

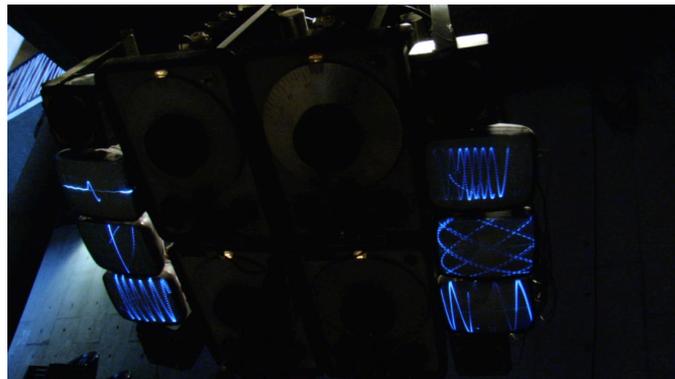
## Abstract

LaMe.2H it's a work-in-progress piece that was started in the year 2009 as part of the works of the first multimedia lab in Universidad de Chile, giving name to the project LaMe as the contraction of the words Laboratorio and Media. Project 2H is named after "two hemispheres", where there are two separate parts not necessarily opponent that explore subject matters such as Hi-Tech and Low-Tech, regionalism and globalization, functionality and disfunctionality, expectator and creator, product of consume and art work, control object and control subject. LaMe.2H represents the idea of machine as an organism in symbiotic connection with the user, where an organic link is established as a sort of umbilical cord and the user is immersed in a apparent technological media, interacting through tactile, auditory, visual interface giving a perceived control experience.



## Description

LaMe.2H is conceived as a sound generator with it's own visualization displayed over an immersive and massive sculptural structure. LaMe.2H makes complex sounds from a source of pure tones provided by four tube valve signal generators (old lab equipment HP200), the user controls the overlapping and sequencing of its signal sources, forming sounds and visuals in organic-like forms. The user experience interaction with tactile, visual, auditory and psychoacoustic perception bringing him to recognize chaos as a natural pattern with its inherent relation of the organic matter to the synthetic objects.

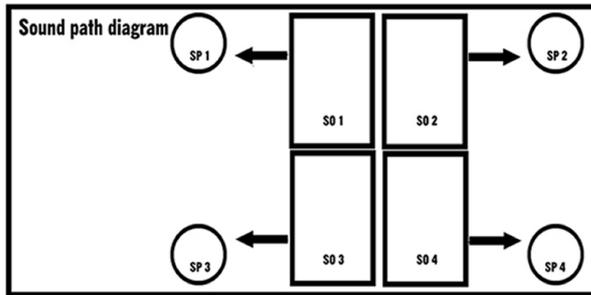
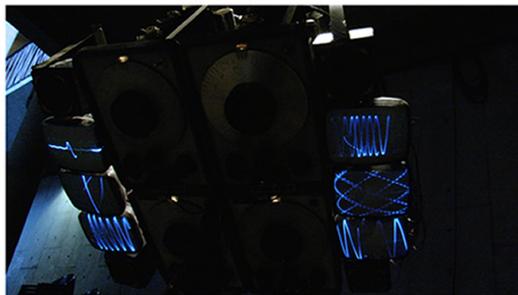
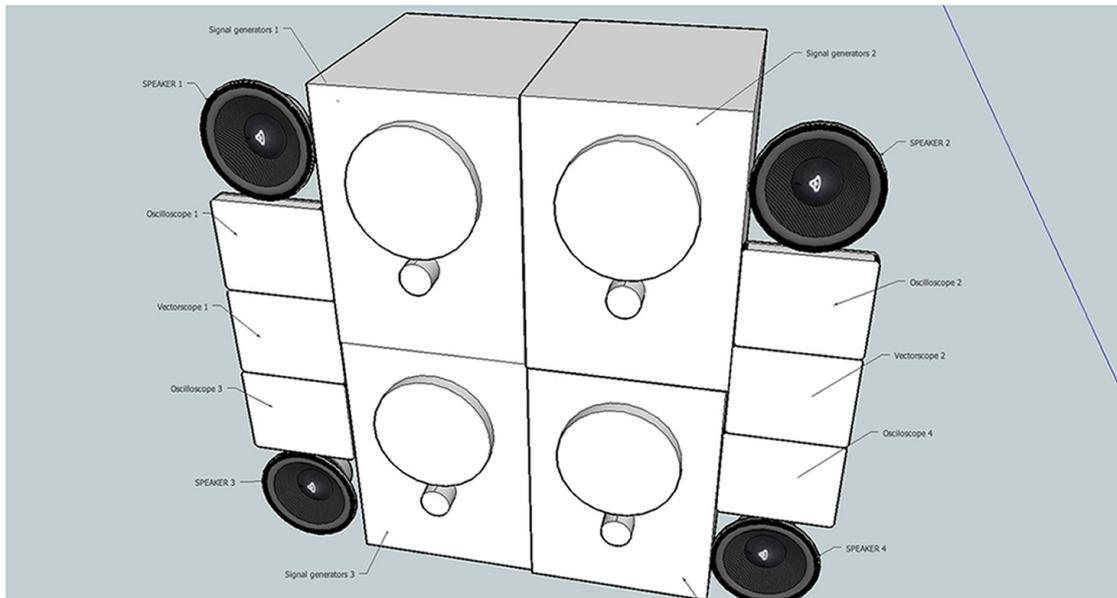


LaMe.2H is composed of two hemispheres each constructed from two signal generators spanning the all the audio frequency range, two dedicated CRT oscilloscopes and a third CRT x-y oscilloscope or vectorscope as shown in the diagram 1. Each of the oscillator signals go through a gate stage triggered by a step sequencer whose rate and pattern can be controlled by the user. Apart from the pulsing tones, clicking-noise are produced by the relays gating the signals. Lissajous patterns can be obtained in the vectorscope when two gates open at the same time. The structure holding up everything hangs from a single steel cable over a reclining beach chair from where the user can interact with the installation. Amplification stage and sequencing devices hang about two meters above the central structure that holds oscillators, CRT displays, and speakers channelling each sound source, connecting with approximately 200m of black wiring giving a counter-efficient yet striking design effect .



Even though LaMe.2H has been shown in its developing phase, never being installed with all of its required elements such as room amplification, improved HID and adequate development of ergonomics. The motivation for exhibiting this piece as part of CTM Festival (Un Tune) comes from the opportunity for the first time in 5 years to finish this work with the space and resources it deserves. This permanent exhibit would then have an appropriate space for its direct use by the spectator alongside live performances from their creators.

For performance purposes at the premiere LaMe.2H would have the additional support of four amplifiers, four oscilloscopes and two vectorscopes as shown in the diagram 2 and diagram 3, replicating the signals coming from LaMe.2H as they're heard and shown to whom is operating the machine.



**Signal Generator = SO**  
**Speaker = SP**  
**Oscilloscope = Osc**  
**Vectorscope = Vsc**

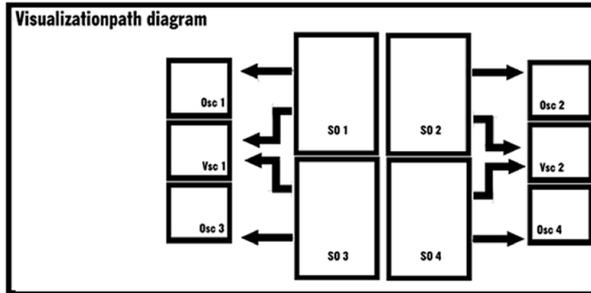


Diagram 1

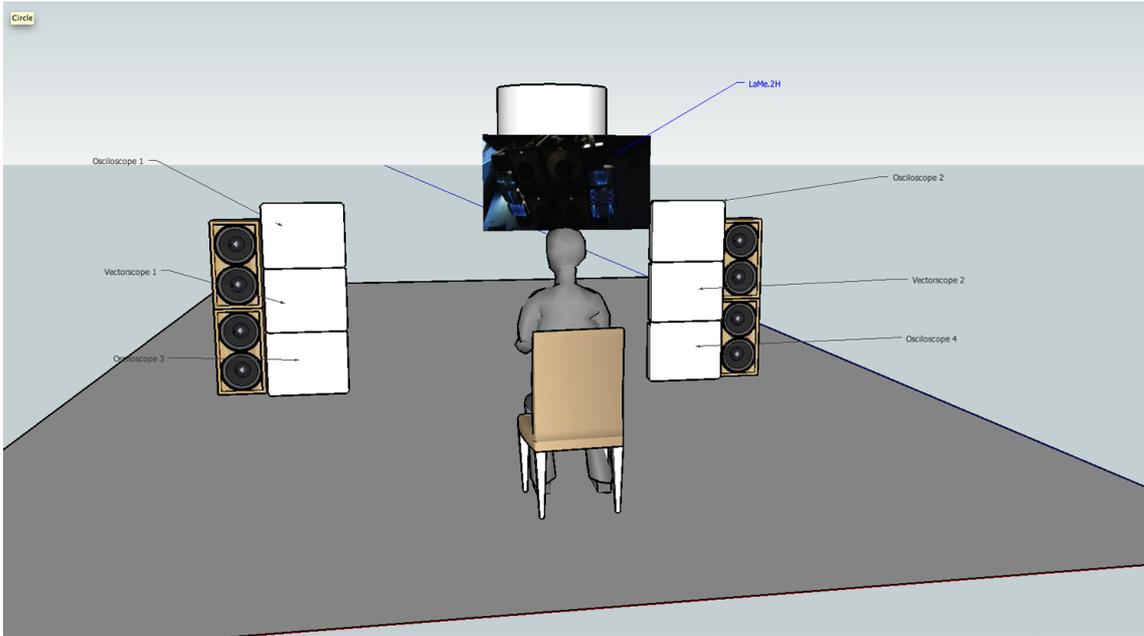


Diagram 2

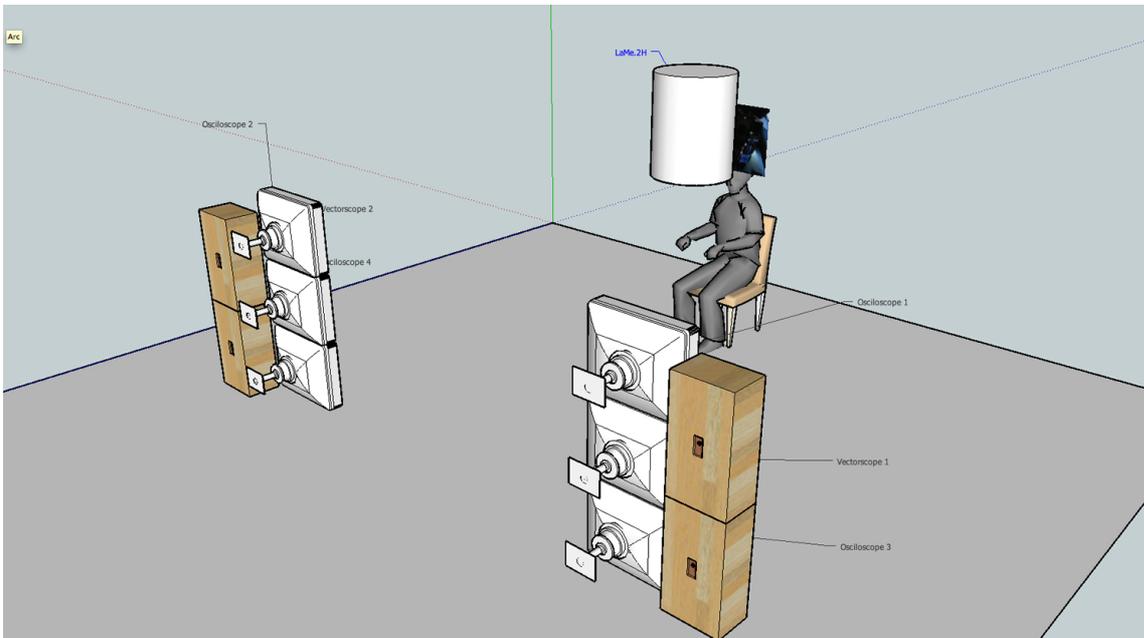


Diagram 3

## Collaborators

Nicolás Spencer / Project Manager  
 Francisco Oltra / Electronic Engineer  
 Nicolás Gravel / Neuroscientist