



airpiano



Mobile Lorm Glove

The airpiano is a MIDI/OSC controller that lets the user trigger invisible keys and faders in midair. The device can be used for playing melodies, triggering loops, and controlling effects. On-board LED feedback allows performing without the need for a computer display. Setting the 24 virtual keys and eight virtual faders is accomplished with custom software. The airpiano introduces not only an intuitive and simple touch-free interaction, but an entirely new user experience centered around exploring this experimental instrument.

Project website: <http://www.airpiano.de/>

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The Mobile Lorm Glove is a communication and translation device for the deaf-blind. It translates the hand-touch alphabet Lorm, a common form of communication used by people with both hearing and vision impairment, into digital text and vice-versa. The prototype enables the deaf-blind user to compose messages via the pressure-sensitive palm of the glove that are transmitted as text messages to the receiver's handheld device. Vibrotactile feedback patterns allow the wearer to perceive incoming messages. It supports communication over distance, provides access to autonomous information, and serves as an interpreter for people not familiar with Lorm.

Project website: <http://www.design-research-lab.org> **Publication:** Mobile Lorm Glove—Introducing a communication device for deaf-blind people. Proc. of TEI 2012 (Feb. 19-22, Kingston, Ontario, Canada). ACM, New York, 2012.

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Cueb



Affective Resonance

Cueb is a set of interactive photo cubes that aims to encourage parents and teenagers to explore digital photos of their individual and shared experiences, reminisce, and exchange stories. Family members each have their own cube with photos of their individual experiences. Shaking a cube will randomly display photos on six sides. Connecting cubes by holding them together will display photos of the family members' shared experiences. Photos can be transferred between cubes and locked for use as a selection filter to find related photos. This generates surprising photo results and allows parents and teenagers to compare their experiences.

Project website: <http://cueb.conniegolsteijn.com> **Publication:** Golsteijn, C. and van den Hoven, E. Facilitating parent-teenager communication through interactive photo cubes. Personal and Ubiquitous Computing (Dec. 2011). Online first; DOI 10.1007/s00779-011-0487-9

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Affective Resonance is a technologically enhanced environment that supports participatory behavior and connects individuals through the visualization of thought in time and space, revealing the discrete network existing in users' immediate environments.

Participants are equipped with an EEG headset enabling them to interact with a ferrofluid-based centerpiece that fluctuates according to their neurofeedback. Each participant is isolated through sound, but connected through vision as they co-construct the dynamics of the fluid by controlling their mental states, individually and collaboratively. This neuro-responsive environment portrays David Bohm's *implicate order* (1980) perceived through vision and sound in the context of a temporary community.

Project website: <http://www.nourdiab.com/ar/>

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