



## ONE-TO-ONE (Kinetic Sound Installation)

**Topic:** Music

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### Abstract

The installation *One-To-One* consists of two movable speakers that are placed at head height on stands. The appearance of the speakers is very technical, all mechanical and electronic elements are candidly shown without any covers. Nevertheless, we easily tend to anthropomorphise these speakers and regard them as beings that can move their heads, gaze in different directions, and express themselves acoustically. The Installation *One-To-One* addresses this irrational appreciation: the two speakers face each other and seem to be engaged in a discussion.

The sound production is entirely computer-generated: all sound synthesis parameters are controlled algorithmically, partly by random processes, partly by several deterministic cyclic patterns that run at different speeds. The resulting sounds are abstract, yet they resemble spoken utterances in a very peculiar way. All sounds are combined with a movement to emphasise in a simple but effective way the intended humanisation of the speakers.

```

~speakerLocked[] = 1;
~moveSpeaker.value(i, 0, 75, 0.5, 2);
0.5.wait;
while(
  {time < dur},
  {
    azi = (azi + aziIncrement)%360;
    ele = rrand(0,50);
    ~moveSpeaker.value(i, (azi-180), ele, 1.4, 2);
    time = time + 1.4;
    1.4.wait;
  });
~moveSpeaker.value(i, 0, -90.0, 1.0, 2);
~speakerLocked[] = 0;
}.fork;

{
  var dur = 1.0;
  var pause = 2.5;
  var i = 0;
  var offset, midinote, ambitus, attack, release;

  while( { pause > 0.01}, {
    offset = ~randomFunction.value(10, 0.001, 0.05);
    midinote = ~randomFunction.value(10, 45, 120);
    ambitus = ~randomFunction.value(10, 0, 2.0);
    attack = ~randomFunction.value(10, 0.0001, 0.02);
    release = ~randomFunction.value(10, 0.001, 0.05);

    i = 0;
    while( { i < dur }, {
      Synth( instr1, [
        \out, channel,
        \midinote, midinote[i]+ambitus[i].rand,
        \amp, 0.5, \env, Env([0.0001,1,0.0001],[attack[i], release

```

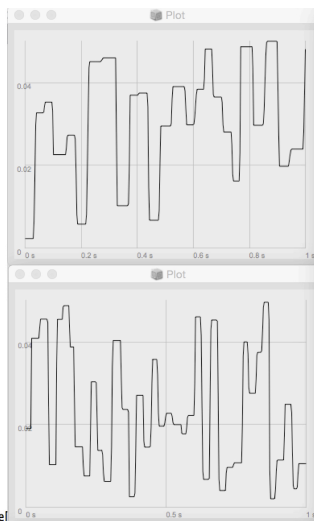


Fig. 1: Screenshot depicting stochastic control functions

Fig. 2: Kinetic speaker objects.

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**Key words:** sound installation, sound synthesis, kinetic installation, algorithmic composition.