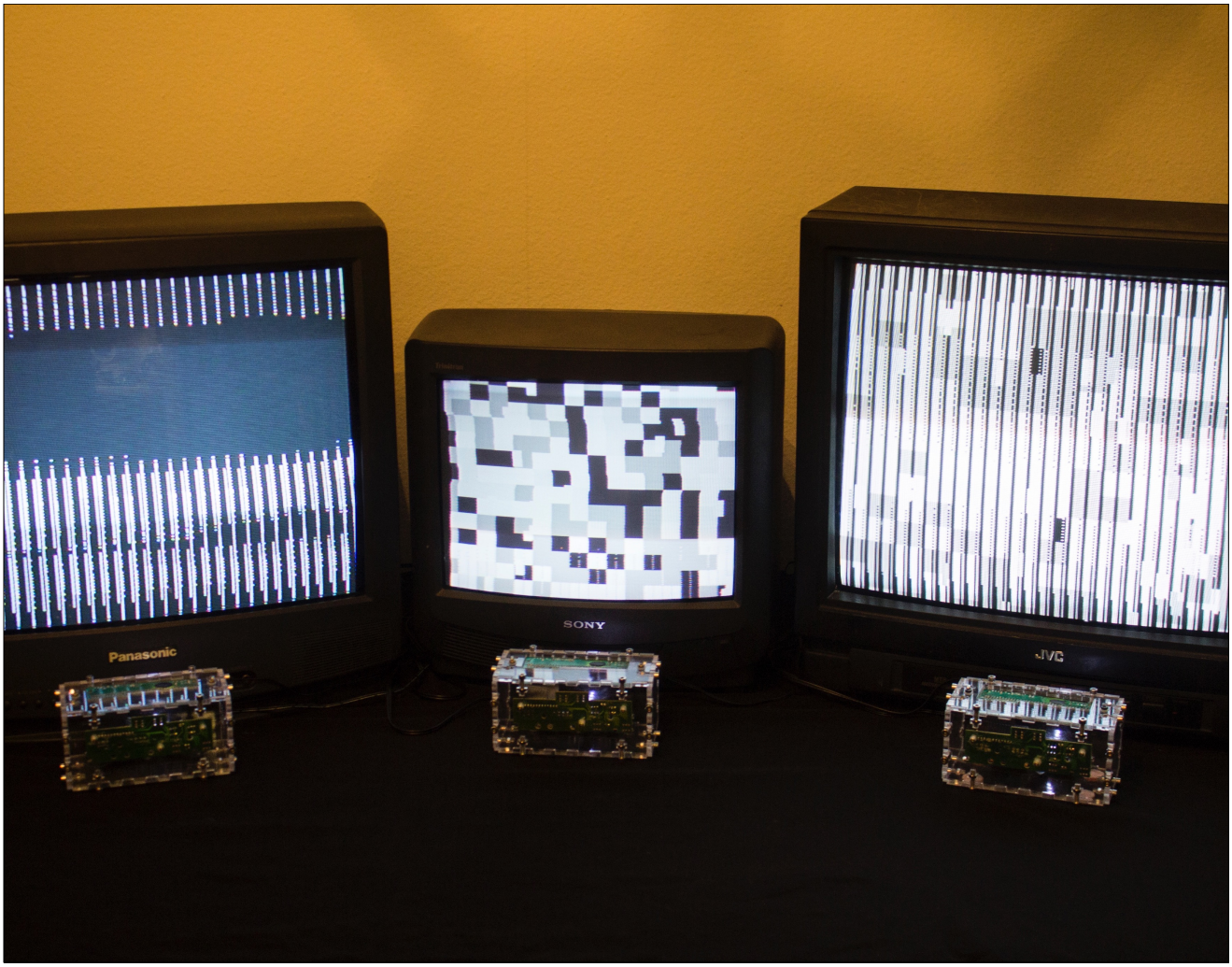
NATHAN VILLICAÑA-SHAW



Cathode Ray Tubes

Prepared for: NIME 2016
Prepared by: Nathan Villicaña-Shaw, Artist
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COMPANY NAME

Project Description

Cathode Ray Tubes explores unconventional approaches for human-circuit interaction by eliminating all sensors, buttons, knobs and all other “middle-men” between the circuit and the user. It empowers us to utilize the natural electrical properties of our bodies to impinge the normally hidden circuitry that we are surrounded by, but removed from, in our daily lives.

Four CRT TV’s are set up in a semicircle each on its own small table. In front of each TV is an audio/video synthesizer with its circuitry exposed. The TV’s and the synths are all connected in one large feedback loop, with each synth reacting to the electric field emanating from the TV it is placed in front of. Gallery goers are invited into the space to discover that their bodies natural electrical properties are all they need to begin seizing control over the installations a/v feedback loop.

With their circuitry unveiled, and with no software to guide their computational logic, the Retrons becomes very susceptible to electro-magnetic interference. The Retrons are effectively transformed into 8-bit a/v synthesizers that generate their output based on the electrical noise present in the circuit. This configuration creates a resting state of constant flux as all the Retrons and TV’s are feeding off of each others electrical fields. The entire system has been designed emphasizing instability and assail ability so allow for the human body to become an effective controller (due to its inherent electrical properties).

Acts such as waving a hand in front of a TV or Retron, touching a TV or Retron, moving a Retron’s angle or distance from a TV and combinations of the above will produce different effects that resonate throughout the feedback loop. If multiple people are in the gallery space, the installation scales nicely as the number and complexity of the effects produce even more drastic results in the Retron feedback loop. The installation is designed to create a space of discovery that invites viewers to forge their own personal experience with the environment and its circuitry, and the goal of the installation is not that each gallery goer manipulates the feedback loop in every possible way, but rather that most gallery participants explore a relationship with the circuitry that feels unique to them.

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Artist Bio

Nathan Villicaña-Shaw is a new media artist whose works explore and question our social-personal relationship with technology. Interested in defining new boundaries for human-circuit interaction, Nathan works blend circuit bending, hardware hacking with creative coding and programming. Nathan spends most of his time creating interactive installation art, composing, hacking and working as a Python developer and creative technologist. Nathan is a MFA candidate from the MTIID department at CalArts. His research focuses on developing and working under the philosophy of OpenHacking; a discoverist framework for art creation via the exposure of electronic systems for subversive injection.

Space/Light Requirements

- As dark of a space as possible
- 9’ by 9’ minimum room size,
- Room geometry is not important as long as width and height are both at least 7’
- Can be shown in same room as other pieces but will take up approx. 9’x9’ of square footage
- Audio volume is scalable

Technical Requirements

- 10 amps of 120v AC power
- The installation requires four CRT TV’s. The TV’s should be black and have RCA video jacks. The TV’s should be 19” or larger and all the TV’s should be of the same make and model(if possible).

Low Tech Requirements

- The installation requires four small tables or TV stands for the TV’s and video synthesizers to sit on top of (about 6 square feet for each table).