

# 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:

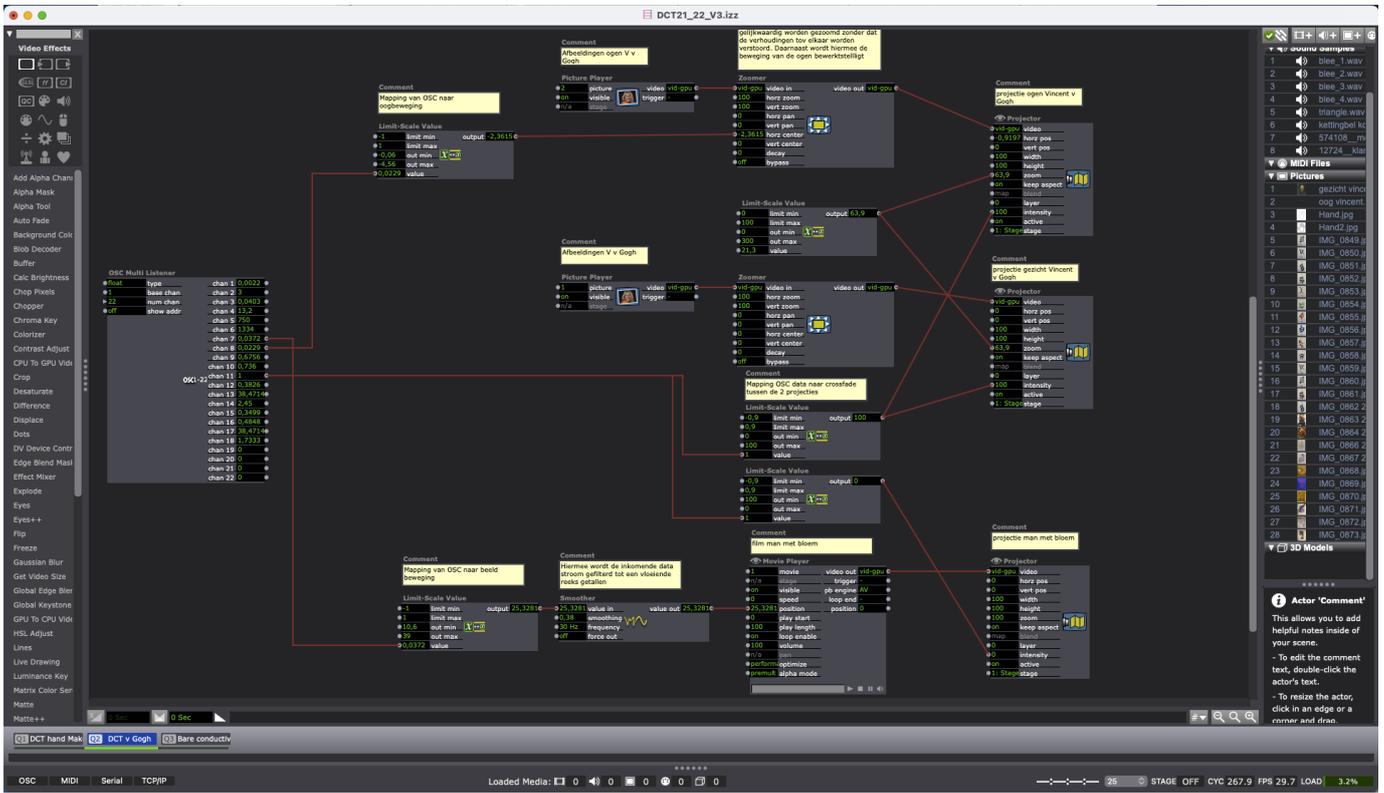
- Smartphone with [Zigsim](#) app
- Computer with Isadora (Isadora patch via this [link](#))
- Projector or display
- Isadora patch and media files: [Files.zip](#)

## 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](#).



[https://www.youtube.com/embed/kn\\_O34BuWag](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

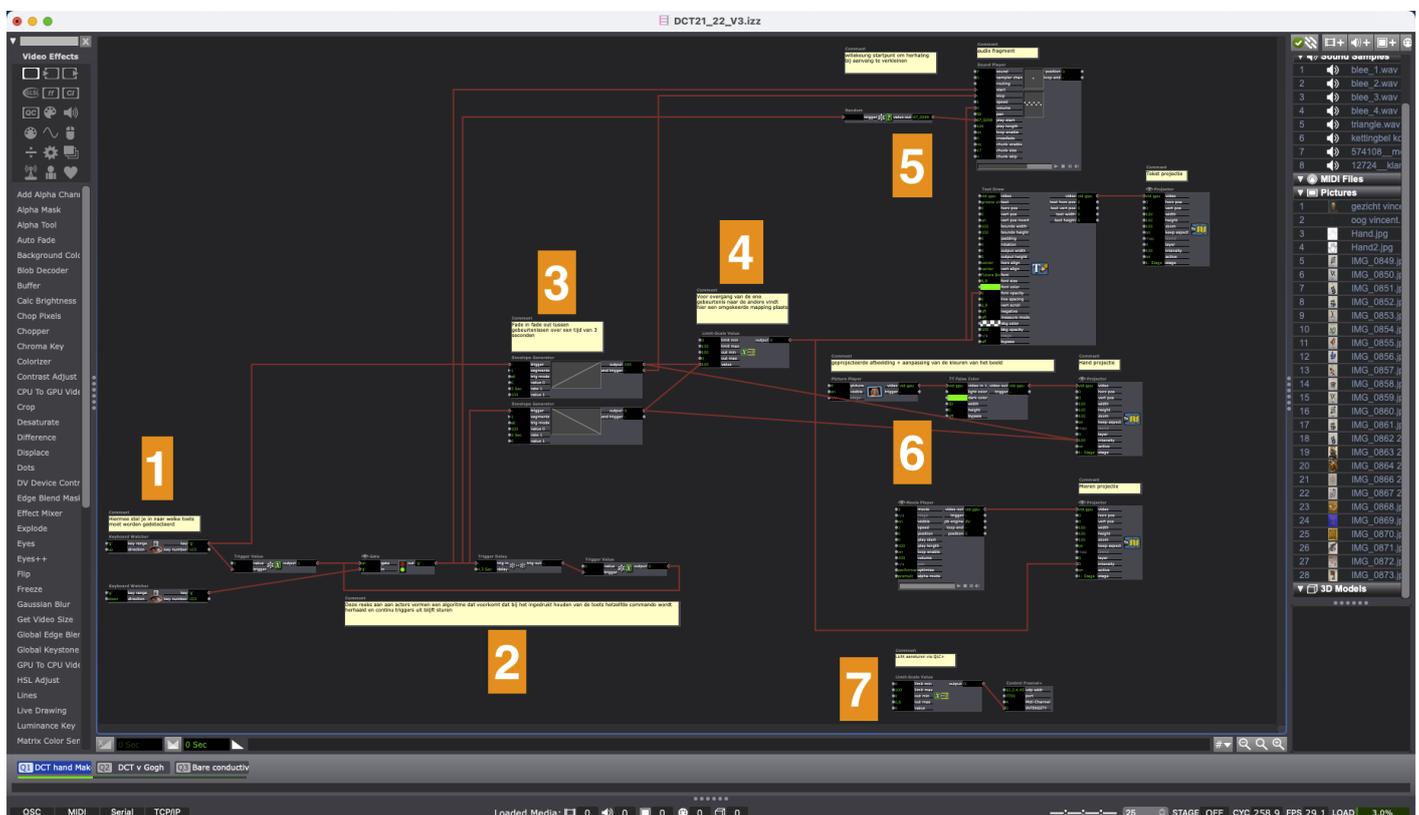
### Order from input to output:

- 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>

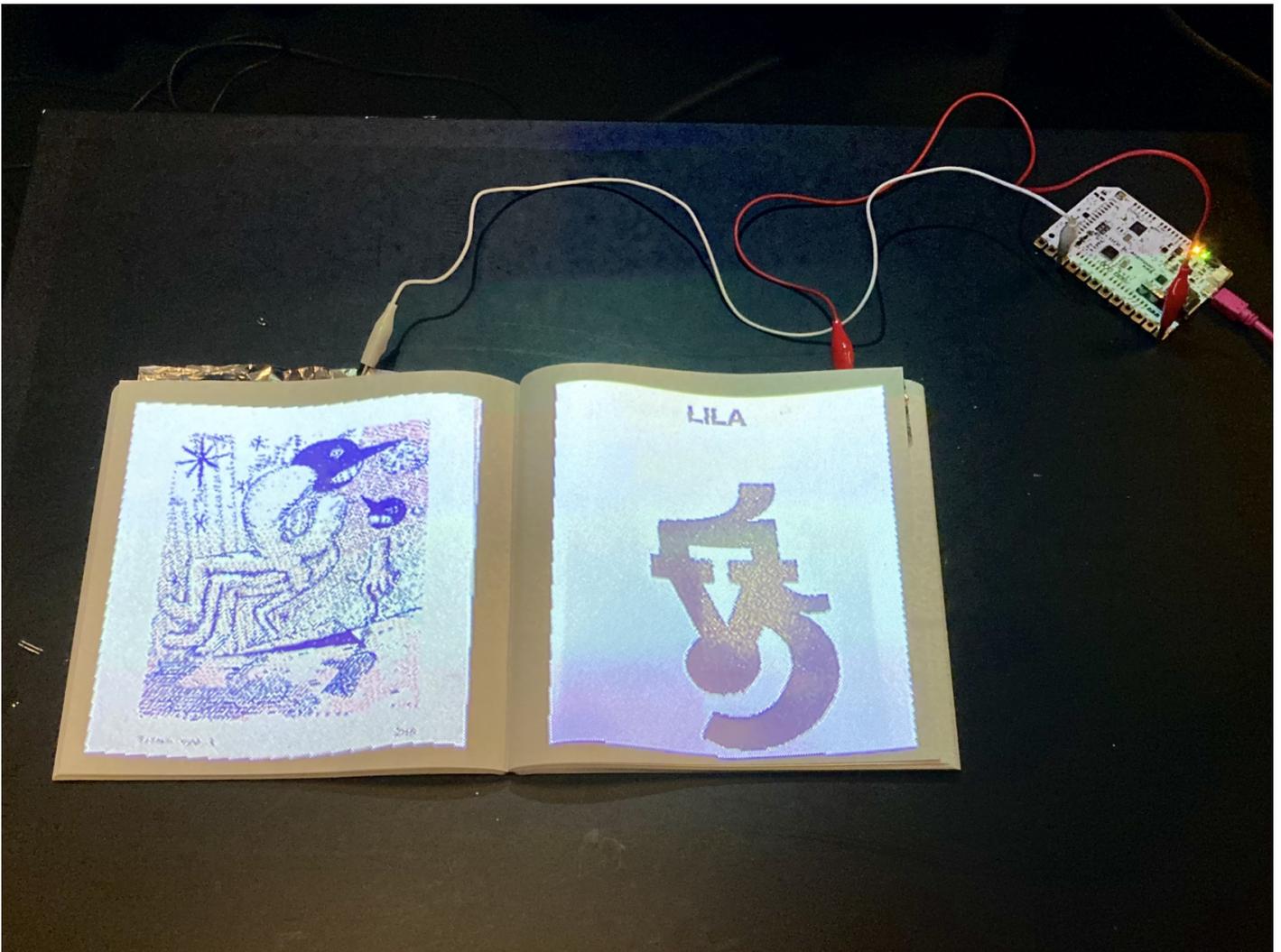
### Patch explainer:

1. Key strokes received from the Makey Makey
2. An algorithm preventing continuous 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)
- 
- [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