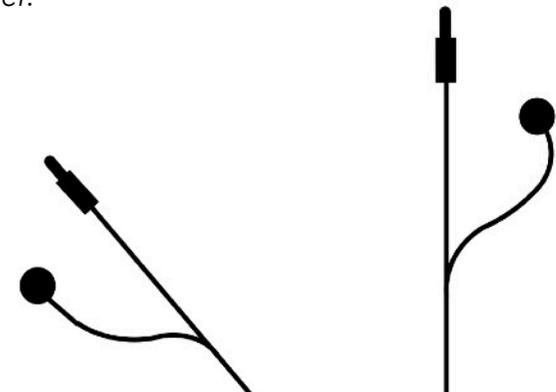




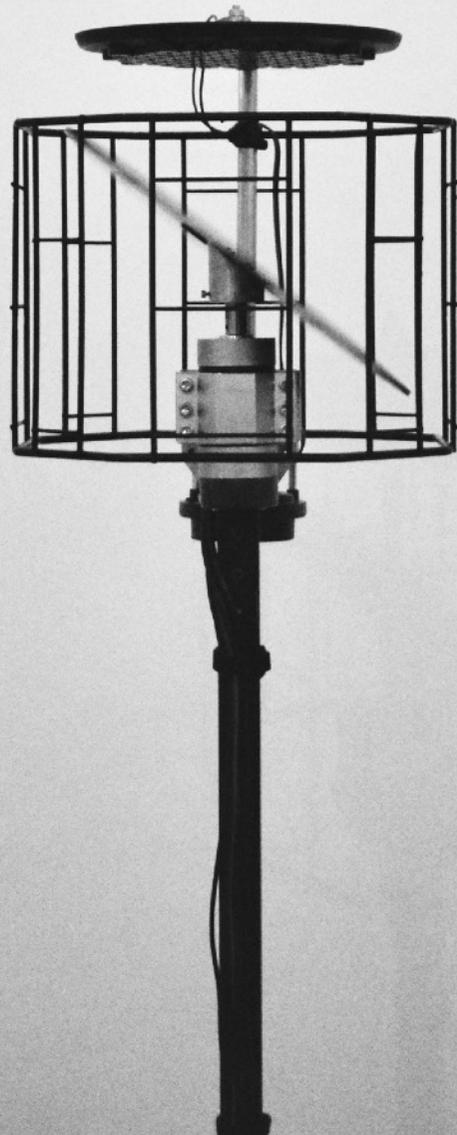
JOHANNES WERNICKE

Born 1991 in Brussels, grew up in Basel and lives in Vienna since 2014. He finished his bachelor in music and media art in the HKB (Bern University of Arts) and is currently studying in the master program Interface Cultures at the university of arts in Linz. Johannes Wernicke works as a Sounddesigner, media artist and developer for new musical instruments.

"Throughout my pursuit in sound I dedicated myself to finding new ways of creating electroacoustic music by combining digital sound-processing with physical acoustic phenomena resulting in various self made Instruments and sound installations, always aiming to convey a sense of magic to the observer."



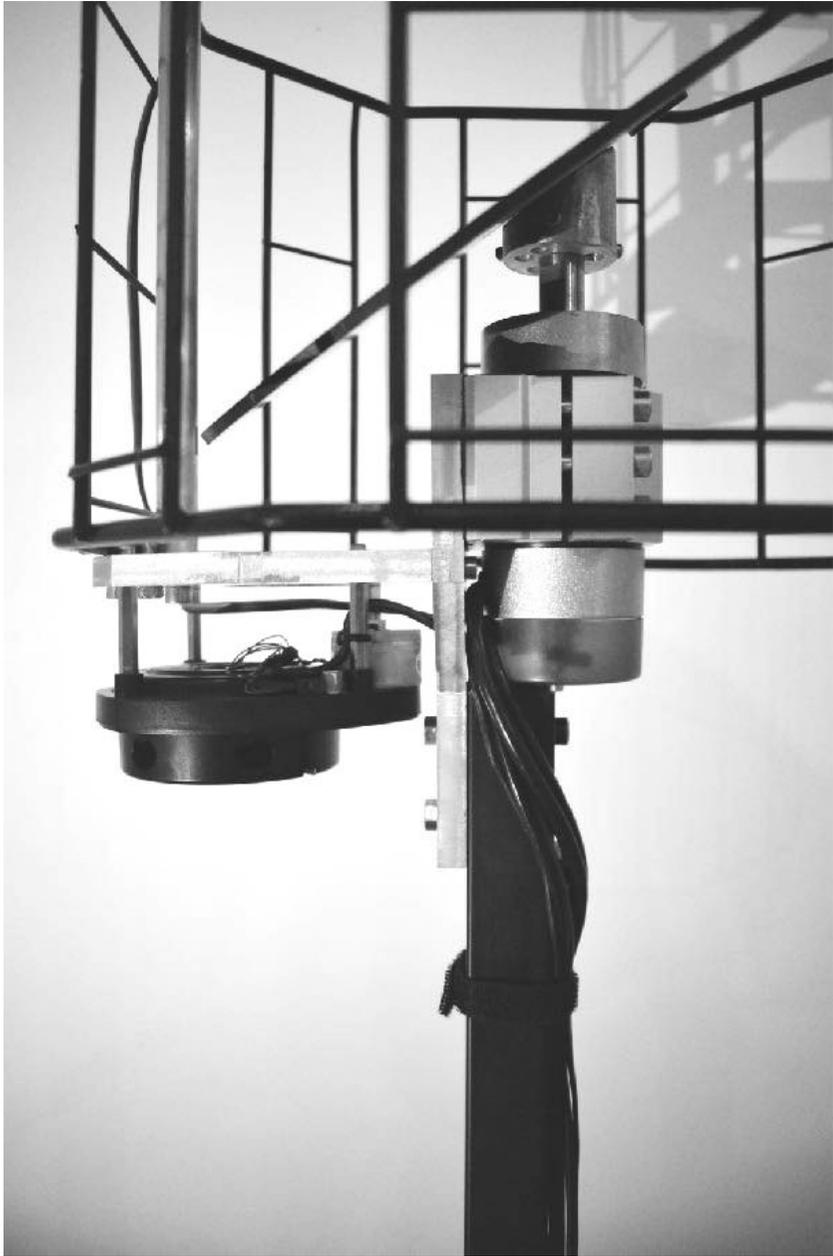
POLYUS



POLYUS exhibited
2017 at the *Ars
Electronica Festival*

POLYUS is a multidirectional speaker with the ability to create an unlimited amount of virtual sound sources at any points in space. Spectators get a truly immersive experience of being surrounded by a sonic environment. The sound sources can be moved using a touchscreen-Interface in which they are represented by coloured dots. When Polyus is used in open spaces, certain sounds will only be heard by observers located at specific areas, while observers standing at a different point will hear completely different sounds. This function could be used in public spaces as an acoustic warning or guidance system, eliminating the need of multiple fixed loudspeakers and with the advantage of being able to change the position of the virtual sound sources instantly to where they are needed. Polyus uses a directional speaker to play sounds which are then reflected by an oval plate spinning at high velocity, similar to a Leslie speaker.

The goal of the project is to develop a speaker which can create ambient sounds in public spaces. This system could be used in places like passages, subway stations, airports and hotels. It could also be used as an acoustic guidepost for the blind.



POL II



POL II is a multidirectional speaker which has the unique ability to place multiple virtual sound-sources at specific points in space. This function allows to create immersive surround sound environments using only one speaker unit. The system is completely stand-alone and can be programmed and operated wirelessly. Potential applications include 3D sound for (VR) gaming, sound environments in public space, sound effects in theme parks or as an acoustic guiding / warning device for the blind. The main advantage of this system is that sounds can be dynamically placed at any position eliminating the need of multiple fixed speakers and creating a wide range of possibilities. Being a single unit system, POLII is compact, flexible and simple to install by either placing it on a table or mounting it to the ceiling. Settings and calibration can be done via an app.



POL II exhibited at the Music Tech Fest in Stockholm





LUZI

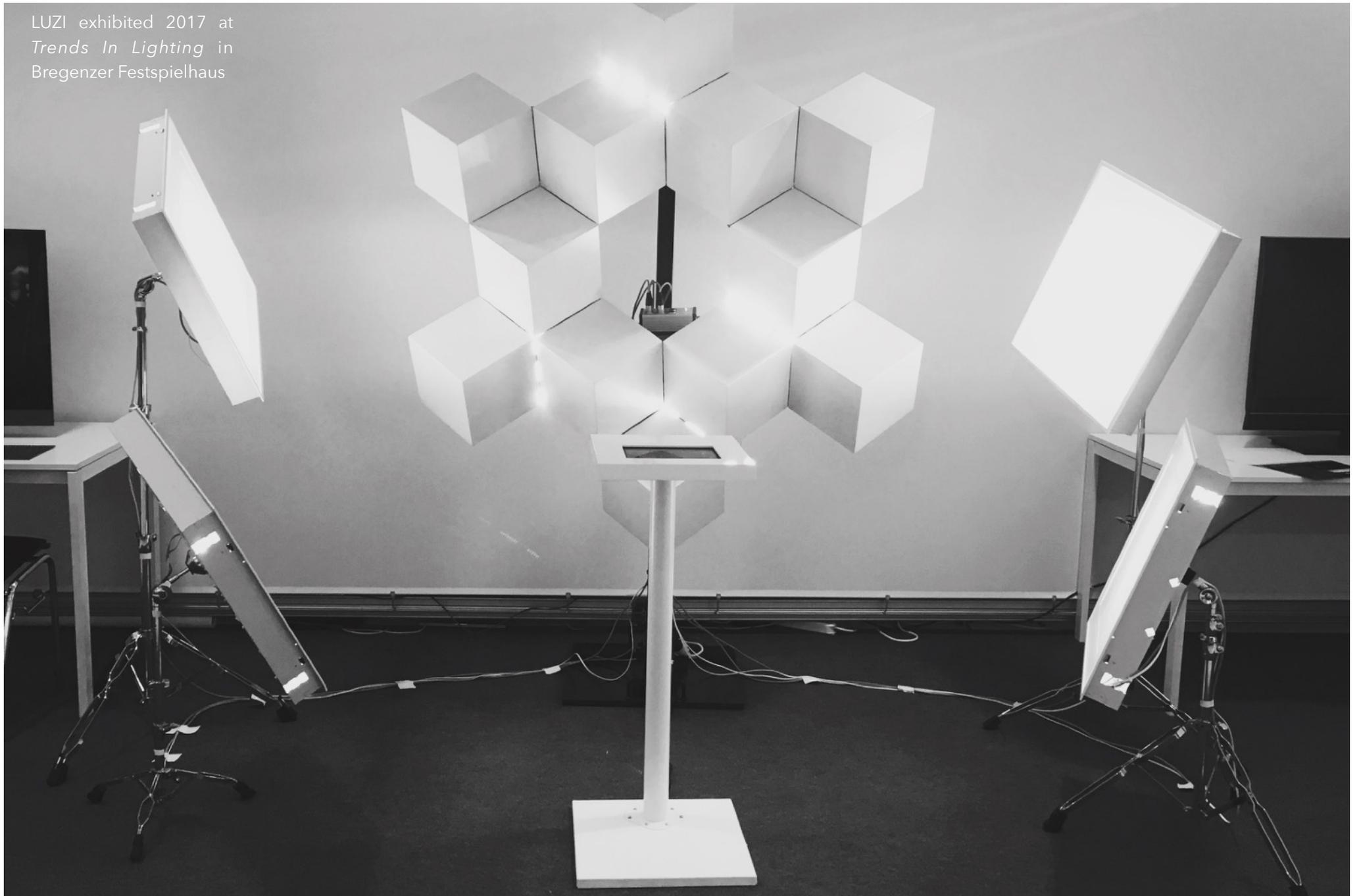


LUZI (Light-Uzi) is a light mixer custom built for the new media agency *The Paranormal Unicorn*. It allows the filming of four separate light settings simultaneously between which can be switched in post-production.

The new version features 12 individual channels that can output two separately adjustable voltages. All parameters are controlled through an app.



LUZI exhibited 2017 at
Trends In Lighting in
Bregener Festspielhaus

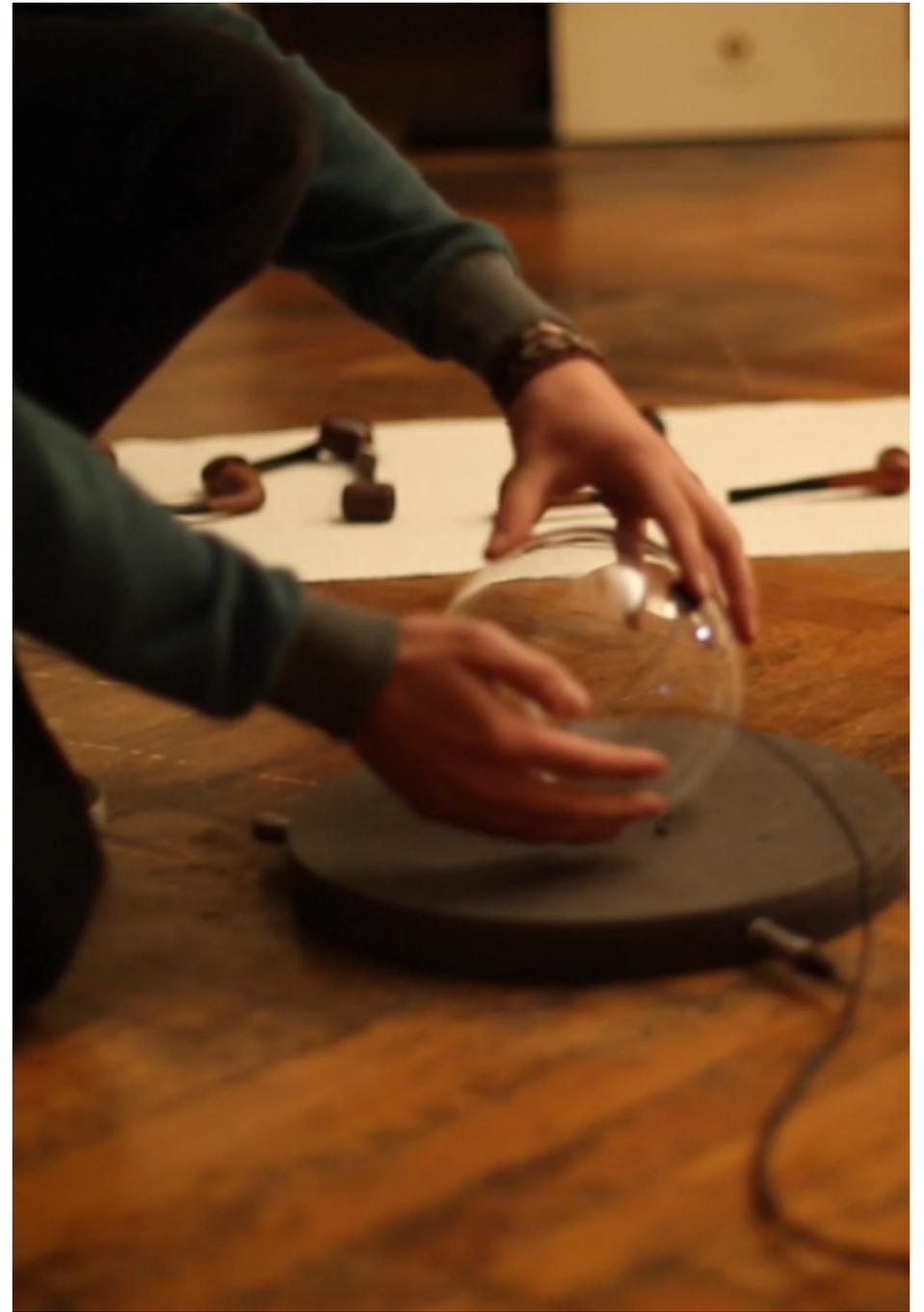


SONØR



SONØR is an electro-acoustic instrument which uses everyday objects as its own resonant body. Excited through the player's voice or samples, the objects reproduce sound enriched by their own resonant characteristics. Using piezo microphones, each object is then individually recorded into a buffer and played back through the object and then recorded again. The longer this recursion continues, the more the own resonant characteristics of each object overlap. This procedure enables the instrument to adapt the sonic characteristics of any vibration-capable object. The operating system is controlled using a tablet which docks onto the main segment. Through it, the player has various possibilities of manipulating the process. The other 3 segments serve as docks for the objects. Each of these contains a transducer which induces the sound into the object and a piezo microphone that records it.

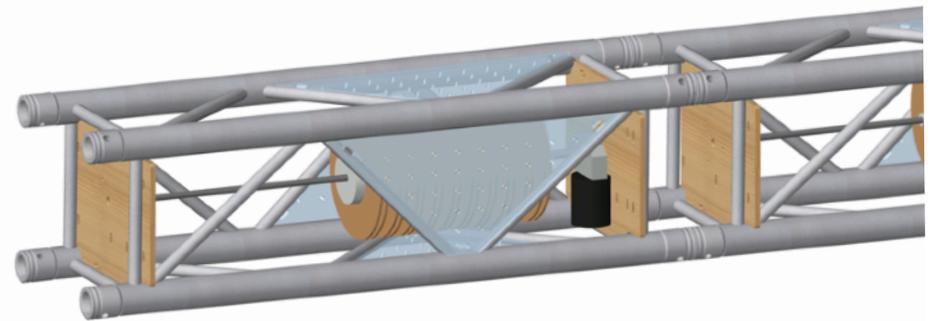




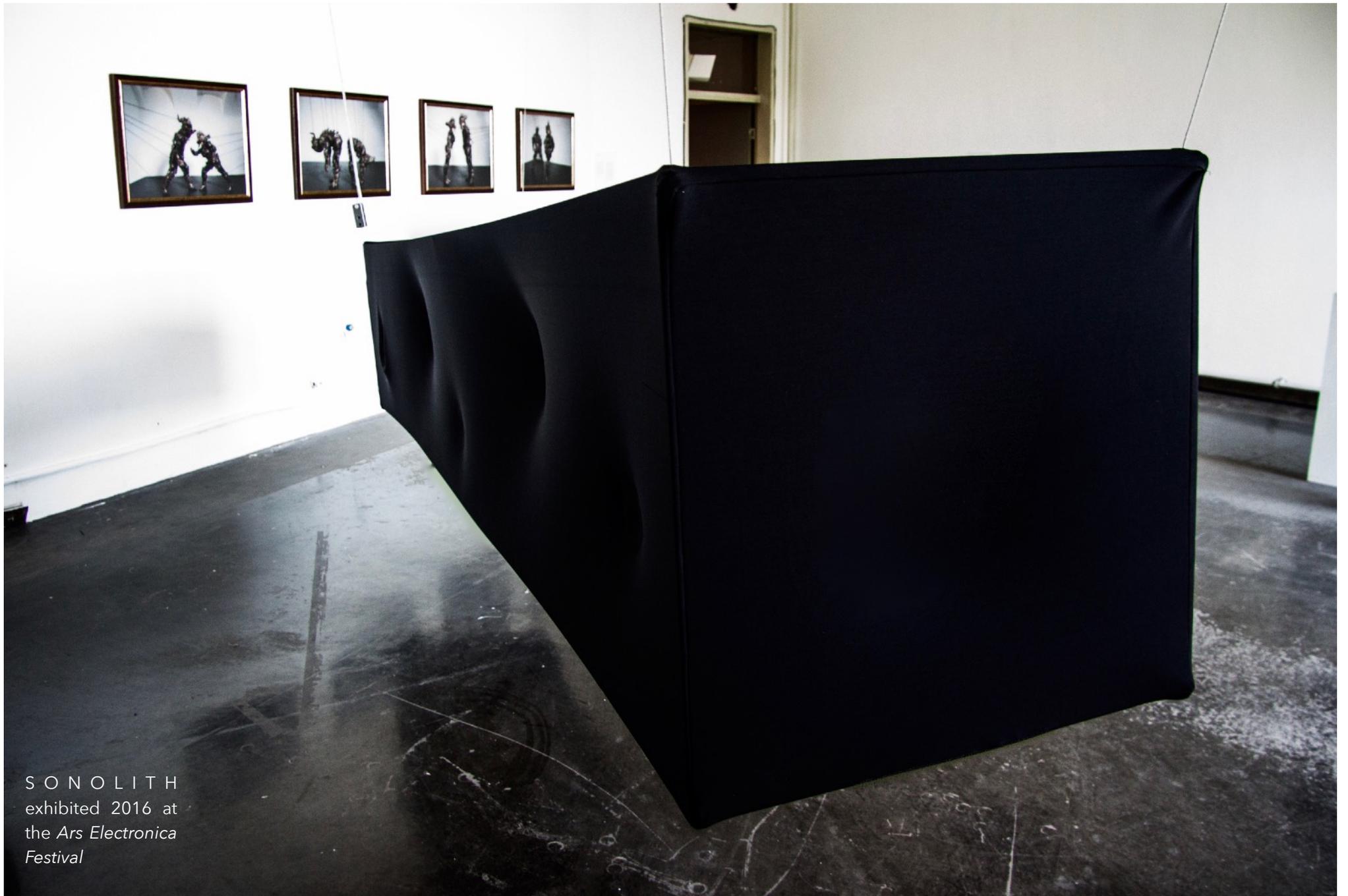
SONOLITH



«A seemingly solid monolith suspended from the ceiling. When inspected from a nearer distance, odd wave-like movements can be seen emerging on its surface. The material seems to change its gaseous state, appearing rather soft or even liquid.»



The fabric is pulled by 25 strings individually spanned and released by 3 tumblers, each driven by a wiper motor.



SONOLITH
exhibited 2016 at
the *Ars Electronica*
Festival

OTHER WORKS



Morning Mouse

A computer mouse in shape of a coffee cup. The cursor is moved with the cup, to scroll the liquid container is turned. Left and right click are performed using a copper spoon conducting electricity through the handle.



Steampunk Headphones

A set of headphones from the 1930ties with membranes from the AKG K451 headphones. On the right earpiece an old clock-mechanism was added.



Nurb Sphere

A feedback instrument made from a balloon containing seven microphones and a speaker. By deforming the balloon, the distance between each microphone to the speaker changes, creating seven differently pitched feedbacks.



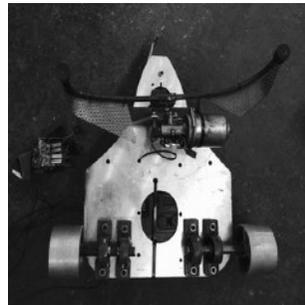
Sweetspotting

This device automatically directs a parametric speaker to the listener by tracking him/her and tilting the X and Y axis using wiper motors.



TK-One

The TK-one is an expressive and intuitive custom midi-controller which features a touch slider, distance sensor and a capacitive touch button.



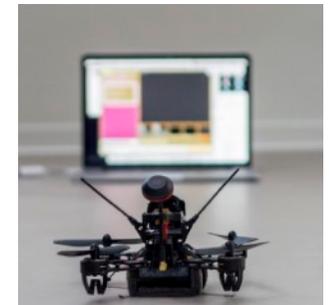
E-MA1

E-MA Is a walking robot operated through finger movement. It walks with its front legs while its back is dragged along on wheels, reminding of the first creatures which came on land.



E-MA2

Is the second robot of the E-MA series. It moves on tracks, is controlled through an internal processor and uses a LIDAR sensor to orient itself.



First Ear Perspective

In this installation, a drone hovers through a virtual sonic environment while the listener is surrounded by speakers recreating the acoustic perspective of the drone.

COMMISSIONED WORKS



Special Cases - Cosmic Rocket

A 9 meter tall rocket built from instrument-cases of the Vienna Philharmony. exhibited at the Belvedere, Vienna.

A work of:
Nives Widauer



Big Paul

Based on the principle of the Nipkow-disk, a large steel wheel with tiny holes spins at around 11'000 Rpm. A light blinks at a specific rate through the holes creating a moving image. A second identical wheel with a photo diode instead of a light acts as a camera. A motor controller was developed to maintain the speed as well as syncing the two wheels that they spin in equal phase.

A work of:
Gebhard Sengmüller



Mask

A wooden tribal mask with back mirrors from an old scooter extending from the back. The mirrors follow the direction of the person moving in front of it.

A work of:
Nives Widauer



Chatterbag

A talkative Kelly-Bag with 3 servos moving the flap like a mouth, the buckles like arms and the body as if it was breathing.

A work of:
Nives Widauer