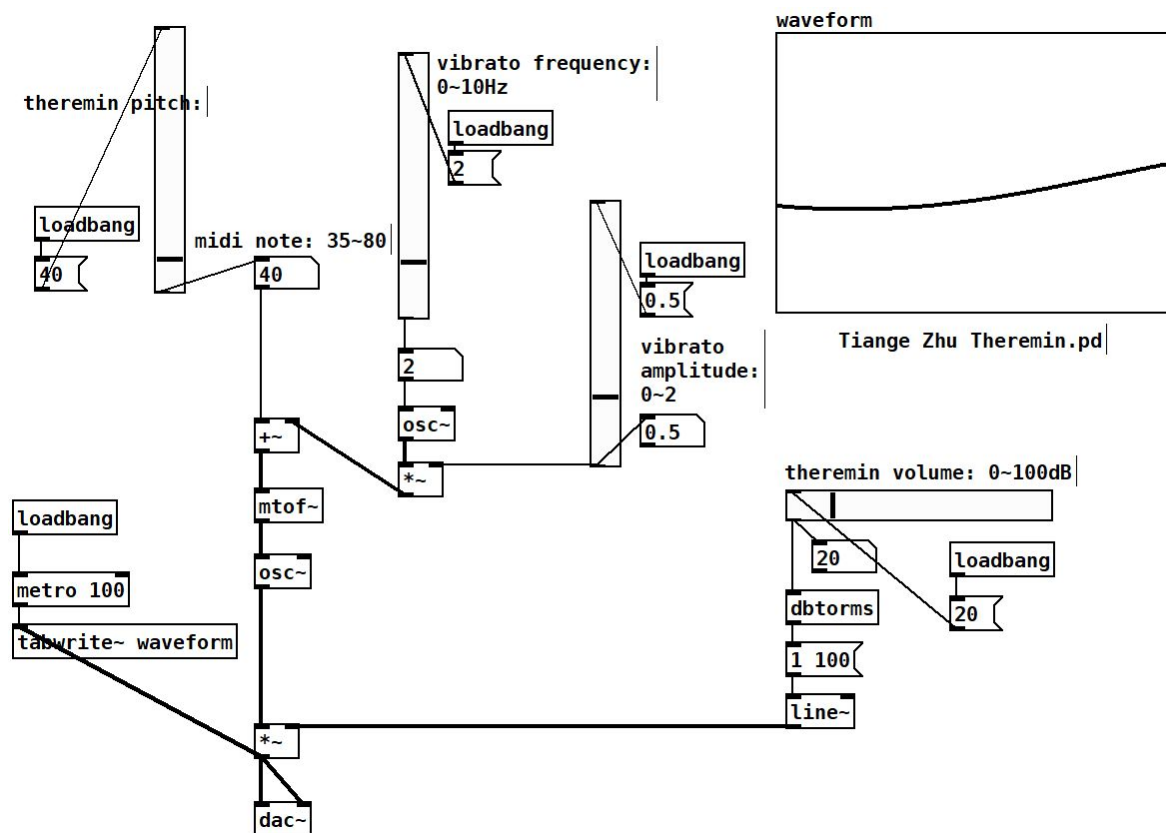


# Theremin

Tiange Zhu



The concept of theremin is to modulate one oscillator with another.

Thus, I created two oscillators.

One is the modulator(vibrato), it can be simply controlled with two sliders: frequency control (0~10Hz), and amplitude control. Amplitude controls how strong the modulation is. I initialized its frequency to 2Hz and amplitude to 0.5 out of 2.

Another oscillator is the main oscillator. Its pitch varies from midi number 35 to 80, corresponding to 61.735Hz to 783.99Hz (source: [newt.phys.unsw.edu.au/jw/notes.html](http://newt.phys.unsw.edu.au/jw/notes.html)). I used [mtof~] to transfer midi number into audio signal with its corresponding frequency. I initialized the midi number to 40.

The waveform is shown in the theremin GUI. I created an array called waveform and used [tabplay~] to show the signal.

I set the initial volume to 20dB so it won't hurt anyone's ear.