

# W.O.M. - Workshop Osc Machine

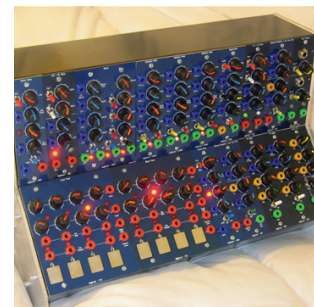
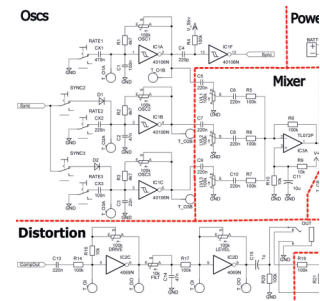
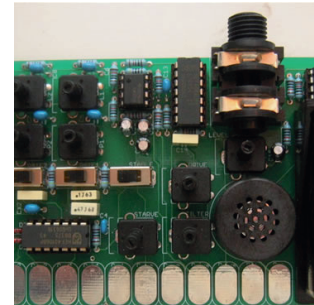
Tom Bugs (UK)

The Workshop Osc Machine (WOM) has been designed as a simple DIY kit to introduce some basic electronic techniques in workshop events. Parts kits with PCB, all components and detailed instructions are sold from time to time. \*\*\*Now with RED circuit board\*\*\*

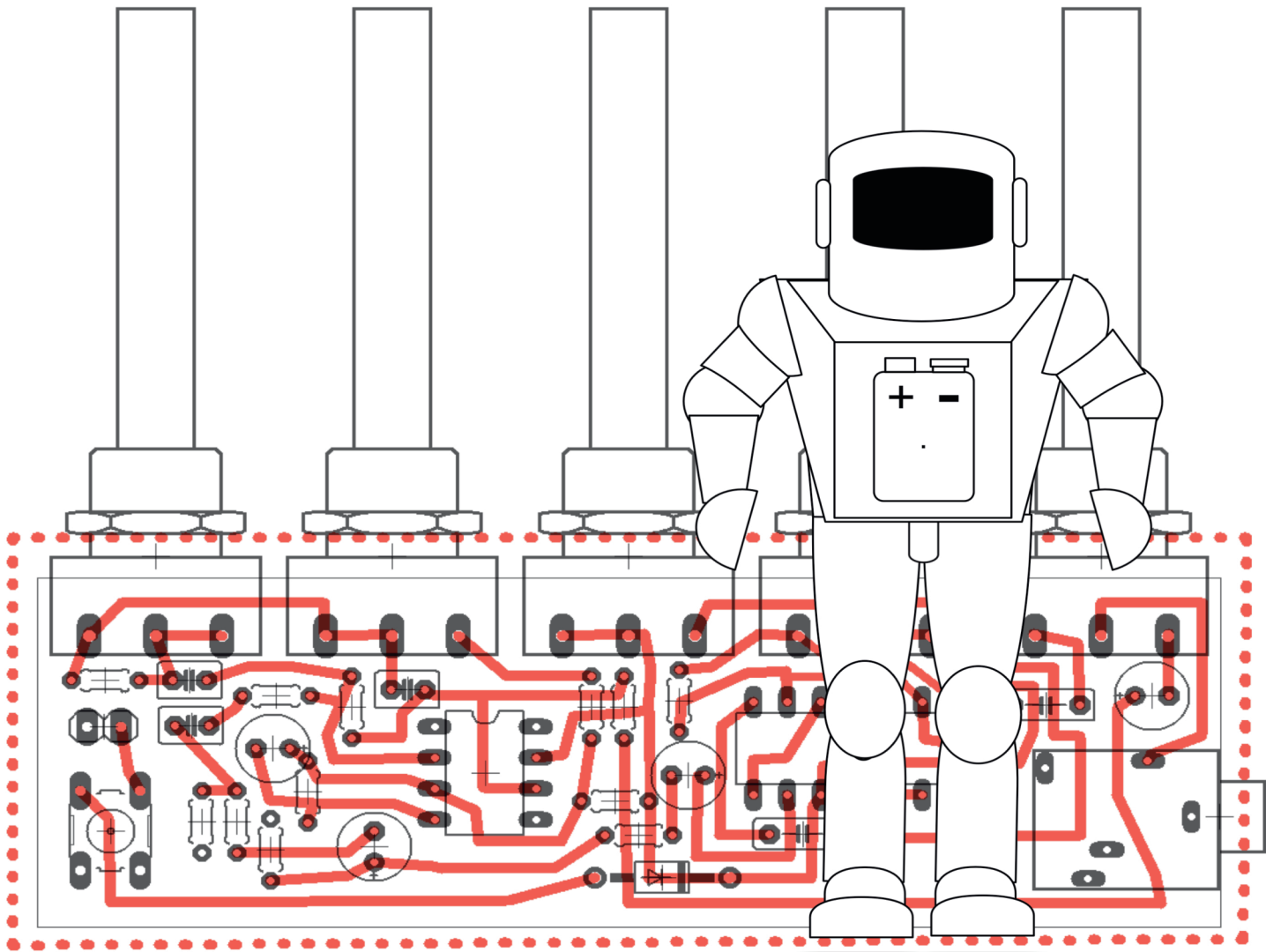
The WOM is a compact one-board-synth featuring 3 oscillators (with range and sync switches), 3 channel mixer, drive and tone section, power starvation (stable or instable switchable) 1/4" jack out or onboard mini-amp, 10 dials, 7 switches, 13 body contacts and 9v battery operation.

Sound Demo MP3s (lofi recording straight into laptop / no effects):  
Part 1 - basic oscillations / mixing plus power starvation at the end  
Part 2 - showing the OscSync sounds  
Part 3 - full play with starvation, body contacts, random

Everyone gets to build their own kit (to keep at the end) and it is simple enough to complete in only a few hours, even for people with zero prior electronics experience.



<http://www.bugbrand.co.uk>



[www.diegoeldeleon.blogspot.com](http://www.diegoeldeleon.blogspot.com)

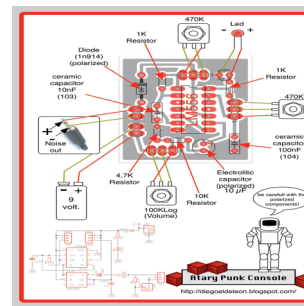
## LP atari punk console.

Diego de León (ES), Alejandro Bizzotto (ES)

This workshop offers the participant an introduction to the atari punk console circuit, a simple DIY noisemaker circuit. The LP Atari Punk Console is an improved version of this famous circuit, developed by Forrest M. Mims III.

The circuit has its name from its square wave output, as it is similar sounding to The Atari 2600's. The console is a standalone instrument and works perfectly as first DIY electronics project.  
No previous knowledge is needed.

<http://diegoeldeleonenglish.blogspot.com/>



Diego de León <http://diegoeldeleon.blogspot.com/>  
art kill art

Born in Spain in 1978 in a craftsmen's family. After studying industrial electro-mechanics, i joined the Leon school of fine arts, where i discovered enjoying the arts, through an anti-academic and self-taught way. In the year 2000, i moved to barcelona prosecuting his real vocation : "sound arts". After doing some courses in audio, i began to work as sound designer, recording artist, Dj and musician. Then i began to work in electronics, forgetting computers, and rediscovering the pleasure to work with the hands. Actually my main project is a "synth-art" based project, recycling on a physical as well as on a sound level. Here, the synthesizers are not only sound generators, but also have generate their own aesthetic.

I'm also part of the group Sonom "emotional waves research" ([www.sonom.org](http://www.sonom.org)) a copyleft philosophy based collective, focusing and investigating the aesthetics of waves and the relation with the human emotions.



# The DIY drone synthesizer

Peter Edwards (US)

## Drone Lab Workshop:

Build an analog Drone Synth, rhythm box & effects processor. Cost- \$150. This fee covers all materials and necessary tools.

Difficulty- mid to low but may prove very challenging for someone with NO soldering experience. In this workshop each participant will build a complete Drone Lab kit. Options for upgrading and modification will be discussed though out the workshop. Workshop is expected to take 3-4 hours. All participants are encouraged to participate in a group drone performance on the 22nd @ 21:00.



## What is the drone lab?:

The Drone Lab is a 25 knob, 4 voice analog drone synth, rhythm generator and FX processor. It is capable of generating rich, textured soundscapes, hypnotic drones and complex rhythmic sequences. It features a series of filter and distortions circuits and an audio input jack. This allows it to be used as an effects processor for external audio signals as well as a stand alone sound generator.

For more info on the Drone Lab go

to: <http://casperelectronics.com/finished-pieces/drone-lab/drone-lab-v2/>



## About the instructor:

Peter Edwards has been exploring the field of circuit bending and creative electronics since 2000 through his business Casperelectronics. Edwards received an M.F.A in sculpture from The Rhode Island School of Design in 2000. Since then he has taught himself electronics and strives to find ways to help other creative thinkers take control of the medium. Edwards currently lives in Troy, New York where he operates casperelectronics and co curates the creative electronics performance space Casper Land.



casperelectronics- sole proprietor

I work with musicians and artists around the world creating custom musical instruments and teaching others the art of circuit modification.

My work involves the use of traditional electrical engineering practice combined with experimental circuit modification. Community interaction and open source access to all of my research plays a very large role in my work. My focus has shifted from purely researching circuit modification to looking at the large scale cultural impact of communal hardware hacking and building.

<http://www.casperelectronics.com>





# Qeve - free your visulas

Luca Carrubba (IT)

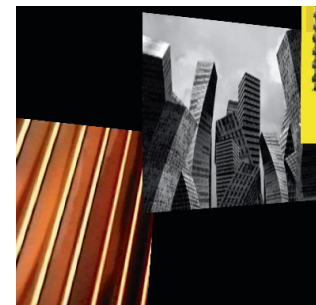
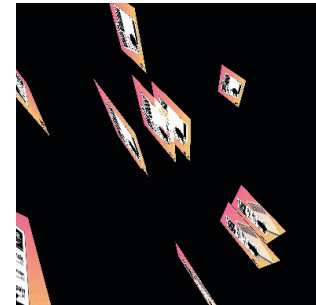
workshop's aim is to introduce Qeve, a new free tool for video improvisation,. Workshop will be presented in two parts, each one less than one hour. First part, more theoretic, I go to introduce Qeve, talking about why I programmed a new vjing software and not used some that does exist. Which kind of technologies (Puredata, bash, linux, wiimote,) I used, and how much is important D.I.Y. paradigm in artist production. So I gonna to introduce Qeve's goals: 3 independent layers, 5 kind of players (video, 3d, photos, text, paint), mix 3d and 2d graphic in real time, a video step sequencer, live streaming session through giss.tv servers, text animation path and draw tool, Audio analysis in real time, simple midi configuration, totally controllable by OSC, Will remote support, Support for Nintendo DS as wifi controller, linux and mac (soon) support, it's free. After this presentation I gonna to make a little demo to demonstrate Qeve's skills. The second part will be practice. With participants we gonna to install Qeve in participant's notebooks and to make a little streaming session.

During workshop participants can use Gnu/linux live distro, that will include Qeve and all programs used for.

<http://www.estereotips.net/qeve/>

Luca Carrubba  
<http://www.estereotips.net>

Graduated with honors in Sociology of Communication, Luca Carrubba has worked for 4 years under the new media field as artist and independent researcher. Formed between institutional and underground medialabs in Barcelona and Madrid, he focus its production on the interaction between audio and video, always share the practices and codes. Based its action on certain keywords like DIY (do it yourself), knowledge sharing, accessibility, recycling and social movements. Also participated in many workshops to spread free software/technology/culture among Italy, Spain, Argentina, Brazil, Palestine and China.

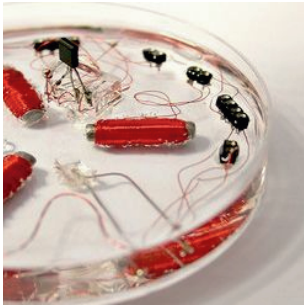




## hackteria | bioelectronix for artists

Marc Robert Dusseiller (CH), Andy Gracie (ES)

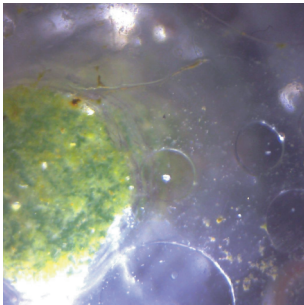
Hackteria is a collection of Open Source Biological Art Projects instigated in February 2009 by Andy Gracie (UK), Marc Dusseiller (CH) and Yashas Shetty (IN). The aim of the project is to develop a rich web resource for people interested in or developing projects that involve DIY bioart, open source software and electronic experimentation. As a community platform, hackteria is encouraging the collaboration of scientists, hackers and artists to combine their expertise, write critical and theoretical reflections, share simple instructions to work with lifescience technologies and cooperate on the organization of workshops, festival and meetings.



### Theoretical Description

In this workshop the experiments will take place in a close-up view of living microorganisms, which appears to be a world by itself - maybe due to the scaling and the amplification of a microscope, but maybe also due to all parameters of imagination that the microcosmos provokes. With the image and the movement of the organisms, the participants are encouraged to collect inspiration and bridge video and sound to what they experience with these small "animalcules", as termed by their first observer Leeuwenhoek in 1677.

We also hope to work with the participants in the context of Jakob von Uexkull's theory of 'Umwelt', the idea of how living beings subjectively perceive their environment and a system of signs interpreted by an organism which can be communicated with other organisms via chemical, visual, and acoustic signals.



### Practical Description

The activities of the workshop will take place in 'close-up' - that is to say that a central focus of the activities will be the hacking of webcams to build DIY video microscopes. Using materials such as PDMS silicone, commonly used in bionanotechnology, the participants will design and construct their own bespoke device within which experiments in bioelectronic interaction can take place. We will also approach the making of simple biosensors with which to, for example, measure changes in gas or pH, or even to monitor the heartbeat of daphnia.

The organisms we use in the process will be sourced from the local environment. Tardigrades, rotifers, nematodes and daphnia are fairly common creatures and can be found in samples of moss, soil or pondwater. At the start of the workshop we will take participants on an exploratory and sample collecting urban hike and then take them through the process of building extraction devices and isolating the required organisms.



The DIY video microscopes will allow various forms of video tracking via PiDiP and PoDoP and its possibilities for generation of sound environments or other interactions available through Pd.

The culmination of the workshop will be a review of the systems the participants have developed and a brainstorming session on how these could be used for performance and/or installation settings. Given time we may even be able to test one or two of these ideas.





The participants will learn

How to hack webcams to be used as microscopes, observe the behaviour and motion of the waterbears and other microorganisms, hack into electronic devices to integrate into bioelectronic culture devices and build habitats for the animals.

Material needed

The participant should bring their own laptop/computer  
general lab stuff they might have access to common hardware they might want to adapt

Material available

Various basic labware such as glassware, tubes and petri-dishes, usb-microscopes, microorganisms, silicone embedding material, soldering stations, electronic parts, arduinos etc .

Software

The software will be based around the use of Pd (and some of its libraries) and Arduino. Participants will also be free to use Processing / Wiring or any other open source tools they prefer.

Proposed schedule

Day 1

welcome/introduction and overview, inputs from participants, how big are the things we want to work with? first views of the microcosmos, webcam hacking, build a microscope, urban micro\_walk / collection of microorganisms, set-ups for extraction and isolation of organisms.

Day 2

microscopy overview/ improve microscope/ intro to bioelectronix/ puredata for microscopy/ silicone bioelectronix fabrication

Day 3

improve the microscope / leds, motors and sensors  
design and build the bioelectronix device  
Bio-Arduino / control your bioelectronix device  
simple bio-sensors  
bio2sound interfaces  
sound2bio communication  
observation and bio-hacking  
brainstorm about concepts for installations/performances

Sponsors

This project is partially funded by the Swiss Cultural Foundation and Migros Kulturprozent

Marc Robert Dusseiller  
<http://www.dusseiller.ch/labs>  
Swiss Mechatronic Art Society

Marc R. Dusseiller is a transdisciplinary scholar, lecturer for Micro- and Nanotechnology and artist. He works in an integral way to combine science, art and education. He performs DIY-workshops in lo-fi electronics, music and robotics, has made various short movies and is currently developing means to perform biological science (mammalian cell culture, microfluidics, live-microscopy) in a DIY fashion in your kitchen or your atelier. He is also co-organizing dock18, Room for Mediacultures, and various other engagements like the diy\* festival as the president of the Swiss Mechatronic Art Society, SGMK.

Andy Gracie

<http://www.hostprods.net/>

Andy Gracie's work is concerned with information systems contained within living organisms and ecosystems and how they may be accessed and processed through the use of technology. His work reflects on the ideas of Umwelt and biosemiotics developed by von Uexkull and Seboek as it aims to explore how signs, symbols and signifiers may form a common link between artificial and natural intelligences. He is interested in using organisms as data processing systems in an effort to extract meaning and to examine how forms of robotic entity can become immersed in living networks. This interest extends to examining how organic and inorganic systems can be wired together through various channels, where communication and presence are realised by agency. The majority of Gracie's work is realised in the form of installation, often employing robotics, custom electronics, sound and video alongside biological processes.

While following rigorous scientific methodologies and maintaining a strong critical viewpoint his work is faithful to traditional artistic principles of metaphor, ambiguity and a strong sense of wonder.





## Navalha -handcrafted hardware/software audio performance interface

Glerm Soares (BR)

Navalha (<http://navalha.devolts.org/> ) is a patch for slicing audio files in real time, tottaly developed in PureData language, with a goal of being a performance interface but also a very didatic way to teach programming to artists witha free software tool. This project will be togheter also with techniques for handcraft an arduino based interface customized to this software. The technique shown in workshop will use a very cheap and simple way to do a simplest possible arduino based hardware, which I use in my workshops in Brazil and is already documented in <http://artesanato.devolts.org/> or [http://artesanato.devolts.org/?page\\_id=93](http://artesanato.devolts.org/?page_id=93) )

Glerm Soares is a bricoleur poetic avatar.

Libre/Free technology researcher and autonomous self-taught computational scientist. One of the founders of Estúdio Livre, brazilian collective wich discuss technically and conceptually the using of open-source and libre tools specially in arts and tactical media.

Is very active also at the Metareciclagem network and discussions about recycling technology and humanity-rediscovering-the-fire-skills taking control back from fetishist gadget consumption culture.

Since early 00's works with the collective avatar Orquestra Organismo at meetings, performances, videos,songs, plots, conspiracies, psychogeographic maps and lots of efforts to put nice folks together bending geographic difficulties.ongs, plots, conspiracies, psychogeographic maps and lots of efforts to put nice folks together bending geographic difficulties. Orquestra Organismo have a very active weblog as some kind of its semantic spine of our "collective identity": "Hackeando Catatau" - you also are invited to take part on this. Also is very often at Descentro and the Submidialogia festival, wich basically insists in the same mantras of the paragraphs above.





# CHAOSLAB (HAKART) random evolution & aperiodic bifurcation workshop in Piksel

AP033: Julien Ottavi (FR), Jenny Pickett (FR), Dominique Leroy (FR), Julien Poidevin (FR), Ryan Jordan (UK)

Experience #2 (HAKART): random evolution & aperiodic bifurcation

by Julien Ottavi

Chaotic systems are not as predominant as indeterminacy. Chaoslab creates sensitive dependences on initial conditions, devices and inputs, acting on an evolution through phase space (installation/workshop within a place) that appears to be quite random. Our Chaotic models seem to be deployed to ascertain various kinds of activities related to bifurcation points (uncontrolled steps of evolution within the workshop), period doubling sequences (or multiple sequences), the onset of chaotic dynamics proposed by the participants, the strange attractors between sources, filters, amplifications, connections and other denizens of this chaos zoo hacking behaviour.

Chaoslab amplifies the lower limit on how small changes or perturbations can be felt—the smallest of effects will eventually intensify within the whole process. This act of amplification is dependent on the nature of particular kinds of non-linear dynamics—those which exhibit stretching and folding (confinement) of trajectories, where there are no trajectory crossings, and which exhibit aperiodic orbits—these apparently open the door for quantum effects to change the behaviour of chaotic macroscopic systems.

Is CHAOSLAB a real phenomenon? Is it a static state or a current unknown space?

Aside from irregular behaviour of real-world, ie everyday life systems of maintenance, CHAOSLAB is also invoked to explain features like the actual trajectories exhibited in a given state space (piksel festival) or the sojourn times (2 to 4 days) of trajectories in particular regions of state space.

initial conditions:

a place, some spaces  
 some periodicities, a given duration (theoretically)  
 some trajectories  
 random bodies  
 machines factors  
 Ions  
 air  
 ...

## chaos & indeterminacy

Indeterminacy, uncertainty, disorder, randomness, vagueness, fuzziness, ambiguity, crisis, indecisiveness – terms usually related to Chaos but also opposed to the concepts of order, structure and organization. Such terms appear as inseparable obstacles to the understanding of “what’s happening in here?”, and in consequence, certain or precise knowledge about things (as a non definite substance) and events (a production of action expected or not) in flux are ascertained in this artistic experiment.

Chaos is a myth develop in the ancient Cosmologies, we called it “tohu-bohu” (wrote as such in the bible for example Genesis 1:2), before existence, life - reigns chaos. From this biblical notion, could we not determine that life, thus, in its present state, is post-chaos? And that chaos reigns in this pre-





formation/pre-organized plane of existence, it is through the quantum cracks, following [Friedrich Nietzsche's](#) declaration in his book *The Gay Science*, 1882 that "god is dead", that chaos reveals itself? Are we not now trying to organize our chaotic predisposition? Does liberal human subject neatly file away and categorize his intellect in a well order and organized manner? What is the percentage of chaos factors on that composed our mind? And what of the soul?

We almost understand notion of chaos, if we are a living being born of chaotic materials, as we suppose here, we can no longer determine to oppose both terms – chaos and order. Conceptually they depend on the existence of each other to reinforce either state. It appears however, to escape our understanding; that even if produced in our mental imagination, we suppose chaos, something that can't be experience in its entirety, as a singular state. Whilst we could probably evaluate and define chaos within a universal entity composed of billions of frictional relations far beyond the human condition, even then we cannot be sure about what we might experience. Yet, what about the flip side of this? – An extreme state of order – This is perhaps further from our comprehension, but closer to our fears (at least those of the silent masses), due to the totalitarian visions of twentieth century dictators and various democratic governments alike.

Seeing chaos or randomness as not just a way to express some unexpected change or event but also a way to multiple the losses of regularity, as pre-organisational structure, the creation of new processes of a specific production, we have to cope with an epistemological relation to things - a non-predicable complexity.

Indeterminacy could be seen as an entangled intricacy, an undiscerning mixture of changing elements, a-periodic alteration involving different parameters and unpredictable as such. Its one scientific obsession to understand and control this unpredictability – as opposed to the arts, who rather try to harness and compose with those variations and indeterminacies.

If we had to compose a new formula for a chaotic blast (a decibel detonation) using Brownian movement based on non-mathematical sequences of sound acceleration, as the collisions of particles (speed timbre of words - code - symphony) which scheme in isolated systems – here, entropy (thought as de-measured transformations of structured movements into this a-symmetric flow of disordered time) diffuses the electronic noise burst.

*What is time in indeterminacy?*

We could see an event trapped in a temporal repetition – a fiction occurring at exactly the point of this events final occurrence. Stretching from position a (the first movement) to b (each repetition of a and b to infinity), it signifies an unknown position in fact. Time has moved forward and lost itself (in our conception) to grains of randomness where layers of transcendence become micro-movements as opposed to the general acceptance of the arrows of time. This passage is heavily laden with the fruits of indeterminacy revealing a forecast of predisposition and a clear mental view of the 'truth'. Time fluctuates between contrary and ambiguous machinery bending it in many direction at once, altering vision and perception of what could be eventually produce a state of the 'real'. This 'real'time is blurred randomly by unconsciousness, the foolish machine of "tromperie", a mask of illusion here occurs, transforming and unlocking the imagination – the dealing place of a fiction of permanently altered states.

#### **strange attractors and the chaosmatic experience**

Strange attractors set the limits of our chaosmatic trajectory, an attractor that is topologically distinct







from the periodic accumulation of blended perception or a limited cycle of noise (a non analysed transfer of pure energy) which may then be considered as a fractal attractor. Consider a place in shift-phase space, defined by those initial conditions composed within a dissipative system, this space will shrink as the noise evolves in time, which in turn will create random trajectories that are no longer in direct relation with those initial conditions. We evolve through a sensitive set of attractors embedded in multi-fractal conditions, the trajectories of the contradictory points re-introduce these unexpected conditions before moving apart in some random direction (non-predictable). closer in others, but there will be a net shrinkage within the place, all physical forms of life will feel this phantasmagoric emulation of senses . Ultimately, all convergent points will lie along a fine line relative to the limits set originally by the attractors. The strange attractor. All the possessed bodies will shift-phase in the space and then land on the attractor forming in chaos. This sudden movement of the strange attractors results, when sensitive fractal conditions are not conservative, ie not only internalized and isolated. Engendering a delirium of repulsive shrinking in space, displaced, (lost?) in various layers of time.

Because of extreme dependence on initial conditions, the general rule for a chaotic experimentation is that one cannot create a model that will accurately predict outcomes. None of them have the ideal conditions to even approach a draft of a total 'chaosmosis'. It demonstrates that no matter how close conditions start out, or wherever they take place, after a few iterations, minor differences will be blown way out of proportion changing the different direction that has been taken from the beginning of the experience. The points will then separate from each other at an exponential rate, transforming the places in a complete a-differential stretch of perceived times . A very tiny "error" in the initial conditions makes a very large difference in the outcome. And we probably reverse the process into his extreme opposite, thus by introducing those tiny errors in the initial conditions themselves.

Our Chaomatic experience could be summarize in two contradictory elements:

- Chaomatic is non-deterministic. Meaning no determining equation or rule dictates behaviour. Mathematics does not apply. Chaomatic is dislocated from any logical explanation. Chaomatic is non-predictable in their inner-materiality. Chaomatic is almost random, nearly disorderly. Is random experience chaotic? Is chaos has a sense of order and patter?
- Chaomosis is sensitive to initial conditions but not only, it is also open to the accidental or indeterminacy that may occur. Chaosmosis takes into account any slight change from the starting point as well as following changes of conditions - this can lead to significant differences in the outcomes.

### **Chaoslab as an experimental tohu-bohu situation**

To come in a present time (if such notion could exist really), no sooner experienced than it is already dispersed, or un-fleshed in an accumulation of memories - Chaoslab welcomes all types of divergent time, noise and light colliding with each other from the outset of its initial conditions. Chaolab creates random fractures through exponential rendering onto a space, forcing a shrinkage in the perception of the place. A congregate of electronic circuits, blast across the architecture through the amplified feedback of transducers – bass implosions and stroboscopic hallucination, cut-up language and sequencing in a maelstrom of electromagnetic physical mutations. Chaoslab is searching for a quantum ubiquity, a frozen time in which everything escapes the tangible, eludes our preordained controls and cheats our deterministic inhuman condition. An inverted cycle develops to





define a chaotic model in the universe amongst our everyday life activities. The Chaoslab tries to approach these questions in the various composition of the labs fundamental components, but also through a sensitive position towards our machines of perception. Chaoslab is expanding, using minimal changes as a potential for a re-creation of languages - starting from experience and “savoir-faire” of everyone involved in the process (participants from the different level of action). We are not seeking an answer or to define a 'truth', but organise a framework where we will de-construct our own habits, comprehension and mechanism for “making”. It may not bring satisfaction, nor be far from a perfection, or even a clear articulation of thoughts but at least it will always bring about a state of chaotic production of noise and of light, changing the paradigm of a space (the writing of a place) through altered random fiction and unexpected results.

#### Acknowledgement

thank you Jenny Pickett for conversation about chaos & time that contributed towards parts of this text.

Julien Ottavi  
<http://www.noiser.org>  
 AP033/A10LAB

A mediactivist, artist-researcher, musician, poet and tongues destroyer, experimental film maker and anarchist, founder and member of apo33, Julien Ottavi is involved in research and creative work, combining sound art, real-time video, new technologies and construction of electronic devices. An activist in the free software movement, he develops Apodio, a Gnu/Linux multimedia distribution. He is actually co-director of the Area10Medialab in London and participates in, and produces, numerous events such as conventions of researchers, artists and activists, sound art or multimedia festivals, workshops on free software and DIY electronics, etc.  
<http://www.noiser.org>  
<http://www.apo33.org>  
<http://www.a10lab.info>  
<http://www.crealab.info>

Jenny Pickett  
<http://jennypickett.co.uk>  
 AP033/A10LAB

Multimedia Artist working on sonic and interactive installation. Graduate BA(hons) Fine Art, Falmouth College of Art 2001-2004 and MA Interactive Media, Goldsmiths 2006-2007. Platform manager and creator of A10lab at Area10 Project Space 2008-present. Member and collaborator with Nantes based research lab AP033.  
 Recent Exhibitions : David Tudor's Rainforest IV, Area10 Project Space, Peckham 29/06/09-05/07/09.  
 Mal Au Pixel 2009, Paris 02/06/09-07/06/09. DIY, ESAD Amiens 01/02/09 – 21/02/09. L'espace critique, RIAM Festival, Marseille 10/02/09 – 14/02/09.  
<http://www.a10lab.info>  
<http://www.jennypickett.co.uk>  
<http://www.a10lab.info/scieprotocol>

Dominique Leroy  
<http://www.leftright.org/>  
 AP033

multimedia artist, Dominique Leroy lives and works in Rezé and in Nantes ; he has been participating since 2006 in various workshops organised by Apo33 and the association Ecos. His work calls on diverse modes of expression, in the forms of installation, performance or socio-active processes. His research and creation explore and question our lives : urban developments, technology, architecture, communication networks.  
<http://www.leftright.org/>

Julien Poidevin  
<http://www.myspace.com/abruitsecret>  
 AP033

Sound artist working on devices that question our relation with the body, or the territory. How does our sonic environment influence our sense of space?  
 How can we amplify the tensions between sound and space?  
 In a world saturated with sonic signals, how can we regain a desire to hear?  
 His projects often have something to do with sound: its origin, its reception, its aura, its potentiality to move us...

Ryan Jordan  
<http://doc.gold.ac.uk/~ma701rj/>  
 A10LAB

Overview of my work:  
 Live computer performances, noise/music, tekno, soundscapes; home made controllers attached to body; organise experimental music/live computer music events (noise=noise, hac...); I have performed my work in galleries, squats, pub cellars, theatres, the odd town hall, small festivals, and beaches in the UK and abroad.

Overview of my main project:  
 Sensory Response Systems is an exploration into audio-visual performance using an array of sensors responsive to physical movements in order to control the audio-visual output in programs such as pd and Max/MSP. It also looks at reshaping and replicating the body through the use of fabric, textiles and technology.



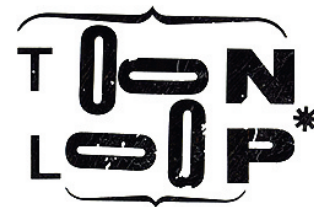
# ToonLoop Live Animation Workshop

Alexandre Qessy (CA)

In this workshop, Alexandre Qessy will guide you through the steps of installing and using ToonLoop on GNU/Linux. ToonLoop is a realtime stop motion performance tool. Depending on the material they have, artists can make drawings, paper cut animation, clay animation or pixilation.

The participants are encouraged to bring their own computer along with a V4L2-compatible camera with its stand and some proper lighting. They can also use controller such as MIDI keyboard, pedals or custom DIY controllers. ToonLoop can be controlled using the FUDI protocol from Pure Data, or using the OSC protocol. The live stop motion animation done with ToonLoop can be saved as Motion-JPEG movies and JPEG images.

ToonLoop is an idea and work of Alexandre Qessy with the help of Tristan Matthews. It is similar to the work of Pierre Hébert and Norman McLaren from the NFB of Canada who draw on film in live performances. See <http://www.toonloop.com> for more informations.



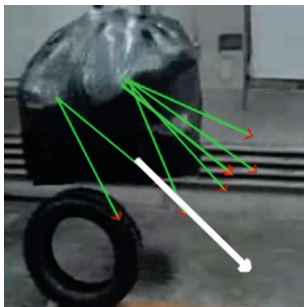
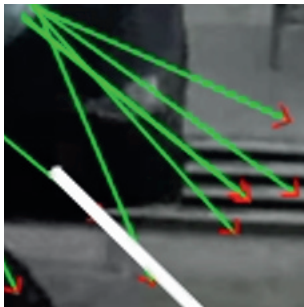
Alexandre Qessy is an audio-visual artist and developer from Montréal, Québec, Canada. He currently works at Society for Arts and Technology as a free software programmer and is a graduate student in Communication at UQAM.  
<http://alexandre.qessy.net>



# Enhancing Pure Data Interactivity with Computer Vision ( Open CV )

Yves Degoyon (ES), Lluís Gomez i Bigorda (ES)

Nowadays Computer Vision is acquiring a growing relevance in the field of interactive arts. The purpose of this workshop is to introduce some computer vision techniques which are the base of the actual `pd_opencv` library, a set of objects ( delivered as independent objects and not a library ), utilities and examples to use those techniques inside the Pure Data programming language. At the same time we introduce some practical examples of the possible use cases on this topic, and a brief introduction to the internals of the `pdp` and `Gem` libraries and the `openCV` API in order to understand the way to refine and extend the actual `pd_opencv` approach.



Yves Degoyon (es/fr) is a musician/performer and a free software developer/dealer . He's one of the main developer/admin of the free media platform : <http://www.giss.tv>  
he's practising copyleft philosophy under the name of d.R.e.G.S : <http://ydegoyon.free.fr>

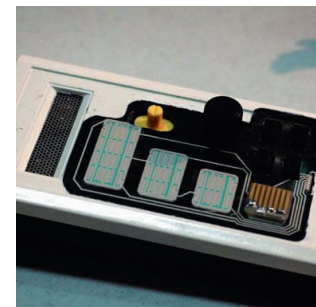
Lluís Gomez i Bigorda is in charge of FLOSS projects development in Le Hangar, Barcelona, center for visual arts of catalunya.  
He developed many objects for pure-data and is one of the main developers of the free media platform : <http://www.giss.tv>  
As a visual artist, he is a member of R3 and T4 collectives and played with DJ Rupture.  
Lluís Gomez i Bigorda  
<http://www.artefacte.org/pd>  
Hangar.org



# Building simple analogue light-controlled theremins

Andy Bolus (FR)

Sound artist Andy Bolus with previous experience in circuit bending will host a workshop where the participants will learn how to build a very simple analogue light-controlled theremin.



Andy Bolus (aka Evil Moisture) makes modified electronic toys, rewiring circuits such as those found inside children's talking computers and other electronic detritus, using the aleatoric sounds generated as source material for hi-speed cutup sound, as well as making installations.

In addition he produces a catalogue selling these alien objects, and has exhibited them several times, most notably in Spiral Garden (Aoyama, Japan) in 1998, treesaresospecial (tokyo japan) & honsono (osaka japan) in 2005. They are also sold in shops such as Bimbo Tower (Paris), Los Apson (Tokyo) and Kurara Audio Arts (Tokyo).

He has performed 100s of times in Japan and Europe under the name Evil Moisture since 1991, as well as releasing dozens of cassettes, 4 vinyl LPs, several cds and cdrs on numerous noise labels. He has worked with artists such as Yamantaka Eye (Hanatarash, XoX, Boredoms), Hironori Murakami (Vomit Lunchs), Erik Minkinen (as Intertecsupabrainbeatzroomboyz) Andrew Sharpley (as AA) Noel Akchote (as Lenny Kravitz U.K), John Weise, Howard Stelzer, Rudolf Eb.er (Runzelstirn & gurgelstock), as well as manufacturing modified toys for Luc Ferrari's last recordings, and making headphone equipment for "le placard" festival.





# VGA Signals: an introduction

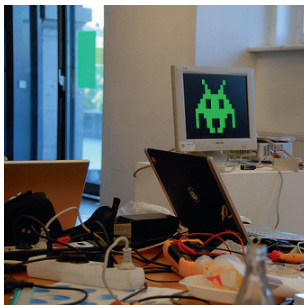
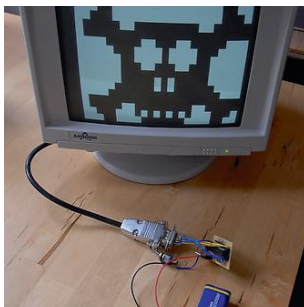
Arjan Scherpenisse (NL)

A hands-on workshop that introduces you to the world of VGA signals.

Microchip micro-controller it's possible to generate signals. With these signals you can display all kinds of pixel patterns on any VGA monitor or beamer. During the workshop participants will create their own "VGA test box" that will make it possible for you to do the same.



The micro-controller will be programmed using PIC assembly language, however, assembly coding skills are not required, as pre-programmed chips will be available, and participants can create their own image / logo for their test box. Participants do need some soldering skills. The more adventurous participants can use the prepared micro-controller to hook it up to an Arduino or I2C chip, so that the VGA signal can be modified using a more powerful computer



Arjan Scherpenisse  
<http://www.scherpenisse.net/>

Amsterdam, NL-based artist, recently (July 2009) graduated from the Gerrit Rietveld Academy. Background in software development, artificial intelligence, new media research Works with electronics since 2008, building interactive installations, often using self-designed open hardware. Keywords: atmel, pic, diy, vga, i2c, bluetooth, python, c++. Also gives workshops on various electronics-related subjects. Exhibited in / presented his work at Mediamatic, Amsterdam, Kunstuniversitat Linz, SGMK Zurich, ISEA'08 Singapore, PICNIC'07 Amsterdam







# minia, Open hardware sensor board

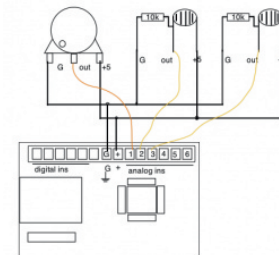
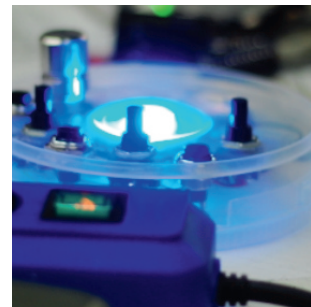
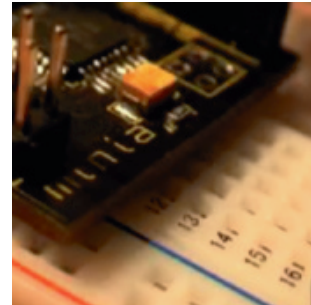
Servando Barreiro (DE)

Minia is an Usb, plug n play & multiplatform device that allows the computer to comunicate with the external /physical world. Since it´s open hardware, you can customize it and use in many ways with different kind of sensors, with differents softwares and for different applications such Audio, video, measurement of phisical parameters, etc..

Minia comes with 6 analog inputs at 10 bit of resolution (1024 steps..) Minia uses the Hid protocol, this is a high speed protocol that runs directly over USB so, no drivers needed for this device in any platform (linux, macosX, windows) and no more pain with ancient protocols like "serial". Hid has extremely low latency so the sensor response is immediat..

Example applicattions:

- You can built with it a footswitch controller with buttons and pedals.
- you can built with in a flight simulator controller (the original application..)
- you can built with it an ultra tiny midi controller with sensors..
- you can built with it an interactive installation
- you can wear it and measure your movements.....
- you can think in a complete different application..



Servando Barreiro  
<http://minitronics.net/>



## Pixelache Software of the Year 2010

The Pixelache Software of the Year 2010 title is given to two different projects this time - pure:dyne by GOTO10 and APODIO by APO33. Both of these are 'live CD' projects - distribution versions of Gnu/Linux operating system, which boot on any PC laptop or desktop, including the intel-based Mac and x86 netbooks. These distributions are dedicated to creative multimedia tools for audio/video processing and real-time performance and aims to provide a full set of tools for the average media artists needs.

In addition to these two initiatives, we would like to draw attention to the practice of developing custom GNU/Linux distributions tailored for specific uses such as media production, audio/video streaming, hacktivism, art installations and more. Other such initiatives include dyne:bolic, Sahabuntu and PikseLiveCD.

GOTO10 is a collective of international artists and programmers, dedicated to Free/Libre/Open Source Software (FLOSS) and digital arts. GOTO10 aims to support and grow digital art projects and tools for artistic creation, located on the blurry line between software programming and art. GOTO10 lives on servers, IRC channels, lists and streams. We don't have any static physical meeting place. We organize events throughout Europe, independently and in collaboration with like-minded organizations. Our aim is to live within this network of machines, people and places, to develop and teach new and existing tools, to produce, experiment and play.

APO33 , is an interdisciplinary laboratory drawing on the artistic and technological fields, fostering various collective projects associating research, experimentation and social intervention. In the continuity of the dynamics that has been opened by the free software movement, apo33 is structured as a modular space, initiating collaborative projects and creative processes, as well as exploring new artistic and creative modes of production and diffusion.

APODIO will be presented in Piksel (19-22 Nov 2009) and pure:dyne in Pixelache Helsinki (25-28 March 2010).

Pixelache Software of the Year is an initiative by Pixelache Network, started in 2008. The chosen software for the first year was Animata, a live animation software by Kitchen Budapest.

More information: [www.piksel.no](http://www.piksel.no)  
[www.pixelache.ac](http://www.pixelache.ac)  
[www.goto10.org](http://www.goto10.org)  
[www.apo33.org](http://www.apo33.org)

pure:dyne: <http://code.goto10.org/projects/puredyne/>  
APODIO: <http://www.apodio.org/>

## Exhibition

David Elliott  
Pall Thayer  
Paul Klotz  
Andreas Muxel  
Martin Hesselmeier  
Susanna Katharina Hertrich  
Marie-Julie Bourgeois  
Michael Day  
Arjan Scherpenisse  
Ben Woodeson  
Angie Atmadjaja  
gijs gieskes  
Carlos Tricas  
Wolfgang Spahn  
Thomas Gerwin  
Ricardo Oliveira Nascimento  
Ebru Kurbak  
Fabiana Shizue  
Dream Addictive  
Carmen González  
Leslie García  
Arnfinn Killingtveit  
Wendy Ann Mansilla  
Jordi Puig

## Presentations

Letizia Jaccheri  
Richard Spindler  
Eleonora Oreggia  
Danja Vasiliev  
Bjørnar Habbestad  
Jeff Carey  
Roar Sletteland  
Arjan Scherpenisse  
Alexandre Quessy  
Linda Hilfling  
Sébastien Bourdeauducq  
Hans-Christoph Steiner  
Marius Schebella  
Chris 'the Widget' DiMauro  
Kelly Jaclynn Andres  
Thorsten Blum  
Johann Korndörfer  
Carlos Tricas  
Mattin  
Brendan Howell  
Pall Thayer  
Julien Ottavi  
Jürgen Neumann  
Tuomo Tammenpää  
Bengt Sjölen  
Gisle Frøysland  
Angela Plohman

## Live

Emanuele Martina  
Massimiliano Nazzi  
Peter Edwards  
Bjørnar Habbestad  
Jeff Carey  
Yves Degoyon  
Diego de Leon  
Julien Ottavi  
Ryan Jordan  
Ryan James Jordan  
Ralf Schreiber  
Tina Tonagel  
Christian Faubel  
Iohannes M Zmölnig  
Georg Richard Holzmann  
Michael Reinhard Pinter  
Karen Curley  
Servando Barreiro  
Pascale Gustin  
Alexandre Quessy  
Theo Burt  
Patrick Fontana  
Pierre-Yves Fave  
Aelters Emeric  
Oscar Martin Correa  
Germ Soares  
Luca Carrubba  
Ricardo Brasileiro  
Carlos Henrique Paulino  
Oscar Martin  
Cristiano Severo Figueiró  
Simone Bittencourt Azevedo  
Jean Marcell Habib  
Felipe Machado  
Anderson Goulart  
Ricardo Ruiz  
Fabiana Sherine Santos  
Vanessa Jesus  
Tatiana Wells  
Jenny A Torino  
Benjamin A Margolis  
Lee Azzarello  
Mattin  
Andy Bolus  
Dana Kotler

## Workshops

Tom Bugs  
Diego de León  
Alejandro Bizzotto  
Peter Edwards  
Marc Robert Dusseiller  
Andy Gracie  
Arjan Scherpenisse  
Andy Bolus  
Servando Barreiro  
Yves Degoyon  
Alexandre Quessy  
Germ Soares  
Luca Carrubba  
Julien Ottavi  
Jenny Pickett  
Dominique Leroy  
Julien Poidevin  
Ryan Jordan

## Guests

Per Platou (PNEK)  
Vygandas Simbelis  
Anne Laforet  
Torill Haugen (PNEK)  
Beathe C Rønning (PNEK)  
Synne Bull (PNEK)  
Raitis Smits (RIXC)  
Martins Ratniks (RIXC)  
Daina Silina (RIXC)  
Linda Veberė (RIXC)

### Director

Gisle Frøysland

### Curators

Gisle Frøysland  
Malin Barth, Galleri 3,14  
Jørgen Larsson, Lydgalleriet

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Jonas Skarmark  
Martin Woll Godal

### Producer

Hillevi Munthe

### Coordinator

Elisabeth Nesheim  
Piksel Team

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Elisabeth Nesheim

### Sponsors

Norwegian Arts Council  
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Nordic Culture Point  
BKK  
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HOTEL VINBAR BRASSERIE

