

ENTORCHADOS / BINARIOS

Programed Dis-Obsolescence

Entorchados / Binary Workshop
The Des (Obsolescence) Programmed
20 hours

<https://www.facebook.com/Entorchados/?fref=ts>
<http://entorchados.net/>

The creative possibilities using microcontrollers have launched a revolution of contemporary thought. As every evolutionary process with the passage of time has become more complex.

The Attiny AVR Microcontrollers allow us to explore extensive possibilities of sound and programming by resorting to technological minimalism.

at Binary Workshop we are using two techniques, one archaic and the other modern to construct digital circuits, understand the technological processes and build sound artifacts in a kind of Programmed Des-Obsolescence

Wire Wrap is a technique in disuse but not obsolete. It was paramount for the pioneers of Engineering in the design and construction of electronic circuits.

The workshop seeks to reactivate the use of this technique and tools to build permanent prototypes of electronic circuits. With this technique, no chemicals are used to reveal plates and the use of soldering irons is minimized with excesses of smoke and heat, saving energy resources for the benefit of the environment. The trend in process miniaturization and digitalization and programmed obsolescence is a market problem that we counteract by promoting these techniques

With the wire wrap technique, we will make Micro Sound Modules as semi-permanent prototypes of digital electronic circuits, using the Attiny 85, an AVR microcontroller of the Atmega family, which despite its tiny size and memory, packs a lot of functionality with its analog inputs and outputs. as digital, it is compatible with ARDUINO's open source programming environment

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Theoretical and practical workshop.

An analysis of the different processes in the use of these microcontrollers an artist using them Review of the electronic component and schematic symbols, Review of the historical projects developed with the aTTiny family construction and programming

Among the modules that we will build

- 555vsATTiny (light and sound)
- 1Bit8bit
- byteByte
- SDwav player
- pitchshifter

The Autoral entorchados workshop has been carried out among other places

- Laboratorio de Ciudadanía digital Centro Cultural España
- Bogota Robotics: Bogotá Colombia Platform
- Diplomado 7 CMMAS Morelia Michoacán
- Museum Universitario Del Chopo
- MACO Museo de Arte Contemporáneo Oaxaca
- Anilla Cultural Museum of Contemporary Art Santiago de Chile
- Diplomated Sound Art Border Cultural Center
- MAMM Museum of modern art Medellin
- MAZ art museum of Zapopan
- FARO ARAGON

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Wire Wrap is a technique in disuse but not obsolete, it was paramount for the pioneers of Engineering in the design and construction of electronic circuits. Entorchados.net is an authorial workshop that seeks to reactivate the use of this technique and tools to build permanent prototypes of electronic circuits

With this technique, no chemicals are used to produce electronic boards and the use of soldering irons is minimized, with excesses of smoke and heat, saving energy resources for the benefit of the environment.

The wire wrap technique is simple, logical and precise, once knowing it, you can build any circuit reading a schematic. The design of the electronics of the first satellites and spacecraft was using this technique. The prototypes can be permanent and also could be modified. There are many open source schematics on the internet for a huge quantity of electronic circuits.

Entorchados .net is a workshop in which you will learn the principles of electronic functioning and symbology of the components, reading of schematics and construction of sound circuits with which you will acquire theoretical and practical knowledge to experiment empirically with DIY electronics.

The learning curve of the workshop is fast and intuitive.

at entorchados.net workshop you will learn the symbols of the electronic components and the meaning of the schematic designs, the function of resistors, capacitors, diode transistors, integrated circuits, frequency, signal, waveform, ohm law, etc. We will use this technique in the construction of some electronic sound circuits, as an analysis of the tools and techniques that allow autodidacticism in the construction of different electronic systems, analog and digital to use in artistic experimentation, a technique that seeks to provoke Self-taught knowledge and DIY in electronics. On the internet there is a large number of schematics for all types of electronic circuits, we will review sites that have an emphasis on the sound aspect of electronics.

Entorchados is for all public with interests in the current developments of art, technology, and DIY, The wire wrap workshop will be based on the construction of Modular Micro and LowFi Oscillators for sound experimentation

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Duration: practical theoretical workshop, 20 hours 10 to 15 students
interest in electronics, programming, sound and music
experimental, device construction

Material: Kit with materials needed to build the circuits

Space: Salon with good lighting, Projector of 3000 lumens or
Screen min 40", sound system

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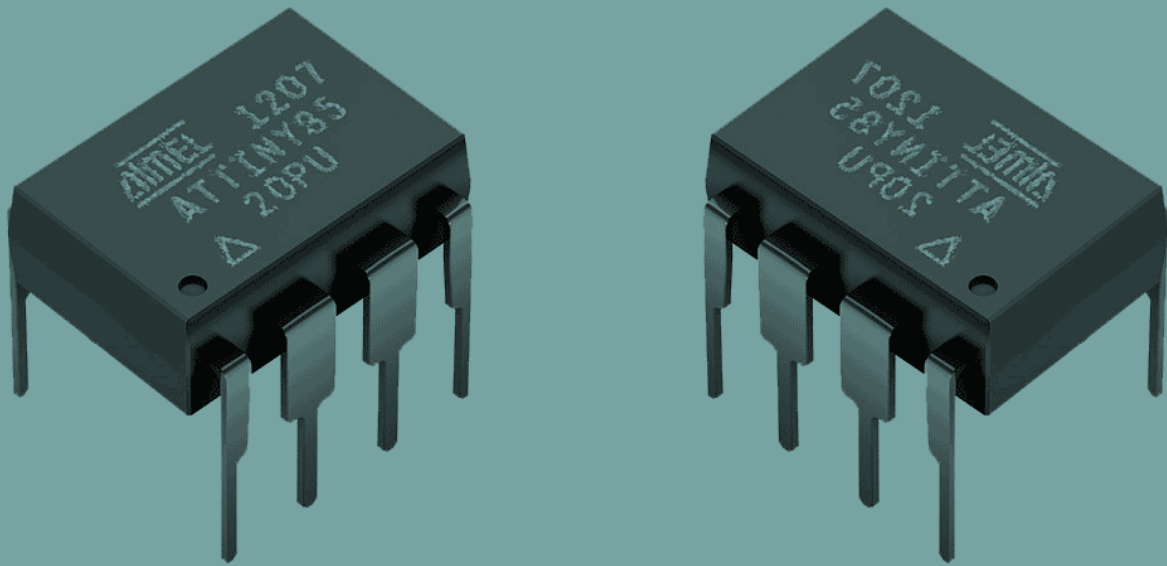
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Arcangelo Constantini

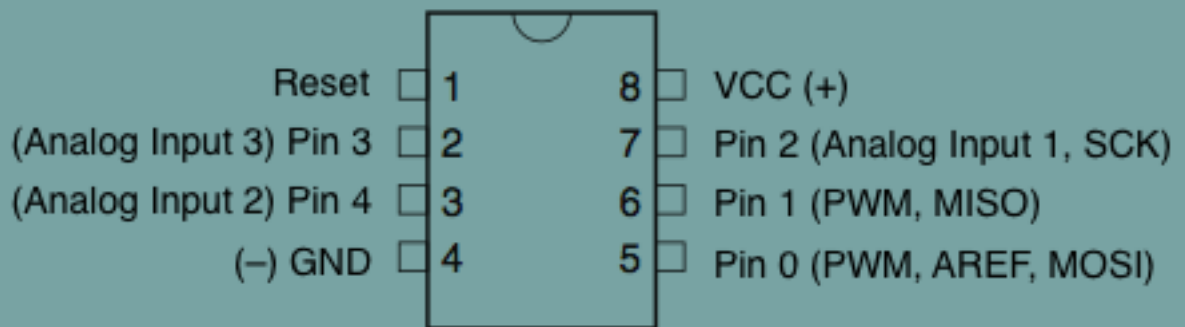
Transdisciplinary artist, who uses a series of experimental resources to raise speculative hypotheses about nature processes. Artistic inventor, technological hacker, experimental Lauder. Within his artistic practice is the construction of sound and visual artifacts for performative acts. He has been curator of the Tamayo Museum, of the electronic art Bienial Transito_MX, of the inaugural events of the National Music Library and of the Centro University, Director of the independent space Un-Cuarto and of the FACTO festival, together with Marcela Armas Coordinates the Meditatio Sonus Cycle , Obtained the BEca ROckefeller / Macarthur, PAPIAM of the CENART, LIFE of the Telefónica Foundation, National System of Creators FONCA,

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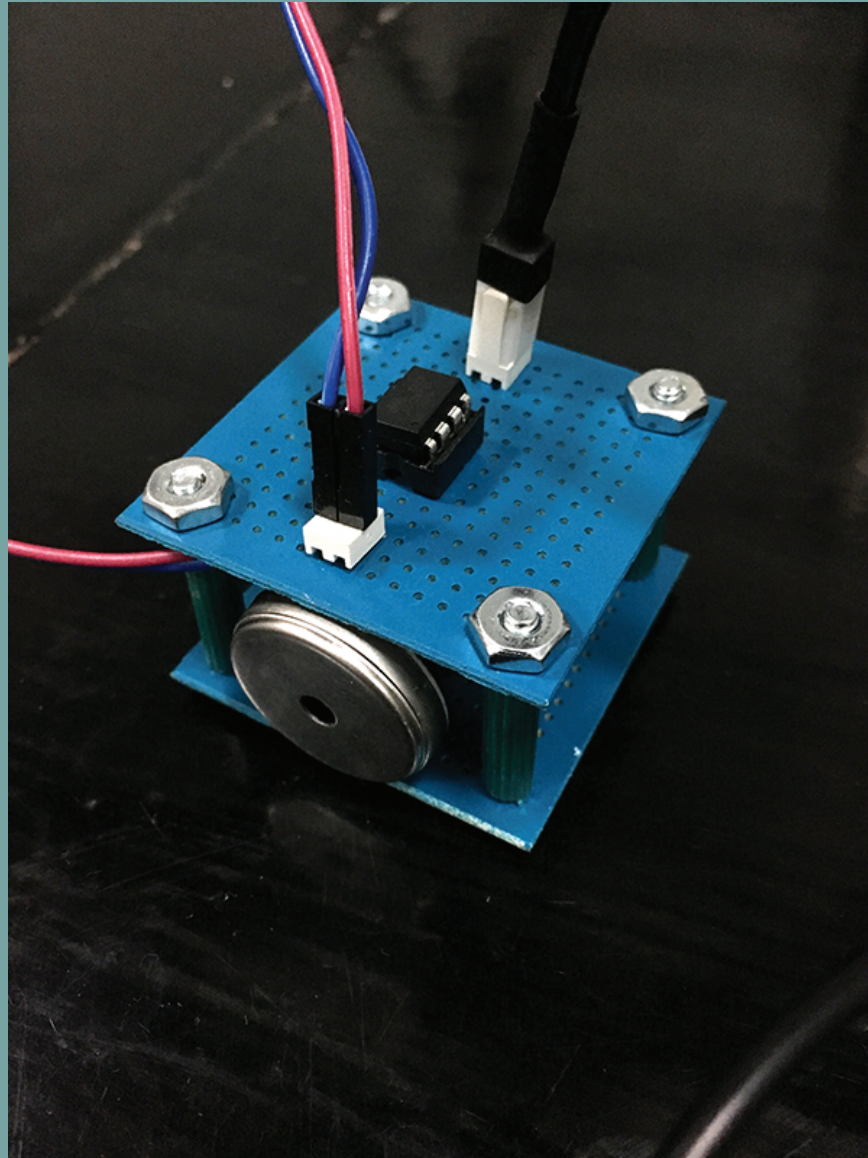
ATtiny45 / ATtiny85



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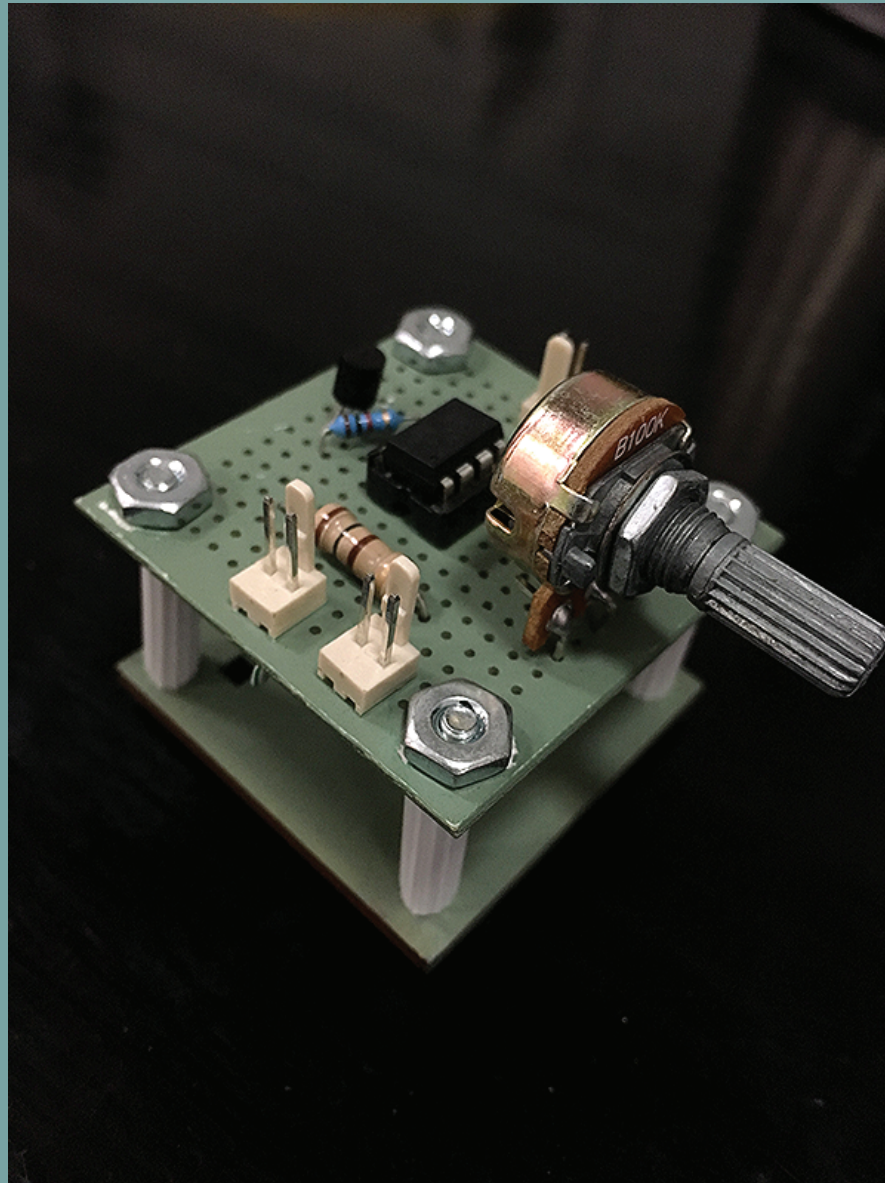
MicroModulo 1 Bit



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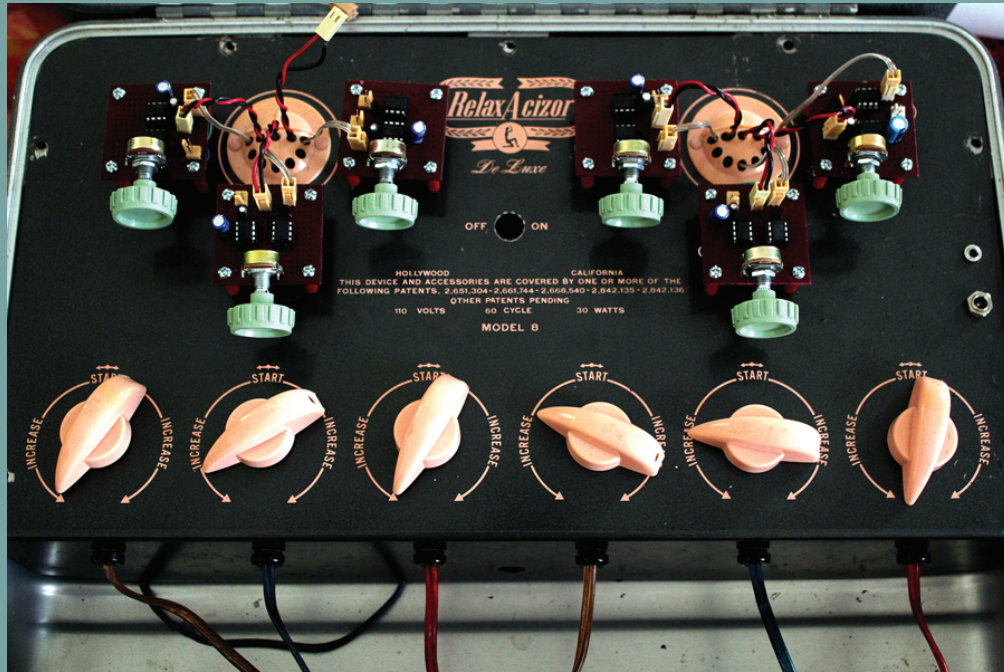
MicroModulo Persistencia Retiniana



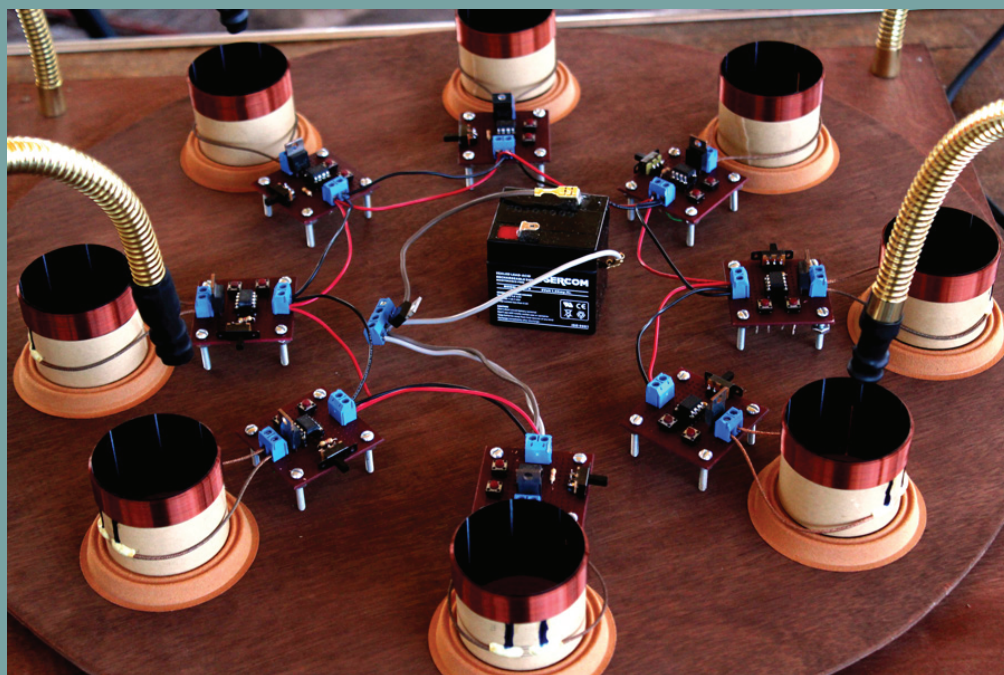
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Proyectos desarrollados con aTTiny85



<http://www.arc-data.net/sonoshock/SonoRelaxAcisor>



<http://www.arc-data.net/8x8ohm/1bit/>