

E-WASTE 2.0™

RECYCLISM & BLUE MELON - A CREATION ECOLOGY - E-WASTE WORKSHOP

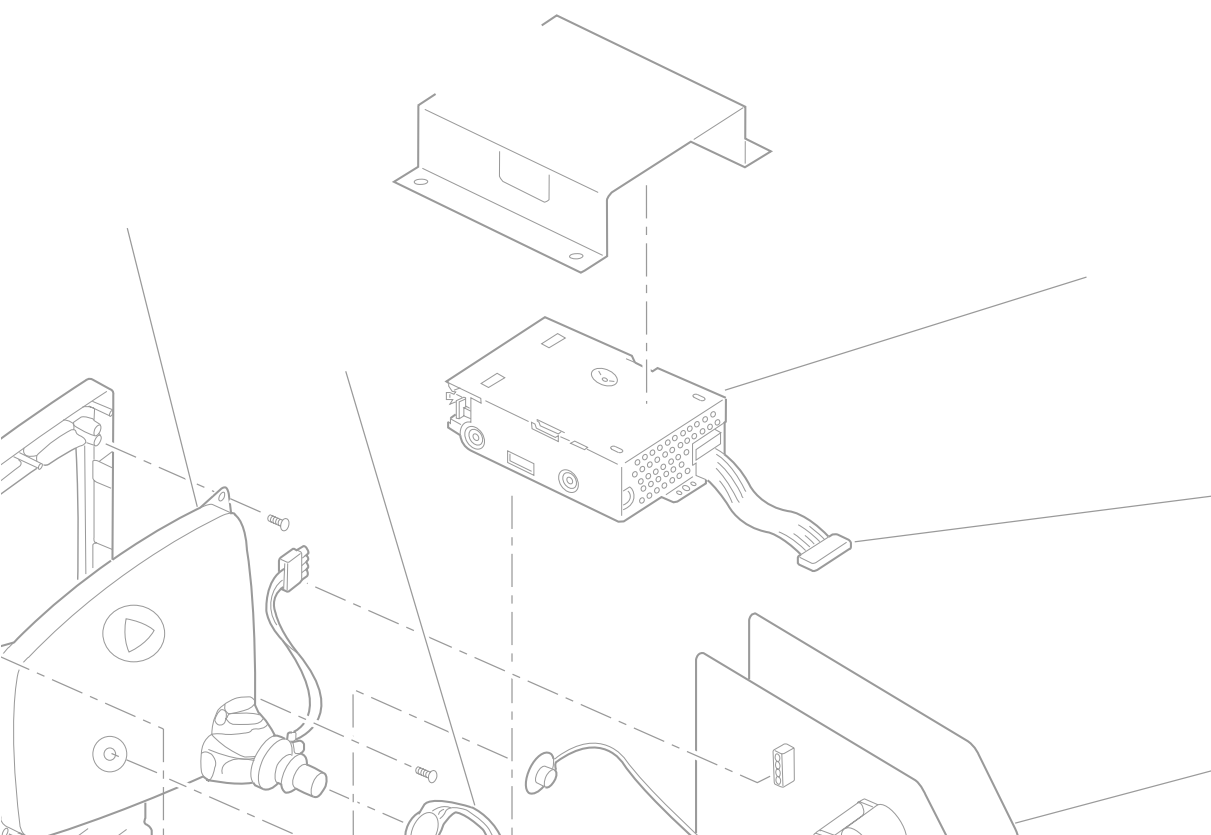
E-WASTE FOREWORD

This Workshop proposal is the result of the collaboration between the artists Benjamin Gaulon (aka Recyclism), Karl Klomp (aka Illogic) and the electronics company Blue Melon. The partners would like to help artists and students to create interactive media and interactive environments. Ben's interactive projects demonstrate the concept of recycling, Karl's projects present the ideas of clear illogics. The products of Blue Melon can support both these activities and focus on creating tools for artists.

Most people who are familiar with the developments in the field of computer electronic may have heard of "Moore's law". Moore's law dictates that the complexity of computer chips doubles each 18 months. As you can imagine this causes a rapid decrease of the value of existing electronics. The shadow side of such an enormous technological progress is the 'production' of endless amounts of electronic waste: e-waste. Furthermore although the economical value of written off electronics is zero, the electronic components themselves can still be useful in other contexts. Reusing electronic parts is thus interesting for two primary reasons: Economical and Ecological. The concept of E-Waste recycling tries to raise an ecological awareness by introducing a «cheap do it yourself» way of recycling.

Our workshops offer the participants to become familiar with basic hardware and software design while at the same time gain hands-on experience on a (short time frame) project. We will also provide the participants with information material about e-waste recycling and/or circuit bending. This workshop is open to participants of different backgrounds and no programming or electronic skills are required. The idea is to start from scratch and create a complete project, which will cover: the concept, the overall design, the electronic design and the interface programming with Max/Msp, Pure Data or Processing.

Since this work will be realized in a short time, we will provide the participants with the necessary tools. These tools include the sensor and actuator interfacing electronics for which we use the BlueSense boards. BlueSense allows one to wirelessly connect a large number of sensors and actuators to a computer. The sensors and actuators are interfaced with Max/Msp, Pure Data or Processing. Depending on the duration of the workshop an introduction to the programming environment itself can be given as well.



WORKSHOP OBJECTIVES

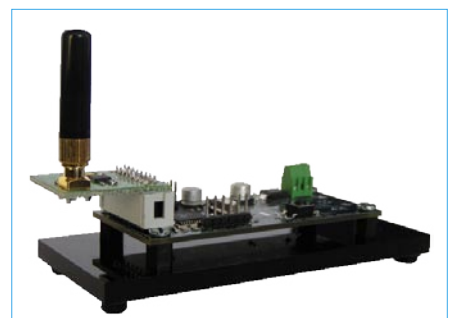
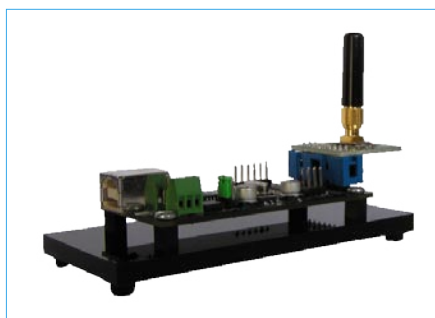
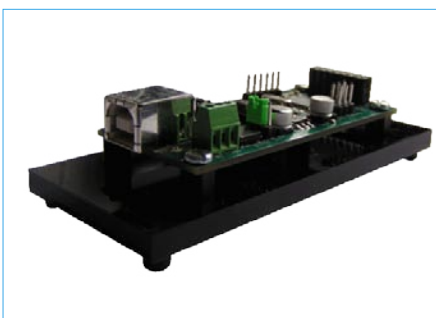
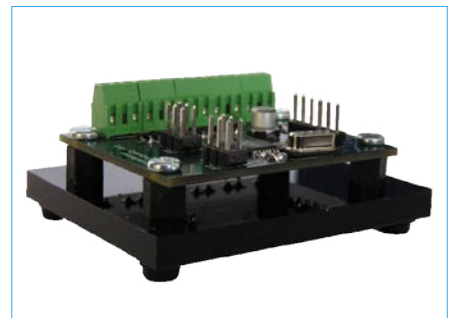
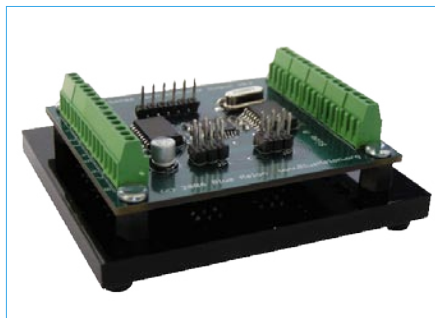
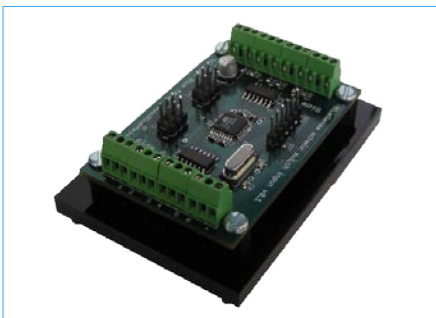
With the E-Waste 2.0 Workshop we try to bring together two aspects: the artistic interest that can be found in hardware hacking / recycling / bending and the issues brought by electronic junk. Actually most of the electronic garbage [mobile phones, computers, etc... highly toxic] is “recycled” in China or India in appalling conditions. More background information about E-Waste Recycling can be found later on in this brochure.

The participants of the E-Waste 2.0 Workshop will be asked to build a project in a limited time. These projects will use electronic junk as raw material [video game consoles/controllers, old midi keyboards, computer’s keyboards, old printers, mobile phones, etc...]. We are encouraging the participants to bring one (or more) item(s) they’d like to recycle [in the limit of their possibilities].

Since the workshop is open to anyone, we will bring some electronic and software tools to control and interface the projects built from electronic Junk (robots, musical interface, interactive environment, etc...). To interface art, electronics and software the BlueSense system will be used. Depending on the skills and interests of the participants we can either focus on Max/MSP, Pure Data or Processing.

WHAT IS BLUE SENSE?

BlueSense consists of set of boards which can be used to interface electronics with popular art programming environments. The BlueSense boards are made to extend art’s interactivity by measuring sensors, switching devices, detecting movement etc. BlueSense sensors (analogue and digital) and actuators (for example servo motors and digital switches) can be used from a large number of popular software packages (among others Max/MSP, Pure Data, Processing, Java, and C#)



BM7001 Bluesense digital switch inputs · BM7002 Bluesense digital outputs · BM7003 Bluesense analog inputs
 BM7501 Bluesense USB router · BM7502 Bluesense USB wireless router · BM7503 Bluesense wireless receiver router

Both concepts of recyclism and clear illogics will be presented by either Karl Klomp or Benjamin Gaulon. This presentation is followed by a more practical oriented lecture by Lourens Rozema (Blue Melon) discussing the use of electronics in art. Afterwards the students will be asked to design a project. During this work the workshop organizers will help the students designing the hardware and software.

This Workshop can be adapted to the student's level and skills. Depending on the time available we can extend the Workshop by a complete introduction to Max/Msp, Pure Data or Processing. The first E-Waste workshop had a duration of two and a half days (five afternoons). This duration proved to be just right. The workshop duration can be extended depending on the size of the art projects. However we advise against a duration of less than two days as this would really be too short to have the students realize their projects.

We can also offer a more theoretical version of this workshop in one or two days, where the student would receive an introduction in software programming (Max/MSP, Pure Data or Processing) together with a presentation of the BlueSense boards after a lecture about e- waste and hardware recycling art. But we think it is usually better for the student to work on a concrete project, which is a good way to learn and leave the student with something finished after the workshop is done.

For more details feel free to contact us:

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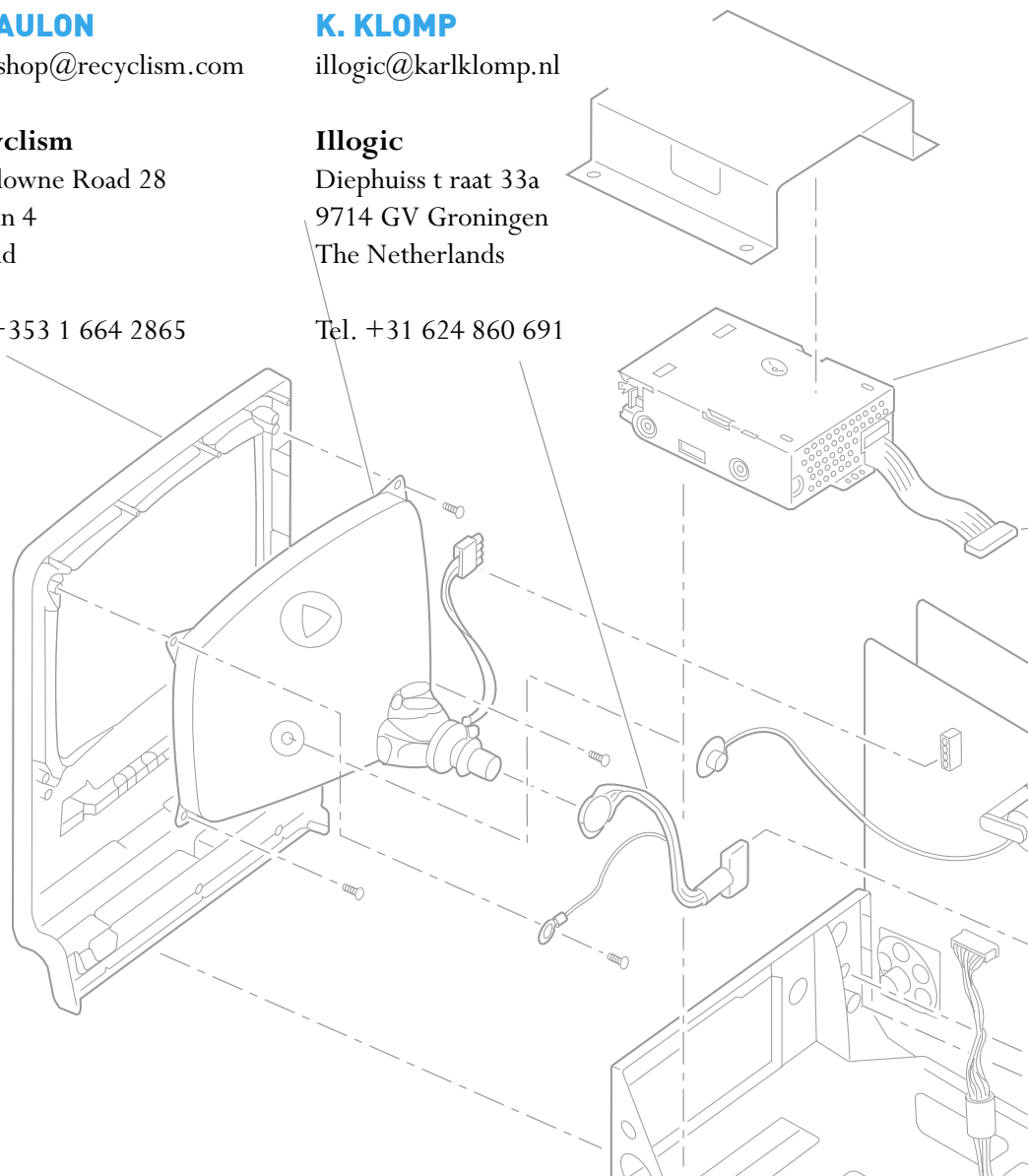
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The Netherlands

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E-WASTE CONTEXT

To better understand our daily environment it is interesting and essential to explore the fields of software programming and hardware design. Our life is full of computers and electronic devices that we trash as soon as they are obsolete. To protect the environment recycling is of paramount importance. Therefore this workshop has different objectives: help the participant and the public to better understand his environment, demystify technology and especially electronics and show the possibilities and importance of e-waste recycling.

WHAT IS E-WASTE?

E-waste is electronic waste. It includes a broad and growing range of electronic devices including large household appliances such as refrigerators, air conditioners, hand-held cellular phones, personal stereos, consumer electronics and computers.

E-waste is hazardous, and it is generated rapidly due to the extreme rate of obsolescence.

E-waste contains over 1,000 different substances, many of which are toxic, and creates serious pollution upon disposal. These toxic substances include lead, cadmium, mercury, plastics, etc. Why does e-waste increase rapidly? As technology evolves rapidly, the electronics obsolescence rate increases exponentially. How much e-waste is there now?

WHERE DOES E-WASTE GO?

The majority of e-waste ends up in our landfills. When disposed of in a landfill, e-waste becomes a conglomeration of plastic and steel casings, circuit boards, glass tubes, wires, resistors, capacitors, and other assorted parts and materials. These heavy metals and other hazardous substances can contaminate soil and groundwater. Most e-waste is dumped in China or India where it is «recycled» under conditions destroying the environment and the populations dealing with those waste.

WHAT CAN I DO?

Delete and Donate - Most people mistakenly assume that their old computer is worthless. The reality is that many schools, community-based organizations and other groups can make good use of your old computer. You should delete all personal information from your old computer and then donate it.

GARBOLOGY

Review on: The Garbage project «the archeology of the US»

A project directed by W. L. Rathje “BURIED ALIVE: The Garbage Glut” was the cover headline of Newsweek, November 27, 1989. “Are We Throwing Away Our Future with Our Trash?” had been the title of the “American Agenda” segment of ABC Evening News with Peter Jennings on December 2, 1988. It was at this time that a new kind of archaeologist, a garbologist who studies fresh garbage, was able to unearth a few relevant facts that began to fill the information vacuum that surrounded our discards. « To archaeologists, in fact, contemporary garbage was a gold mine of information. No society on earth had ever discarded such rich refuse, much of it packaging which identified the contents it once held by brand, type, cost, quantity, ingredients, nutrient content, and more. Yielding to this temptation, between 1987 and 1995, archaeologists from the Garbage Project at the University of Arizona systematically excavated, hand-sorted, measured, and recorded thirty tons of contents from fifteen landfills located across North America -- from California to Toronto and from the deserts of Arizona to the everglades of Florida.

They state that if archaeologists can learn important information about extinct societies from patterns in ancient garbage, then archaeologists should be able to learn important information about contemporary societies from patterns in fresh

garbage. The pieces of pottery, broken stone tools, and cut animal bones which traditional archaeologists dig out of old refuse middens provide a surprisingly detailed view of past life ways, just as all the precisely labeled packages and the food debris and the discarded clothing and batteries in modern middens reveal the intimate details of our lives today. If indeed there are useful things to learn from our garbage -- things which can enrich human lives and minimize the undesirable environmental consequences of the industrialized world -- why wait until we are all dead and buried to find them out? Garbology now! At least that is what Dr. Bill Rathje and a group of students thought when they founded the Garbage Project at the U of AZ in the spring of 1973. Today, Rathje and the Project, including co-director Wilson Hughes who was one of the founding students, are still thinking along these same lines. In other words, the Garbage Project is studying consumer behaviors directly from the material realities they leave behind rather than from self-conscious self-reports ».

Chris Witmore, www.traumwerk.stanford.edu:3455/Symmetry/174

WHO WE ARE?

Benjamin Gaulon is a French Artist who studied Graphic designer for 5 years in France and Interactive Media & Environment for 2 years at the Frank Mohr Institute. Co-founder of the European Holding Company for artist aka de Ponk.

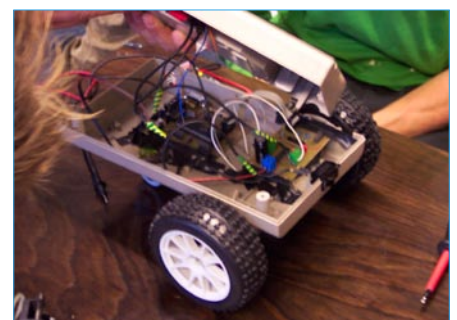
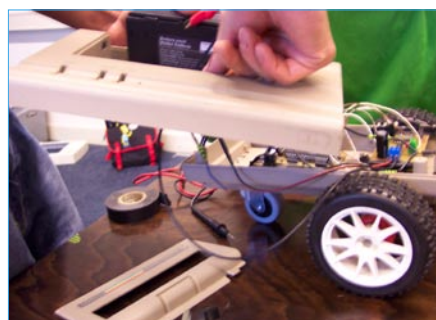
Blue Melon v.o.f.: Lourens Rozema is a Dutch Electronics Engineer. After getting his Bsc. degree in electronics he started as a teacher at the Minerva Academy of Arts (Groningen, the Netherlands). Later he became a teacher at the Frank Mohr Institute, faculty of Interactive Media & Environment (Groningen, the Netherlands). In May 2005 he became one of the founders of the company Blue Melon v.o.f. Refer to the company website “www.bluemelon.org” for more information on Blue Melon.

Karl Klomp is a Dutch Media Artist who studied Interactive Media & Environment s at the Frank Mohr Institute in Groningen. Together with Tom Verbruggen they have setup a Live Cinema performance act focusing on illogic called mnk_toktek. Vjing for Lomechanik Elektronica Collective /Label. He is also a member of the European Holding Company for artist aka de Ponk.

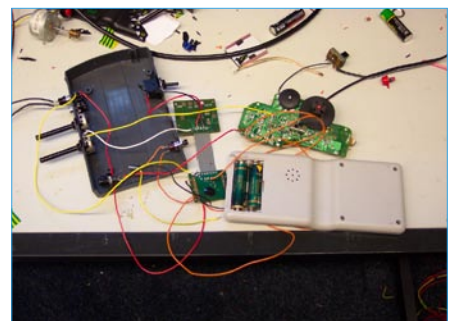
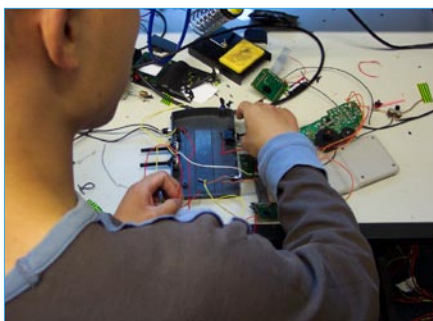
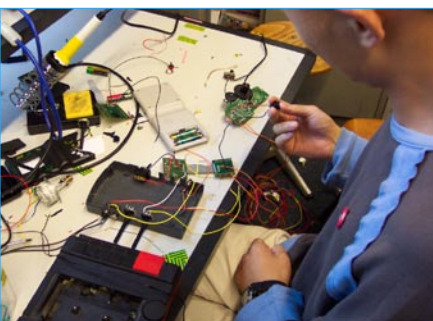
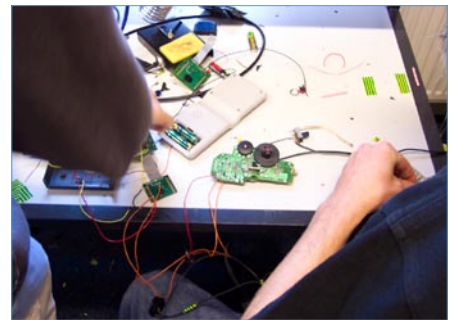
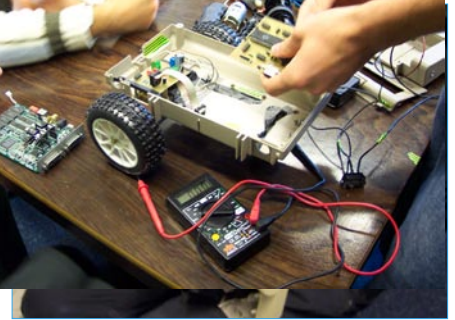
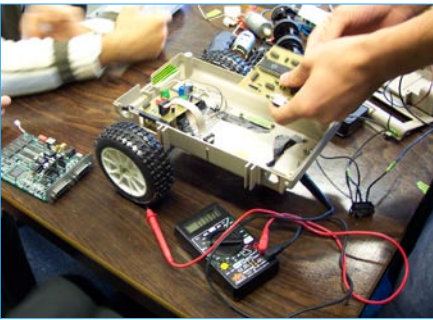
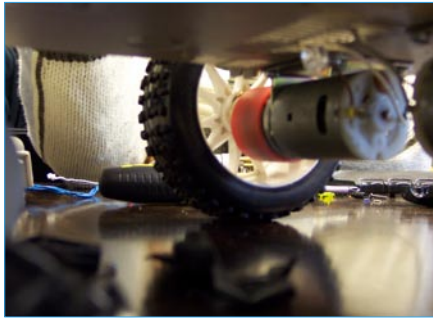
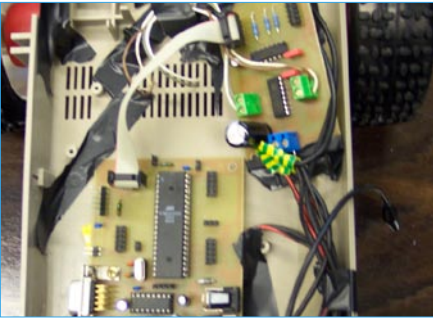
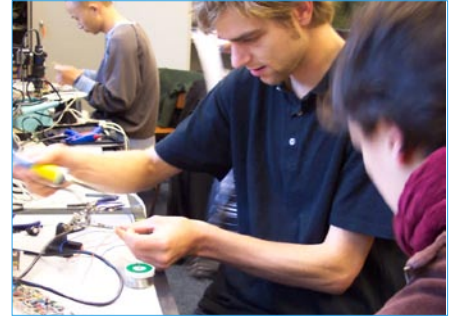
During Lourens’ work as a teacher in electronics at the Frank Mohr Institute he came into contact with Benjamin and Karl. As some of Blue Melon’s products are geared towards artists, Ben, Karl and Blue Melon decided on cooperation and the idea of the E-Waste workshops was born.

E-WASTE 1.0 WORKSHOP

Lourens, Benjamin and Karl organized a first E-Waste Workshop in September 2005 at the Frank Mohr Institute (Groningen, the Netherlands) for first year students (Interactive Media & Environment, Master of Fine Art) .They helped them building robots from printers and scanners engines and parts. Here are some images of the Workshop:



E-Waste Workshop in September 2005 at the Frank Mohr Institute (Groningen, the Netherlands)
First Year students from the Master of Fine Art (Interactive Media and Environment)



E-Waste Workshop in September 2005 at the Frank Mohr Institute (Groningen, the Netherlands)
First year student of the Master of Fine Art (Interactive Media and Environment)

LOURENS ROZEMA BLUEMELON

EDUCATION

2005 BA. in Electronics
2001 MTS Electronics

WORK EXPERIENCES

2005 - 2006 Blue Melon v.o.f.
Electronics & microcontroller application engineer (for example Blue Melon's BlueSense product)
Workshops

2004 - 2005 Frank Mohr Institute
Interactive Media & Environment: programming microcontrollers & electronics (teaching/support)

2003 - 2004 School of Electronics
Domotics: C programming (teaching/support)

2002 - 2005 Art Academy Minerva
Media department: Flash, Microcontrollers & Electronics (teaching/support)

1999 - 2005 InSource BV (own company - internet/e-commerce)
Management of technicians and artist (learned how to communicate on a technical level with artists)

PROJECTS

RoboChallenge

Autonomous robot which has to be able to collect colored balls in certain order inside a limited area.
I have been responsible for all the electronics (for example; power supply, motor regulation and sensing) and also part of the embedded software.

PrintBall

Automated paint ball gun put on a pan/tilt controlled from Max/MSP so that it can shoot pixel images onto a wall. I was responsible for assisting in the assembly of the electronics and embedded software.
More info: www.deponk.com

Accumulator MP3 player

Internet connected MP3 player containing 160Gb harddisk which can directly download music from Internet radio. Also songs can be uploaded using FTP, an internal webserver for over-network control and a RC with GUI to have it run stand-alone.
More info: www.lourensrozema.nl/ax/

PERSONAL PROJECTS

www.LourensRozema.nl

KARL KLOMP ILLOGIC

EDUCATION

- 2006 Master of Fine Art / Interactive Media and Environment Frank Mohr Institute
Institute for Post-graduate studies and research in the Arts and Emergent Media · Groningen · the Netherlands
- 1999 MBO / Social Cultural Work · KAN · Nijmegen · Netherlands
-

WORK EXPERIENCES

- 2005 Smart Space Project (exhibition technician)
- 2004 - 2005 Nederlands Openlucht Museum (av- technician/ de sign)
- 1999 - 2004 Schouwburg Arnhem (theater technician)
-

AV PERFORMANCE · SCREENING

- | | | |
|------|-------------------|---|
| 2006 | Versch | Amsterdam · Netherlands |
| | Sonic Acts XI | Amsterdam · Netherlands |
| | “Tiedoe” | Lomechanik Night · Nijmegen · Netherlands |
| | “Rex” | Sonic Acts XI DVD · Wired Magazine |
| 2005 | State · | X Festival · Den Haag · Netherlands |
| | “Rex” | Audio Office · Groningen · Netherlands |
| | Cynetart Festival | Dresden · Germany |
| | Defka | Assen · Netherlands |
| | Rawpikz! | Nijmegen · Netherlands |
| | Gogbot | Enschede · Netherlands |
| 2005 | ReSort Off | 4x · Netherlands |
| | >50% beeld | Amsterdam · Netherlands |
| 2004 | Cinematiek | Utrecht · Netherlands |
| | MikMak | Nijmegen · Netherlands |
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WORKSHOPS

- 2005 E-Waste 1.0 Workshop · Frank Mohr Institute · Groningen · The Netherlands
- Clear Illogic: AudioVisual [+Tom verbruggen] · Enschede · The Netherlands
- 2002 Vj Workshop [+Mirjam Haspers] · Nijmegen · The Netherlands
-

PERSONAL PROJECTS

www.karlklomp.nl

BENJAMIN GAULON RECYCLISM

EDUCATION

- 2005 Master of Fine Art / Interactive Media and Environment Frank Mohr Institute
Institute for Post-graduate studies and research in the Arts and Emergent Media · Groningen · the Netherlands
- 2002 Master of graphic design (DSAD: Diplôme Supérieure d'Arts Décoratifs)
Ésad, École Supérieures des Arts Décoratifs de Strasbourg · France
- 1999 B.A Visual Communication Ésaab · École Supérieure d'Arts Appliqués de Bourgogne · Nevers · France
-

EXHIBITIONS - FESTIVALS

- 2006 Art Rock - St Brieuc - France
Museum Night - Stedelijk Museum - Amsterdam - The Netherlands
Metamorphosis - W139 - Amsterdam - The Netherlands
'Two o'clock fallout' an EV+a Fringe Event - Limerick - Ireland
- 2005 Festival NumériPop - St Brieuc - France
Ososphere Festival - Strasbourg - France
Axis Festival - Assen - The Netherlands
Exhibition OI - Gallery Sign - Groningen - The Netherlands
Wrestling Baby Blast - ASCII Art Software - Strasbourg - France
The Res Last Crewsaders JamSession - Frank Mohr Institute - Groningen - The Netherlands
- 2004 Festival POP UP 2.10 - Holodeck - Groningen - The Netherlands
Festival Cite Rap N.6 - Res Hip-Hop Jam Session - St Brieuc - France
Festival SonicActs X Unsorted - Amsterdam - The Netherlands
Mythologies Exhibition and Residence - KunstHuis SYB - The Netherlands
Online Exhibition No/Copy/Right - Jerusalem
Online Exhibition Turbulence - USA
- 2003 De Pong Game Street Performance - Groningen - The Netherlands
Collective de Ponk Scenography and Design - La Passerelle - St Brieuc - France
Éspece d'Interzone Collective Stall - La Chaufferie - Strasbourg - France
Co-Creation of The Lab - Independent Contemporary Art Gallery - Strasbourg - France
Co-Creation of CatchasCatchCan - Wrestling Magazine - Strasbourg - France
- 2002 In Situ Action Men's True - Strasbourg - France
Signe de la Collaboration et de la Résistance - Curator Assistant - Strasbourg - France
La Fée Chantier - Street Performances - Strasbourg - France
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LECTURES - WORKSHOPS

- 2006 Upcoming Recyclism Lecture - National College of Art and Design - Dublin - Ireland
Recyclism Lecture - École Supérieure d'Arts Appliqués - Nevers - France
ShowCase Workshop - Part I - École Supérieure d'Arts Appliqués - Nevers - France
- 2005 E-Waste 1.0 Workshop - Frank Mohr Institute - Groningen - The Netherlands
-

PERSONAL PROJECTS

www.recyclism.com

BNJMN AKA RECYCLISM - WHAT IS RECYCLISM?

« Because of my age [I'm born in 1979] I grew up with computers, samplers, synthesizers, video games [and the first 8 bit games], mobile phones, internet, microwaves, etc... So for me all those things are part of the tools and the technologies I often use. In that sense there is "nothing new". Not that I can say I know all about computers, however I am sure that these technologies are more natural to me than they are to my grandmother. In that sense I think I am free to be critical toward computer and software technologies.

When I studied graphic design it became more and more important to better understand digital technologies at their core [programming and electronic]. I can't imagine using a technology or a tool without knowing more about it. By familiarizing myself with the inner workings of a particular tool, I feel I can obtain maximal results, while at the same time better judge the tool's usefulness.

I think this is very important, if you consider that electronics and computers surround us and especially as they are the tools and media I'm using daily. Through my works and especially with the digital recycling website and the Res® I'm exploring the creation process and possibilities and constraints offered by digital technologies. Through occidental art history there is an obvious influence between developments of technologies and art. This influence works in two ways: art can influence technologies and technologies influences art. In that sense it was logical for me to explore the possibilities of contemporary technologies into my work. »

KARL AKA ILLOGIC - WHAT IS ILLOGIC?

Clear Illogic or circuit bending is the very tangible practice of repurposing cheap electronic devices into instruments that behave non logical. Such instruments can be used to create sounds and visuals which are alien, noisy and very personal. The manufacturing of instruments containing chance electronics requires no outstanding theories or electronic knowledge. As such using chance electronic instruments would be the least pretentious approach to making music. On the other hand the use of circuit bending has had a great influence on the music scene and visual arts because of its great potential. The endless possibilities of making sound and visualizations from second hand or cheap electronics are a potential source for dj's or vj's that want to create their own content from a undefined area of sound and imagery.

Circuit bending or Illogic's is the first step towards working with electronics. It's easy, cheap, expressive, tangible and will break your fear for electronics. Electronic design has created a sense of apprehension in its use. If you don't understand the language of electronic circuitry it could feel intimidating to work with it. Circuit bending changes all this in a second as it transforms a circuit into a friendly and immediate "canvas". A cheap toy like a radio (€ 2,55) can be transformed into a synthesizer with unlimited options to create or transform the sounds. Not by outstanding theories or electronic knowledge but by touching it!

KARL KLOMP - ILLOGIC

We become what we behold. We shape our tools and then our tools shapes us. (McLuhan)

Whenever you see a new toy, device or apparatus in the shop one can rest assured that the company which made it is already working on another, better version. Moore's law does not only apply to computers alone, but for every piece of technology. It's essential to explore technology we give to our kids or use every day and be critical about it. The technical boundaries of a device should be explored for personal or artistic expressions through that piece of technology. Chance electronics [illogic] shows the background of technology that is important in times where so many media have a confusing use. Through this area which is often undefined we can convey meaning and use it as a way of expression.

Controlling technology is an illusion and is only as perfect and efficient as the humans who build the technology. New techniques are often discovered by accident or by the failure of an intended experiment.

Manufacturers often give tools clear boundaries that limit our creativity. By intentional 'misuse' of a tool you can reveal its background and make it possible to search for meaning in this often undefined area of sound and image.