Demo's & Carousels

This book contains a repository of different set-ups used for educative demo's and carousels. It give's workshop educators and participants the opportunity rebuilt or study the code, software and hardware of a set up.

- Interactive "painting" controlled with OSC data from phone to Isadora
- Conductive soil, video projection and Makey Makey
- Interactive book pages with projection and Bareconductive
- Virtual drumkit with mocap (NIET AF)
- 4 seasons Virtual Experience (niet af)

Interactive "painting" controlled with OSC data from phone to Isadora

Description:

A set-up with an interactive "painting" and light fixture named "Van Gogh heeft een oogje op je foon" controlled by the smartphone sensors with ZigSim to OSC, Isadora, DMX light and a projector. The installation demonstrates the use of smartphone sensors within in a creative context.

Required components:

- Smartphone with Zigsim app
- Computer with Isadora (Isadora patch via this link)
- Projector or display
- Isadora patch and media files: Files.zip

Order from input to output:

- Smartphone sends OSC data using the ZigSim app:

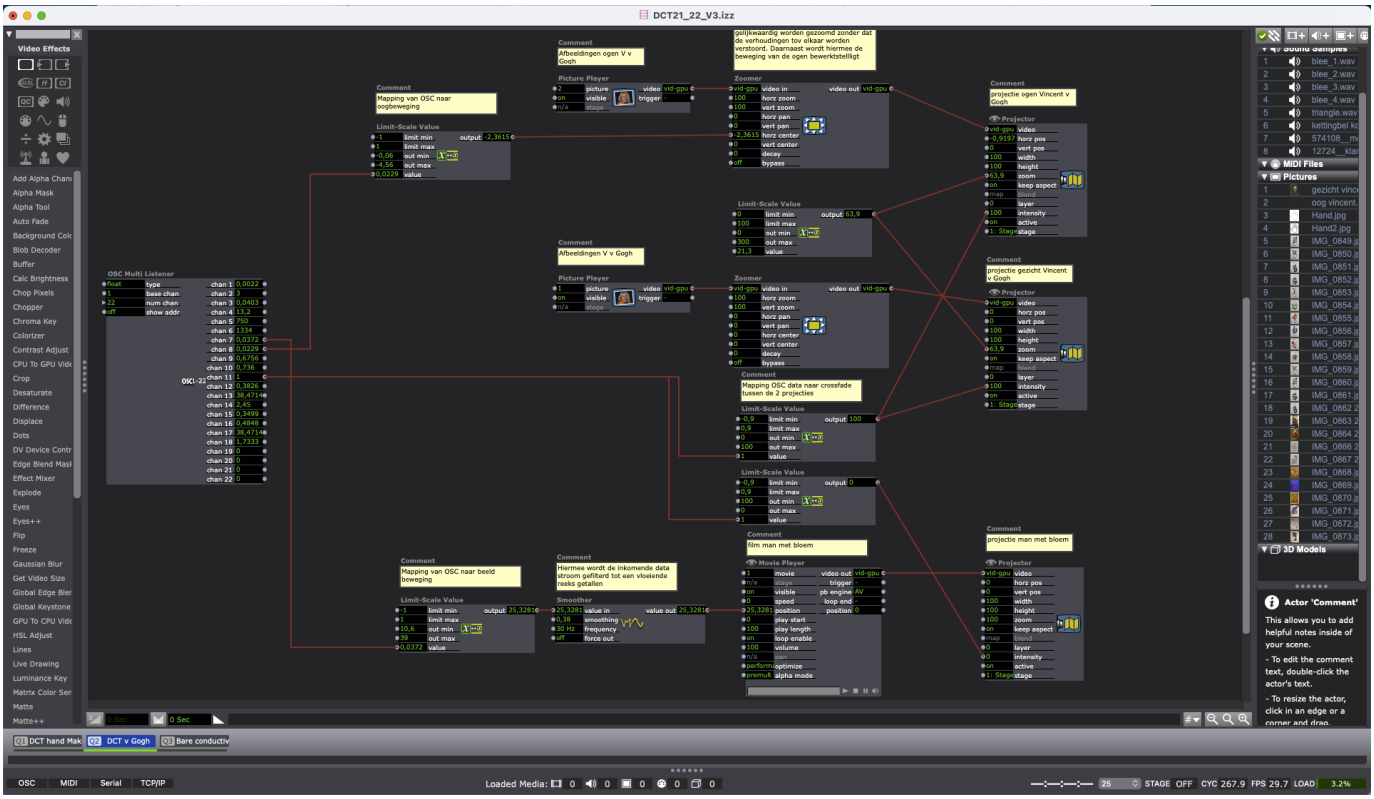
- OSC data is received by the visual programming environment Isadora.
- In Isadora, the data from phone rotation and finger position on the touchscreen is converted into, among other things, eye movement, fade between projections and scrolling through frames.

- Gazebo was used as a bridge to convert telephone data to DMX for controlling theater lighting.

Most recent versions can be found here. More info here.


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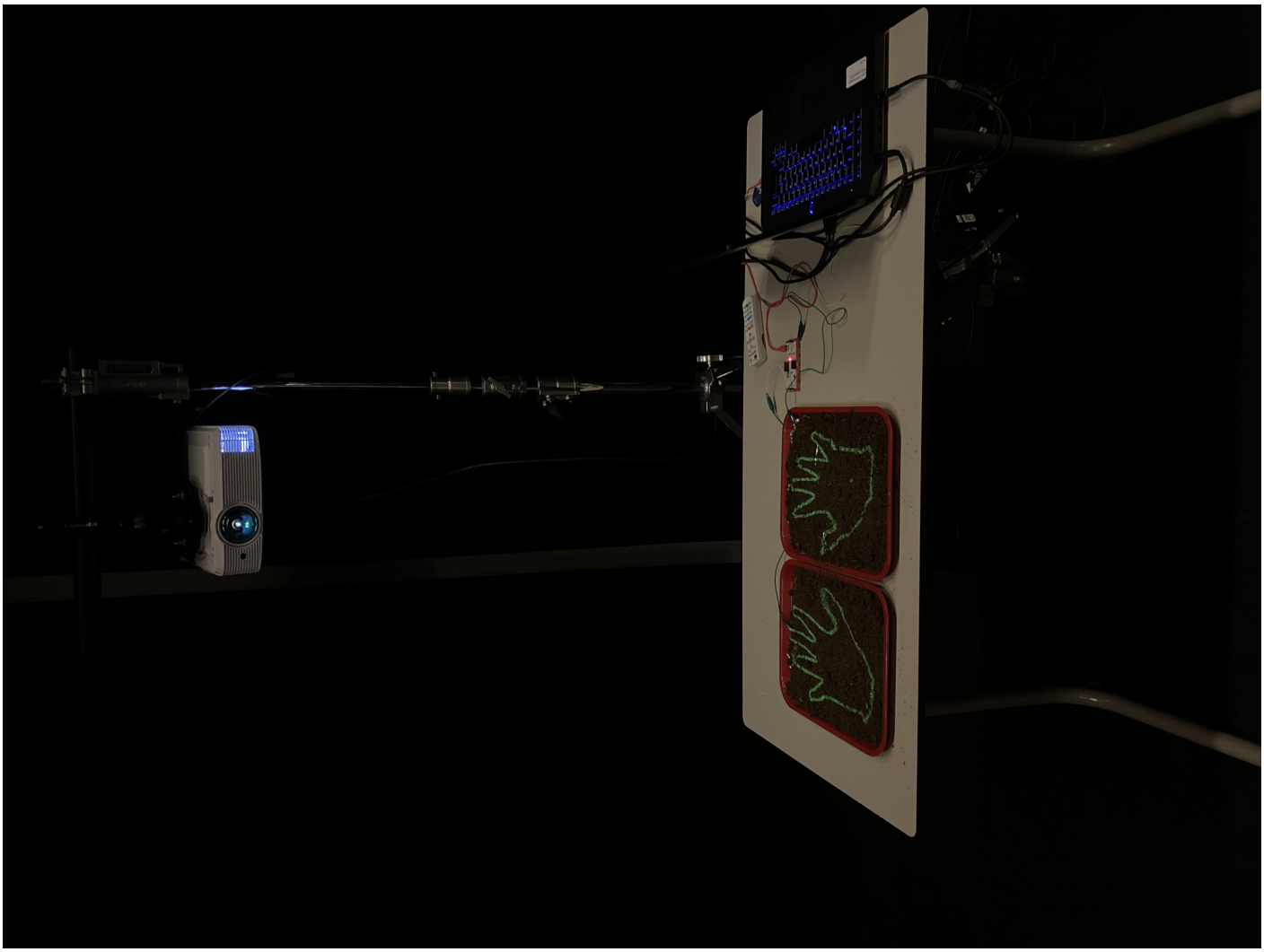
https://www.youtube.com/embed/kn_O34BuWag



Terminology:

- OSC
- DMX
- Patch

Conductive soil, video projection and Makey Makey



Description:

A demo set-up named "Groene vingers" demoing the Makey Makey board by utilising soil as a conductive material to switch between between two images. The switching and image handling is done within Isadora.

Required components:

- 2 trays with moist soil
- Makey Makey board with alligator clips and aluminium foil
- Computer running Isadora (Isadora patch via this link)
- A projector pointing at the table

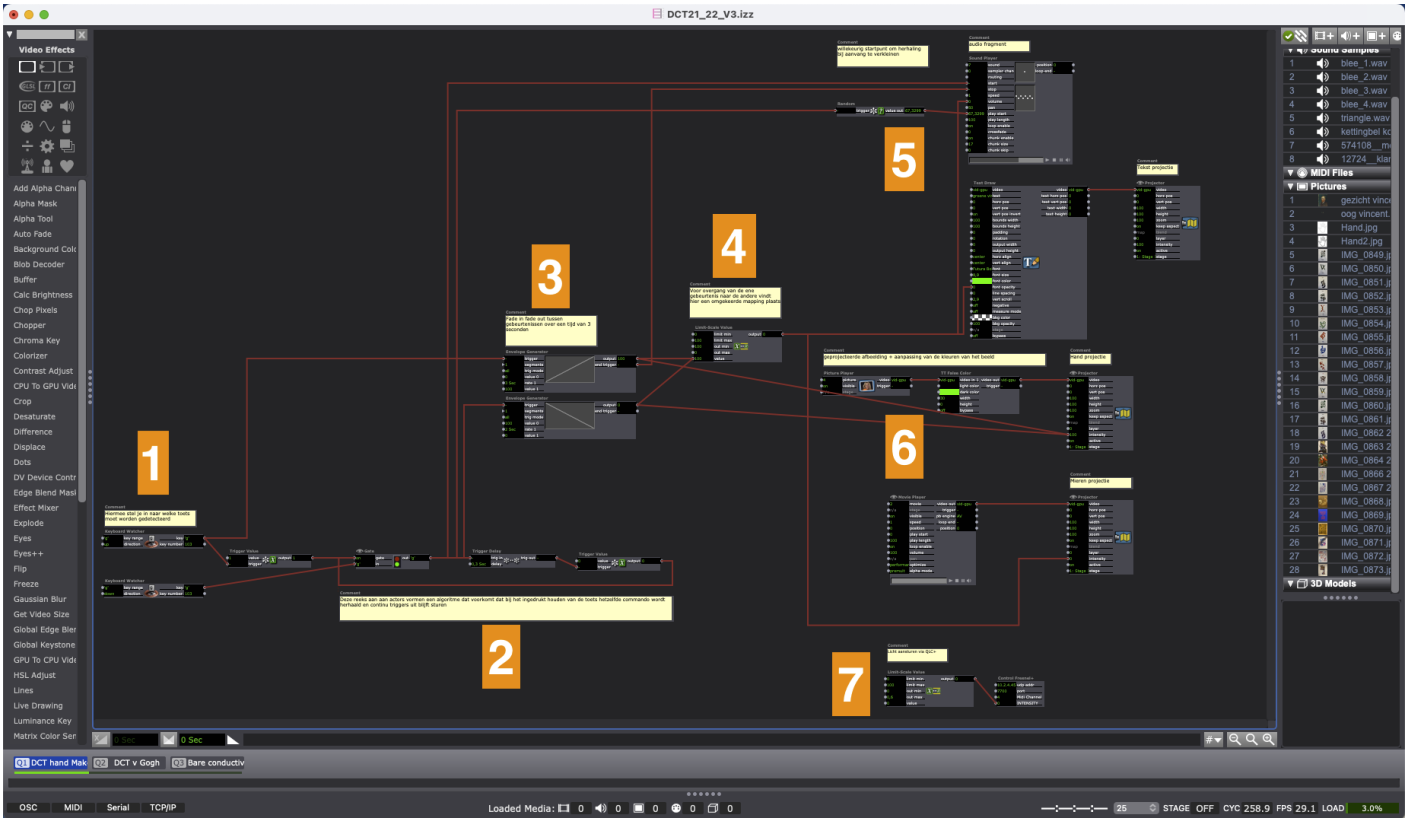
Order from input to output:

- The 2 trays with soil form the positive and negative 'switchboard' of a circuit, which is closed when a person places both hands on it.
- The Makey Makey sensor board detects when the circuit is closed and sends for example the letter 'g' as a keyboard command.
- the 'g' key activity is detected in Isadora and used to fade between projections of photos, film and text and to start a sound.
- Using the projection mapping (a.k.a. video mapping) function in Isadora (see online tutorial), the images are projected in the correct perspective and within the frames of the trays.

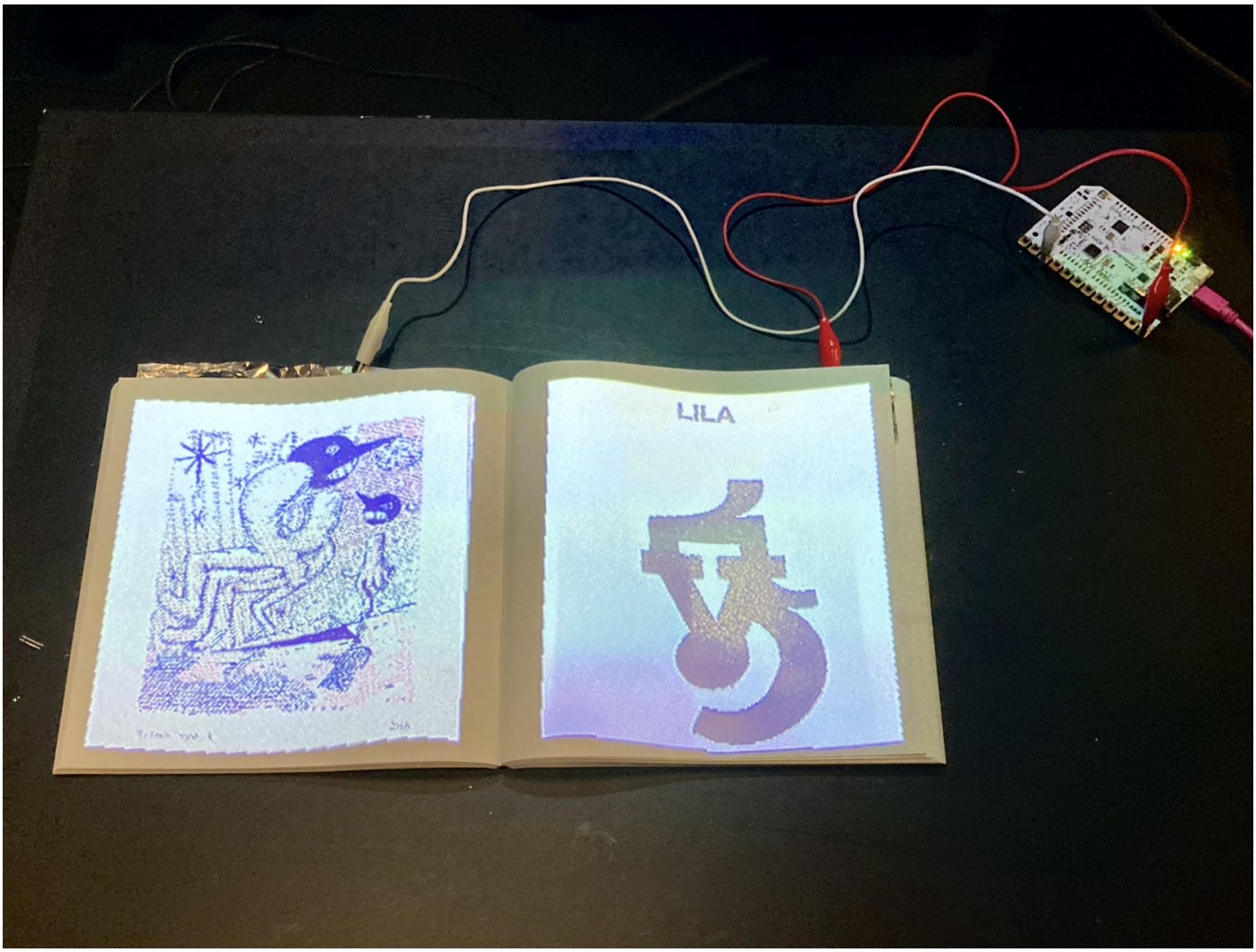
https://www.youtube.com/embed/sGNI89kY4kU

Patch explainer:

1. Key strokes received from the Makey Makey
2. An algorithm preventing continuos keystrokes
3. A fading circuit to fade between projected images when a keystroke is activated by touch
4. Inverting the values for fading in an image while fading out the default image
5. Randomisation of audio startpoint to prevent repeats + green projection of displayed text
6. The default hand projection and movie which appears when triggered
7. An extra attribute to control the theatre lights



Interactive book pages with projection and Bareconductive



"To swipe or not to swipe"

Volgorde van input naar output: - Met behulp van de proximity functie van het Bare Conductive sensorbordje worden de bladzijden interactief gemaakt. - 2 aluminiumfolie blaadjes dienen als "antennes" voor het bordje, die de nabijheid van een geleidend object kan detecteren en omzet naar variabelen die worden ingelezen door Isadora. - In deze opstelling zet de Bare Conductive de gemeten waardes om naar MIDI, welke ook kan worden "gelezen" door andere software (bijv. Ableton Live of zelfs soft- of hardware synthesizers) - Binnen Isadora selecteert de inkomende MIDI informatie willekeurige afbeeldingen voor elk blad. - Met behulp van de projection mapping (a.k.a. video mapping) functie in Isadora worden de beelden in correct perspectief en binnen de kaders van de bladzijden geprojecteerd.

Virtual drumkit with mocap (NIET AF)

todo: insert photo @ Blackbox in action

Description:

A setup with an imaginary drumkit triggered by motion capture.
This is an example of how sounds can be placed in space to create a virtual spacial experience,

Required components:

- Mocap (motive @ Blackbox IBB/ON or Vive tracking)
- Computer with Touchdesigner (patch via this link)
- Projector
- Speaker
- example files

Setup of Pyshical components

Callibrating tricks

4 seasons Virtual Experience (niet af)

todo: insert photo/video @ Blackbox in action

Description:

Experience the 4 seasons in light, audio & image triggered by motion capture.
This is an example of how sounds can be placed in space to create a virtual spacial experience,

Required components:

- Mocap (motive @ Blackbox IBB/ON or Vive tracking), 1 or more rigid bodies/trackers
- Computer with Touchdesigner
- Projector
- Speakers
- Digital Lighting (control through ArtNet or Entecc)
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- Touchdesigner Patch
- example files

Relevant Bookstack links:

- setup mocap + osc bridge in Motive&Gazebo and Vive&Touchdesigner/Gazebo

- digital-lighting-control-from-computer

- books/osc-open-sound-control

Setup of Pyshical components
requires support from Blackbox mangers!

insert photo's

Callibrating tricks
Place the rigid body in the desired location.

insert TD export screencapture example