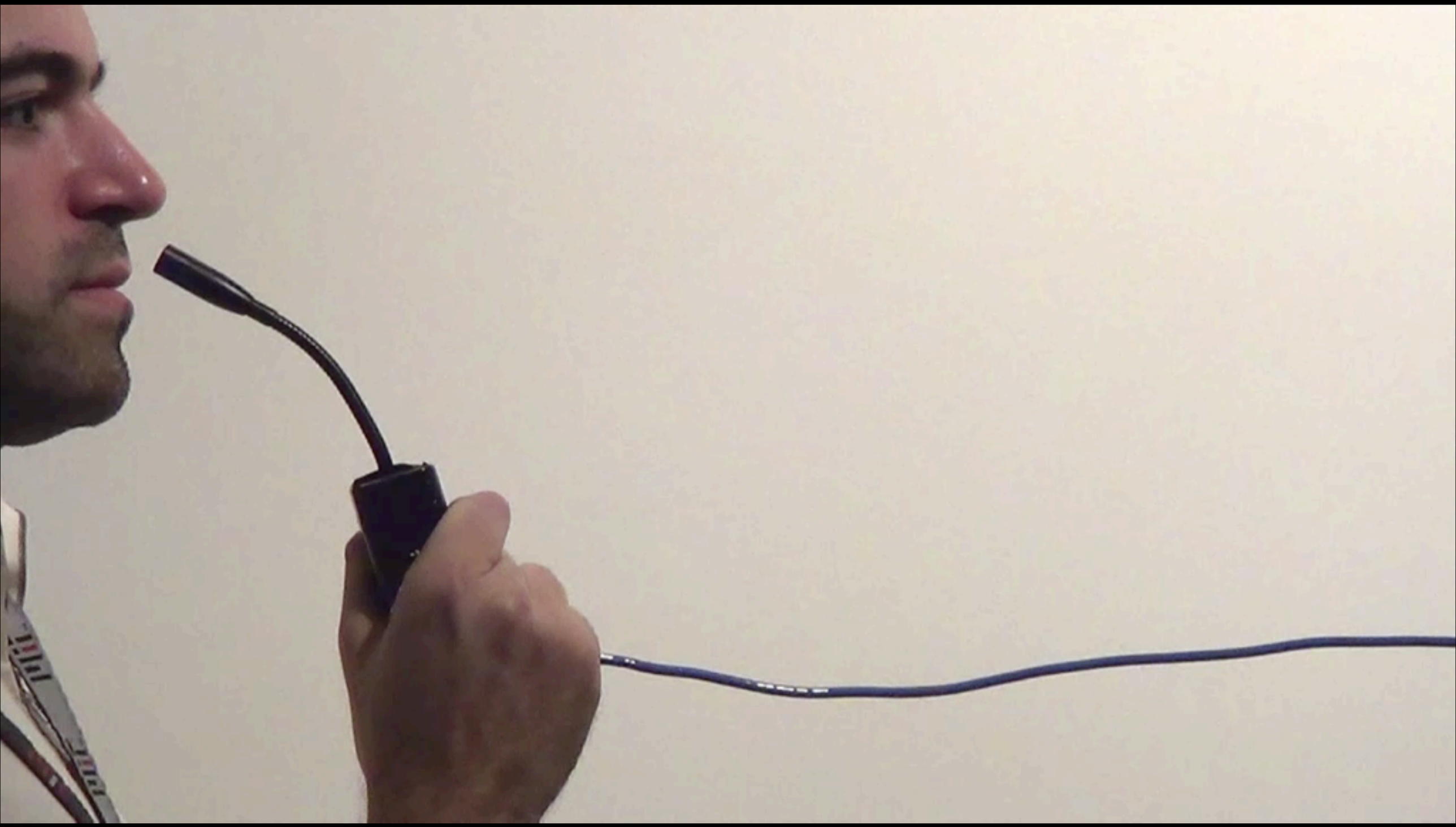


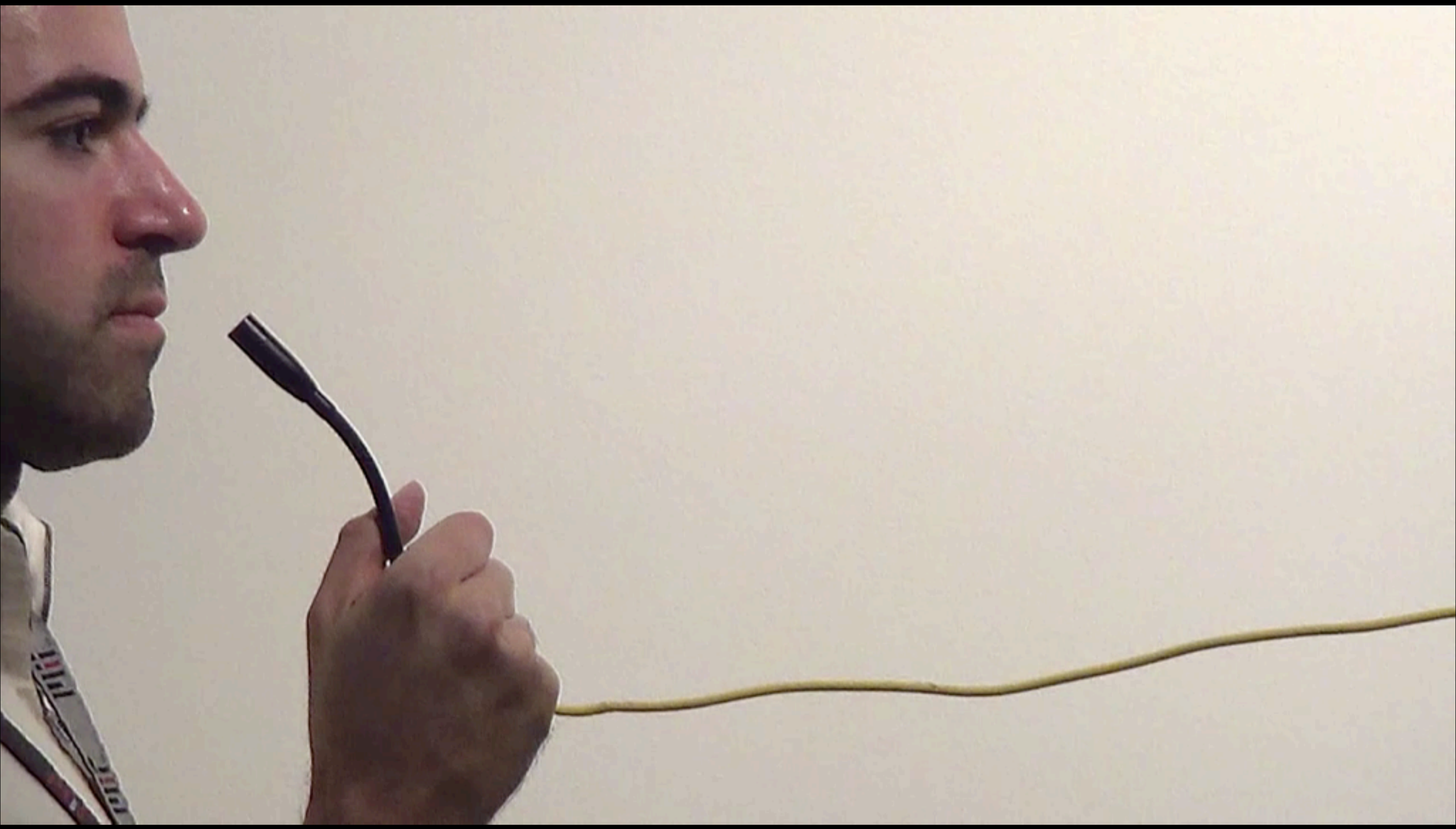
Concept

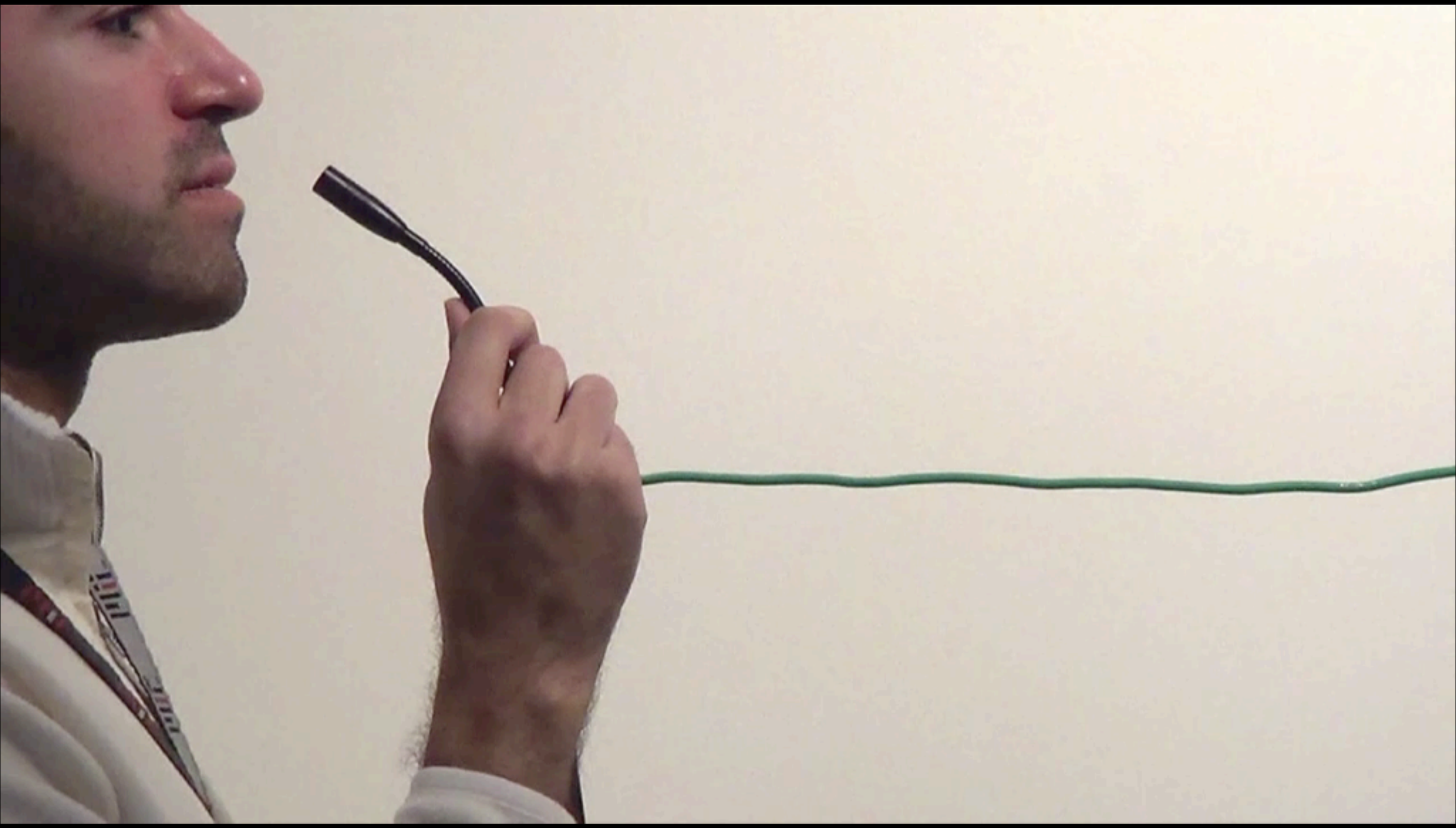
Sound <—> Shape



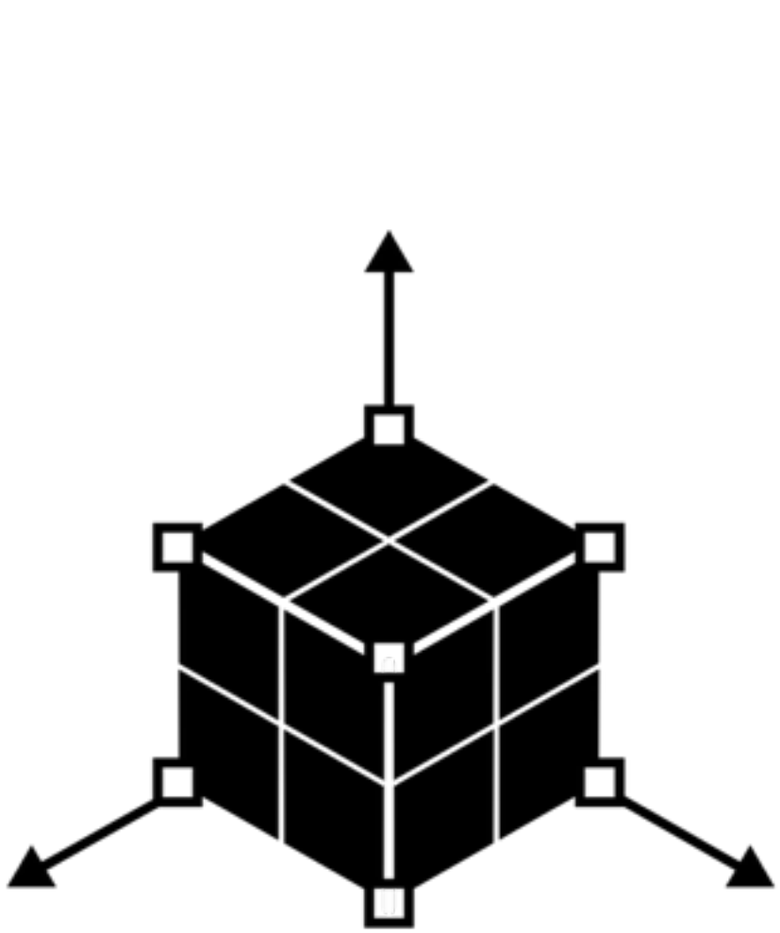
Usage/Input

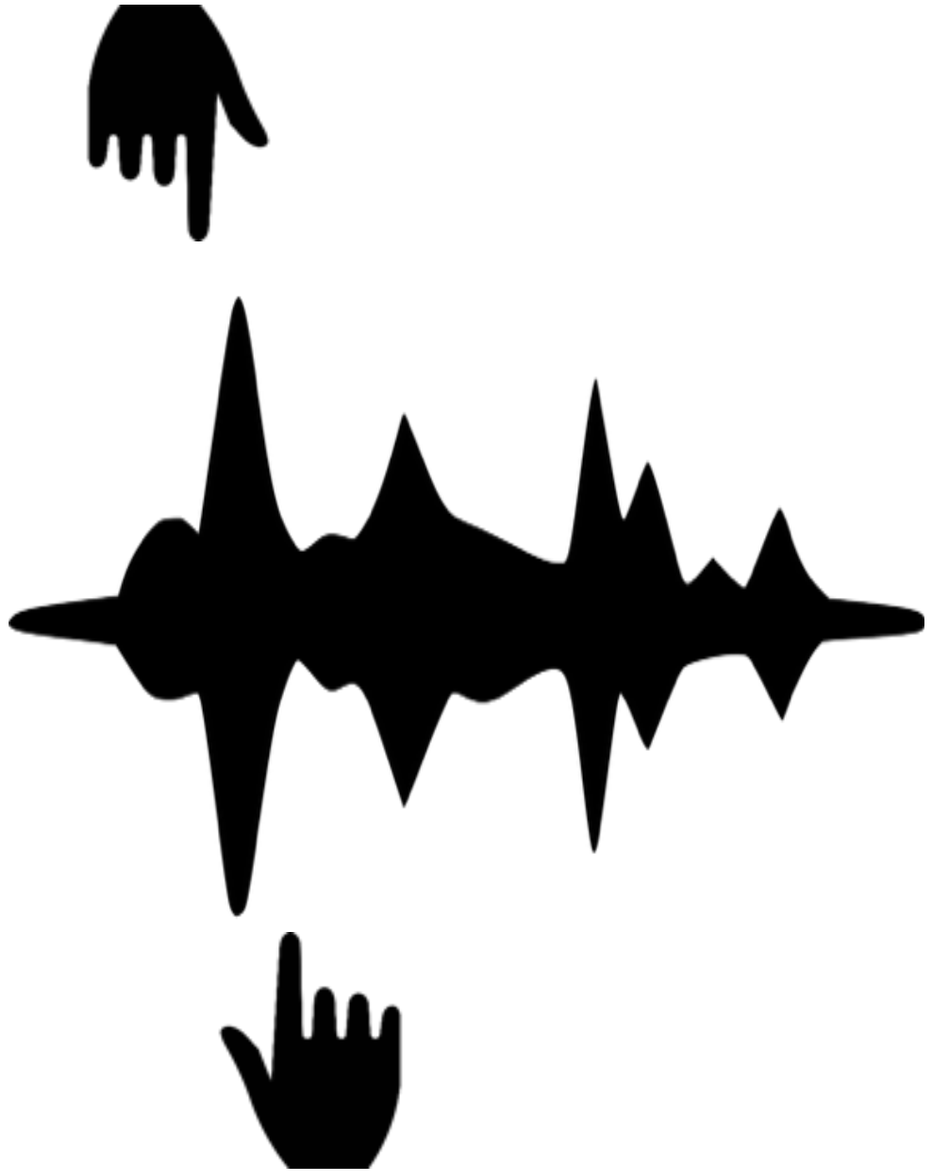






Usage/Manipulation



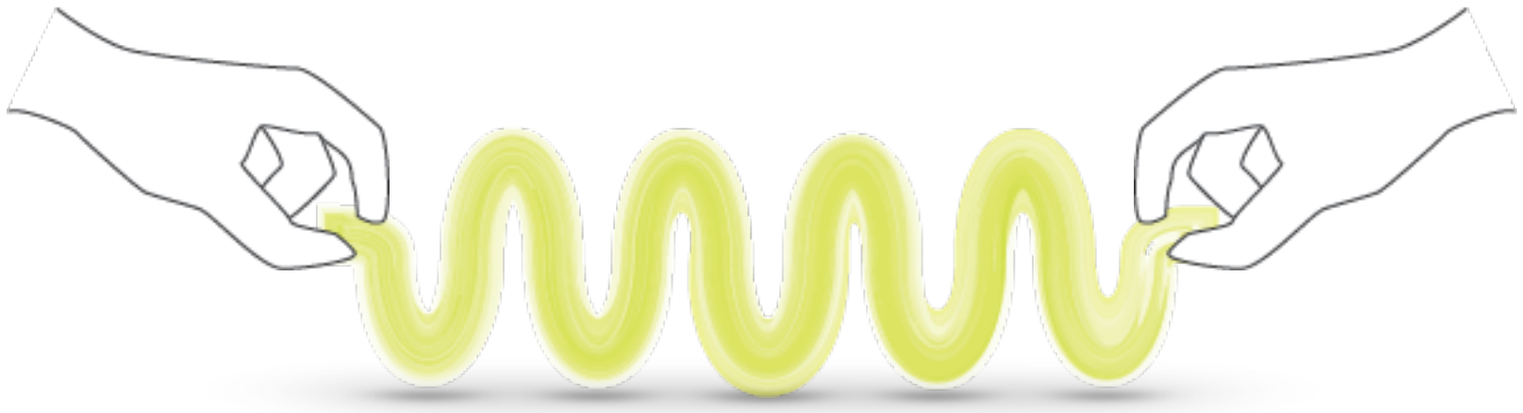


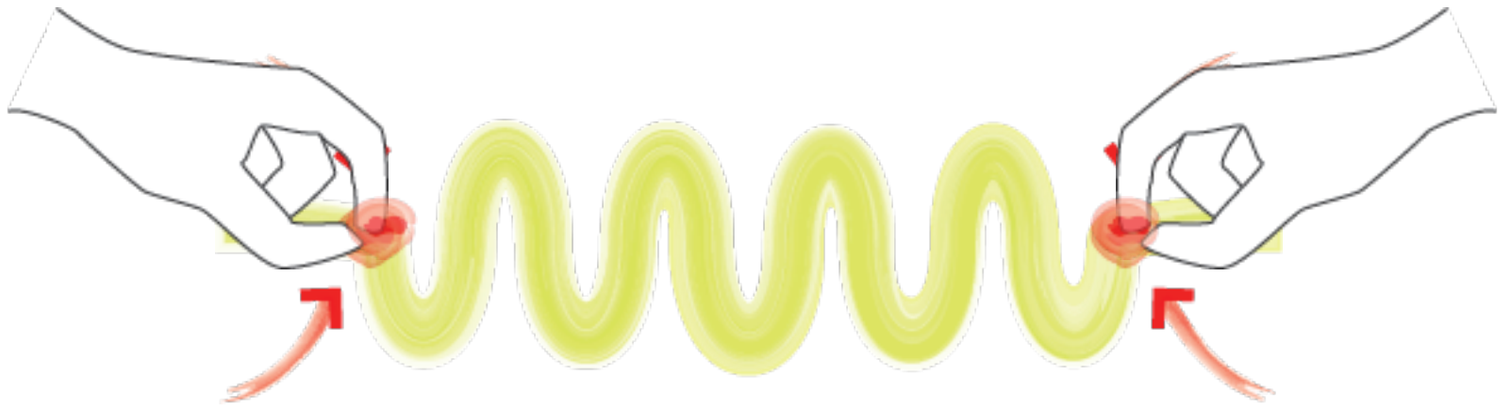
Vocabulary

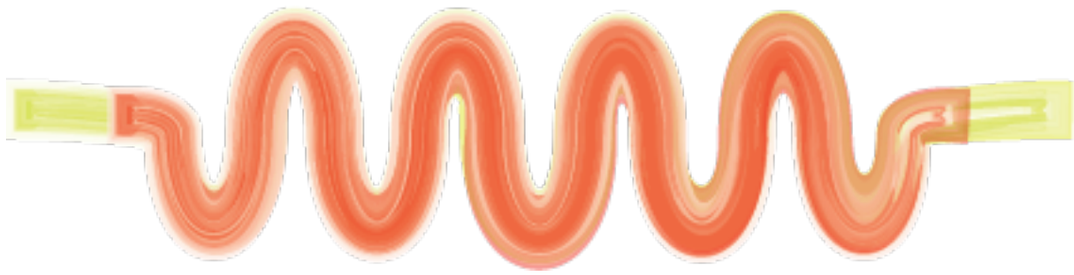
Pro Tools® 11

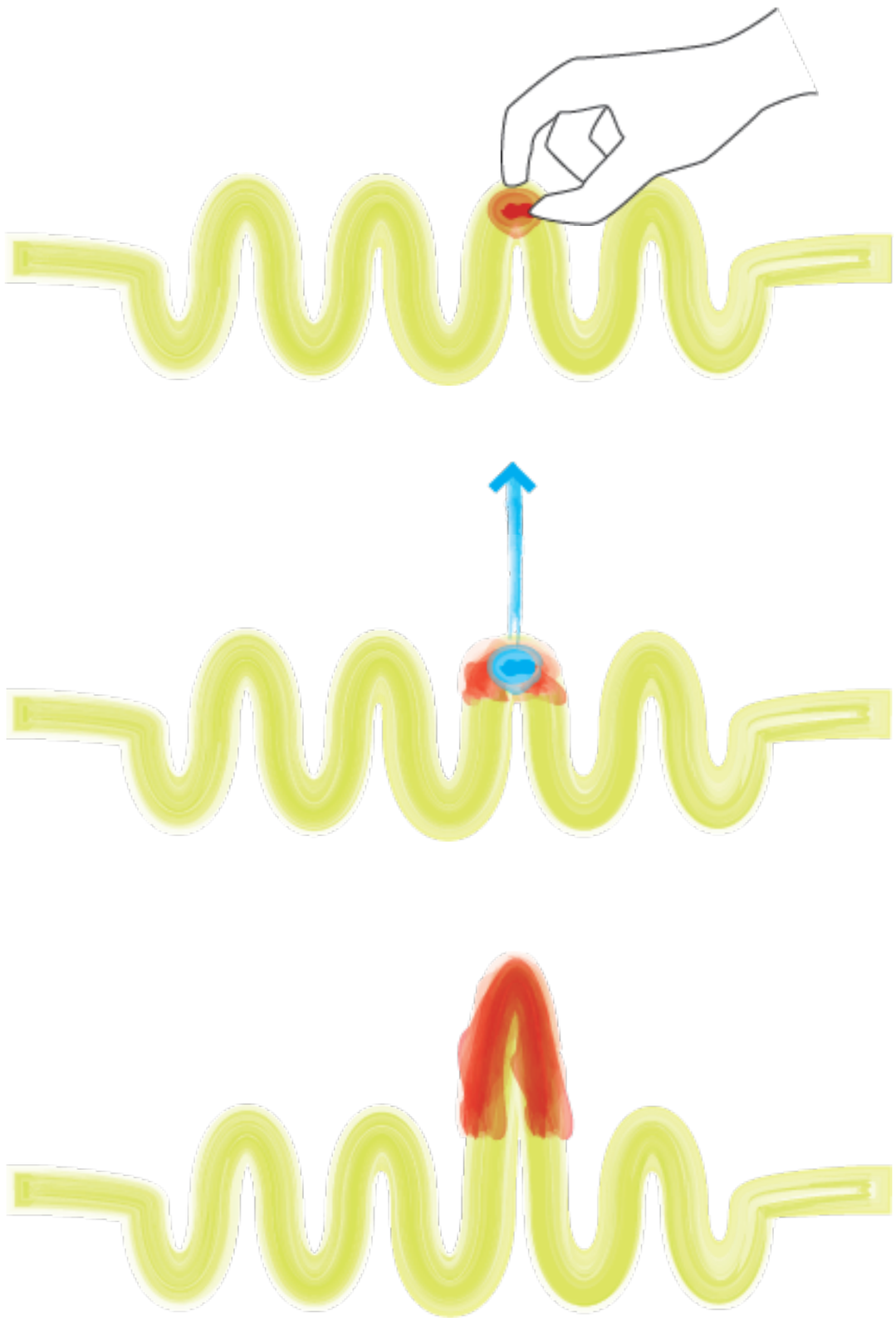
Pro Tools File Edit View Track Clip Event AudioSuite Options Setup Window Marketplace Help
Mon 8:05 PM
Edit: SuperDuper SG
93| 2| 604
TRACKS
Kick In.01
Kick Out.01
Snr Top.01
Snr Btm.01
Hat.01
Room.01
Motown.01
New Bass
soloMain.16
EP.01
Ld Vox.01
LD Vox 2.01
GROUPS
Drums (vDrums)
Gtr edit
bass edit
bgv edit
All tracking group
Solo
Solo Digger
Track
Preset
Auto
New Bass
Pro Compressor
BYPASS
COMPARE
SAFE
DSP
INPUT
THRESHOLD
RATIO
OUTPUT
KNEE
ATTACK
RELEASE
DEPTH
DRY MIX
SIDECHAIN
SOURCE
MAKEUP
COMPRESSOR
4020-E
HF
IN
HMF
OUT
LMF
FILTERS
LF
IN
OUT
mDSP

Selection

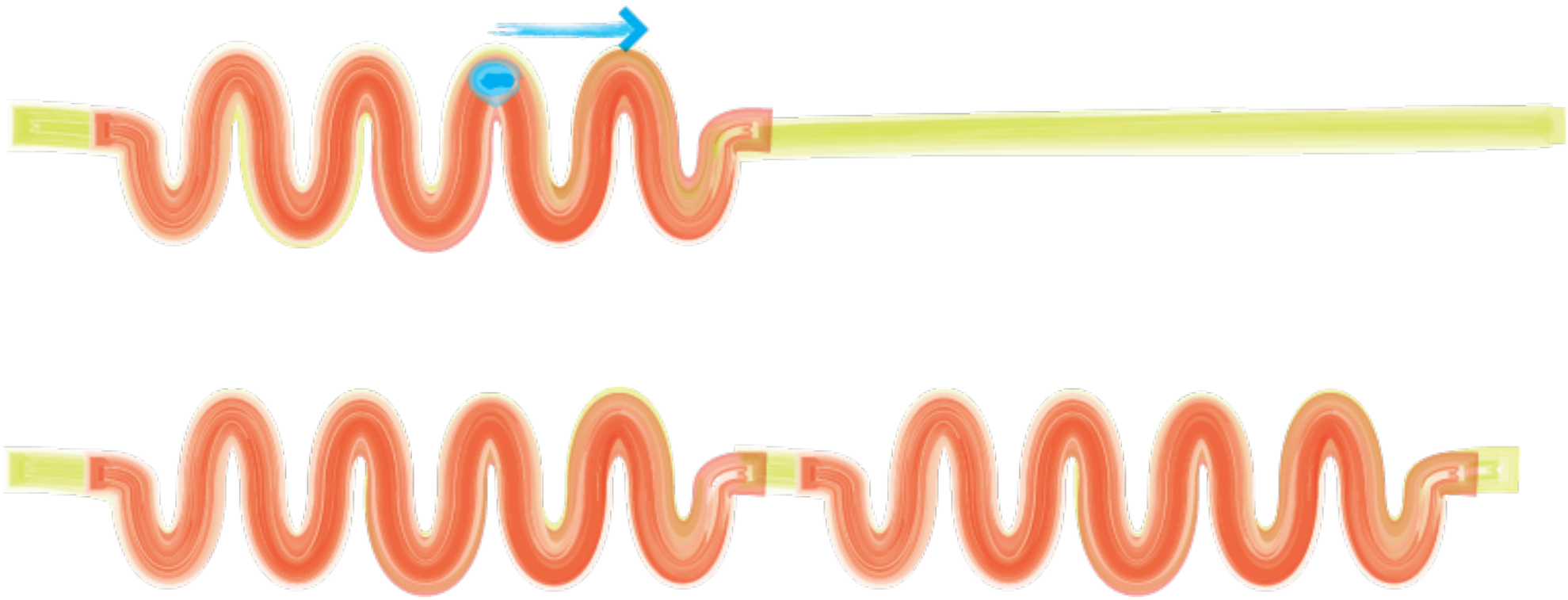






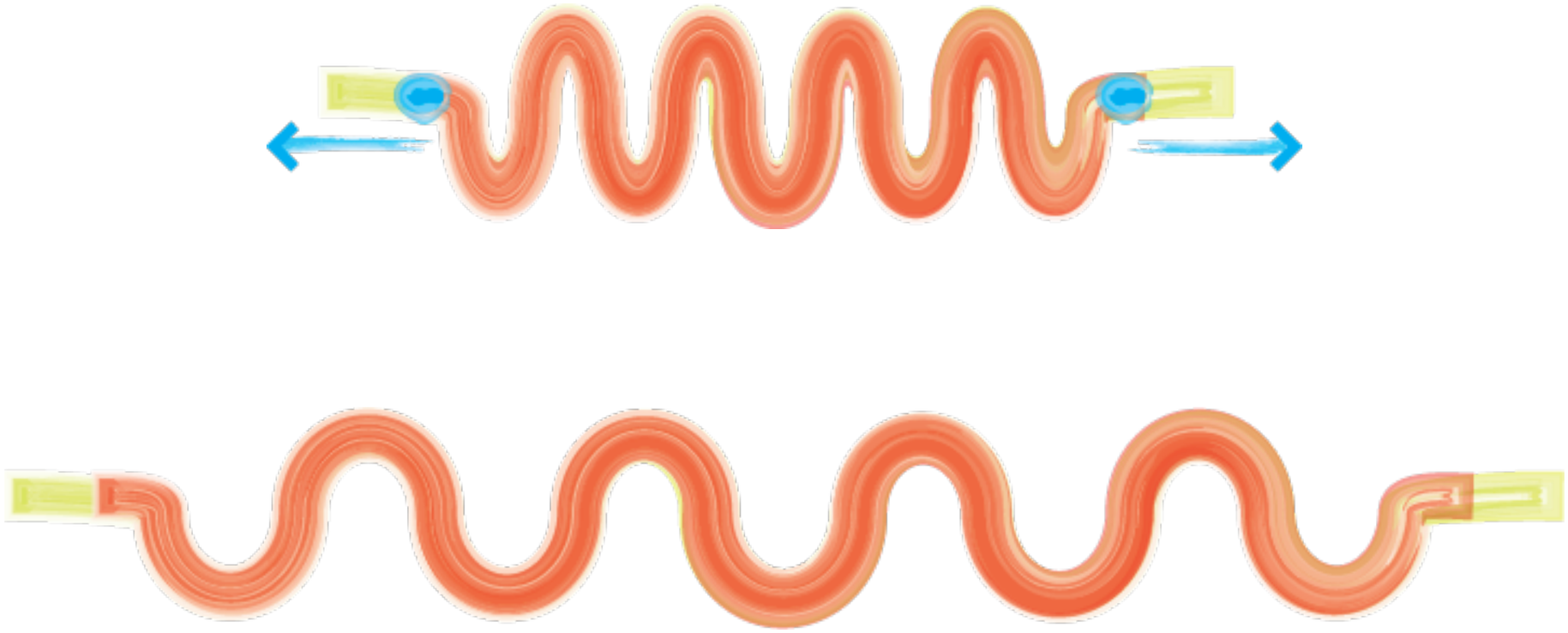


Copy Paste



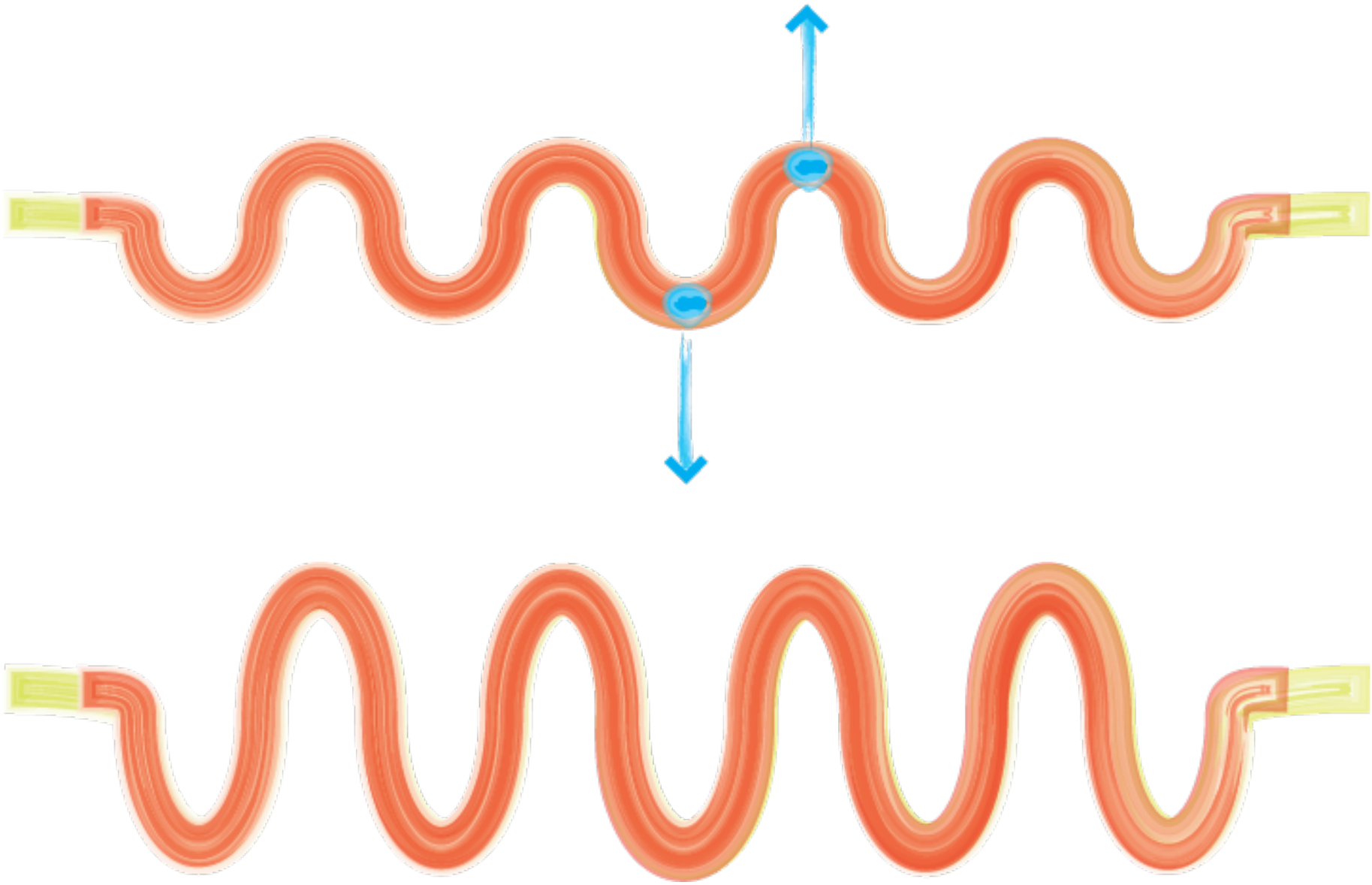
Copy Paste

Pitch Shift



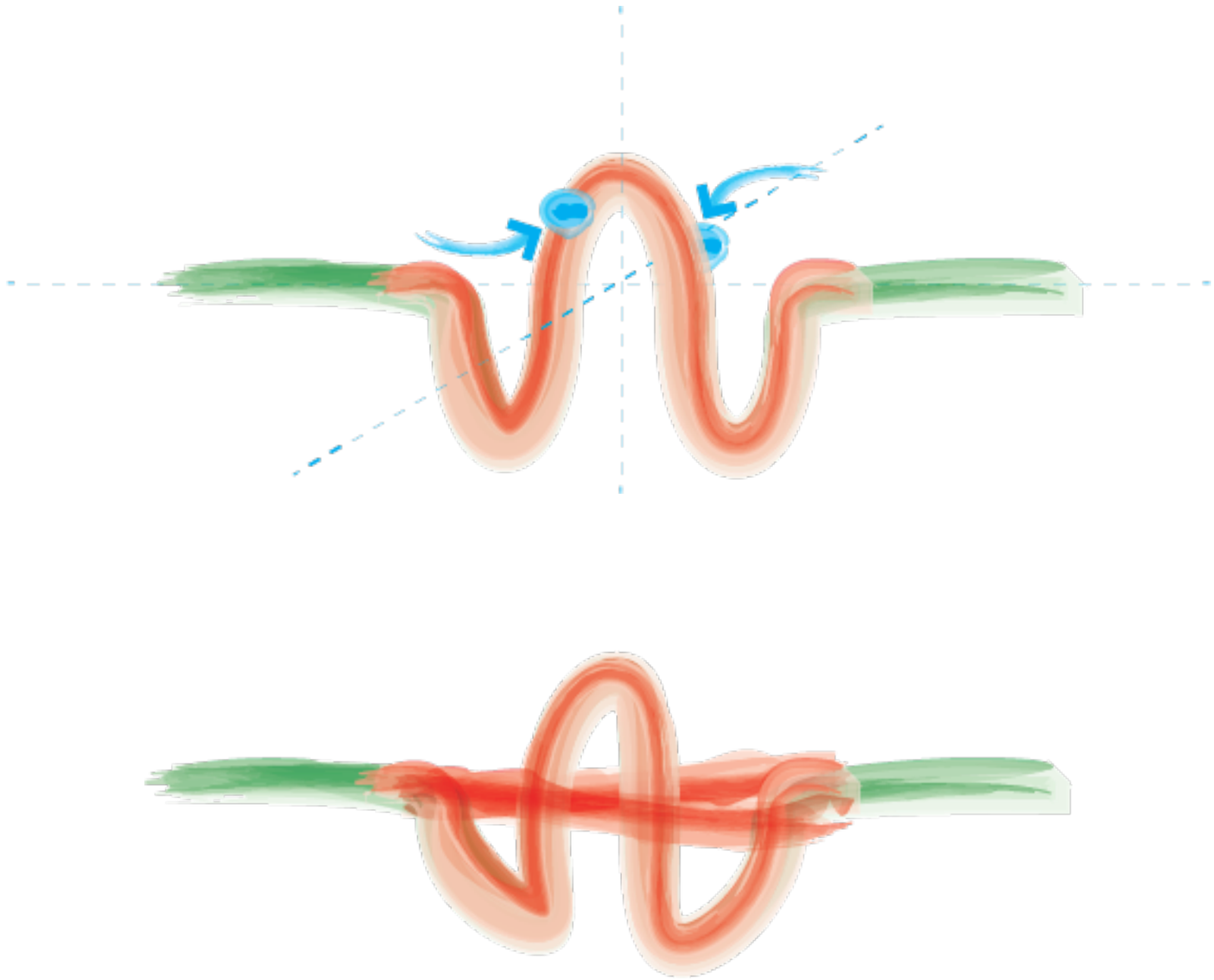
Pitch Shift

Amplitude Scaling



Amplitude Scaling

Time Reversal



Future Work

- What are other physical interactions of sound that can be intuitively mapped ?

    - Twisting as a form of mixing or convolution?
    - Addition / subtraction by joining segments?
    - Physical co-location of RadicalSound to define interplay?

Thank You