

Final Writeup

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This project is a reimagining of Stockhausen's *Stimmung* for six cosine oscillators. Each voice is tuned justly to one of six notes sung in Stockhausen's *Stimmung*. When the playback is initialised, each voice is started on an independent, random, "trigger". When a voice is triggered, it is given a new volume and a new "vibrato" frequency (note: this is not true pitch vibrato, but is a parameter that slightly modulates volume above and below a given center to mimic the natural unsteadiness of a voice). Then, the voice's parameters slowly ramp from old parameters to the new ones. This ramp duration is set at 2 seconds. The duration between triggers is randomised from zero to five seconds. This gives the illusion of some stasis every couple of seconds, but constantly shifting voices. Note that the frequency of the pitches never changes; the only musical content comes from the shift in tone due to the manipulation of the volumes of particular overtones. Finally, a linear ramp envelope is added to automate a gradual fade to silence and to give the piece a duration.