



## Lowcore: For Hacked DVD Player



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*Lowcore: For Hacked DVD Player* is a live electronics performance. The instrument used, is a portable DVD player, subjected to hacking: The pins of the circuit of the DVD player have been extrapolated, so that they can be touched with the skin of the fingers of the performer. The amount of pressure applied with the fingers on the pins and the level of sweating of the hands will change the path of the electrical signal inside the circuit, generating different sound results and different visual interference on the screen of the DVD player (no screen projection of the DVD player is provided). The performance aims to explore the timbral and gestural potential of this hacked object, also subjected to live electronics processes, in an exploratory-performative attitude. The human being, while becoming a portion of circuit and a part of conductor that can close the circuit according to his will, retains its human sweating component. This feature modifies the signal and generates musical gestures on the basis of a totally humanized organicity. The DVD player, assembled and recycled as a new tool, keep the memory of its original functions clear. Once suspended their ordinary functioning, they can be seen under another perspective, acquiring a sound potential that is expressed through contact with the skin of the performer.

**Keywords** Hardware Hacking, New Instruments for Musical Expression, Residual Instrument, Aesthetics of Error, Residual Sound, Circuit bending.

**DOI** [10.34626/2024\\_xcoax\\_041](https://doi.org/10.34626/2024_xcoax_041)

### Project, process and operation

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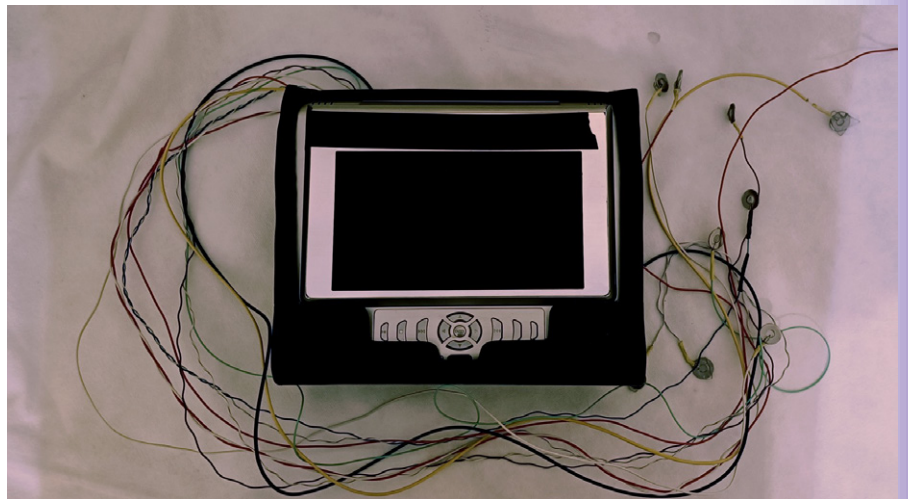
be touched with the skin of the fingers of the performer. It is part of a project consisting in a series of sound composition; electronic performances and interactive audiovisual installation called *Not Recyclable Dry Waste*. The project is based on skin conductance response applied on recycled and hacked everyday electronic objects. These electronic instruments are played through the contact of the performer's skin with the circuit of the hacked object, generating complex signal variations. Initially, an analysis is carried out on the electronic components that are in the circuit of the chosen everyday object. The pins (contact points) of these electronic components are extrapolated from the object, so that they can be easily touched with the performer's hands. Depending on how many and which pins are touched by the fingers of the performer, the circuit will be closed differently, generating signal variations. This approach of computation without computer and direct and physical contact by the performer on the components that modify the electrical signal of the instrument highlights a circularity of cause and effect that emerges during the exploration of the system consisting of man-machine. The variables that the performer determines are the "what" is connected and the "how much" is connected. The amount of connection, the "how much", depends on the value of conductivity of the skin at the time of contact and this is strongly conditioned by the performance itself, in the form of sweating, which changes more or less also according to the sensations and thoughts that emerge during the performance. These two variables process the signal and determine the shapes and qualities of the resulting sound. This signal will then be taken into audio, generating a wide variety of complex sounds. Here an example of an [Hacked Mouse](#). Moreover, if the chosen "everyday object" also has a visual part in its apparatus (such as a screen, a projector, a portable dvd player) then the complex variations of the signal will also result visually. See a short example of an hacked DVD player: <https://www.youtube.com/shorts/Ji5iEiU4l0U?feature=share>. In *Not Recyclable Dry Waste* the research focuses on the timbral and gestural dynamics generated on the signal by the skin conductance response. The conductivity of the skin is modulated according to the level of sweating and the level of pressure when the circuit is touched. In fact, the level of sweating of the skin and the level of pressure applied with the fingers on the contacts (pins), radically changes the way the signal moves in the circuit. In this context the performer acts directly on the configuration of the network of connections with the aim of altering its internal dynamics, generating complex signal variations and bringing out different sound forms. Here an example of an hacked remote controller: <https://www.youtube.com/shorts/6bzxsiSYOhGk?feature=share>. Research can also adapt to interaction with acoustic instruments: *Serracavo: for accordion and hacked DVD player* is the result of this research, born from the collaboration with Carlo Sampaolesi (accordion and electronics): <https://youtu.be/rGV6LPuWoqU>.

In *Not Recyclable Dry Waste* the objects, assembled and recycled as new tools, keep the memory of their original functions clear. Once suspended their ordinary functioning, they can be seen under another perspective, acquiring a sound potential that is expressed through contact with the skin of the performer. An interesting aspect is how the human being, while becoming a portion of circuit and a part of conductor that can close the circuit according to his will, retains its human sweating

**Fig. 1.** 60° Festival Nuova  
Consonanza - Mattia Parisse during  
execution of Lowcore (2023,  
for hacked DVD player and live  
electronics. Photo by: Claudia  
Ciceroni.



**Fig. 2.** Hacked DVD Player.



**Fig. 3.** Hacked Mouse.



component. This feature modifies the signal and generates musical gestures on the basis of a totally humanized organicity.