Intro to Sonic Art

Glove Orchestra

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Everyone can become a band performer by wearing gloves.

Various Instrument Sounds
e.g. drums, cello, bass

+

Automatically Generated Melody

+

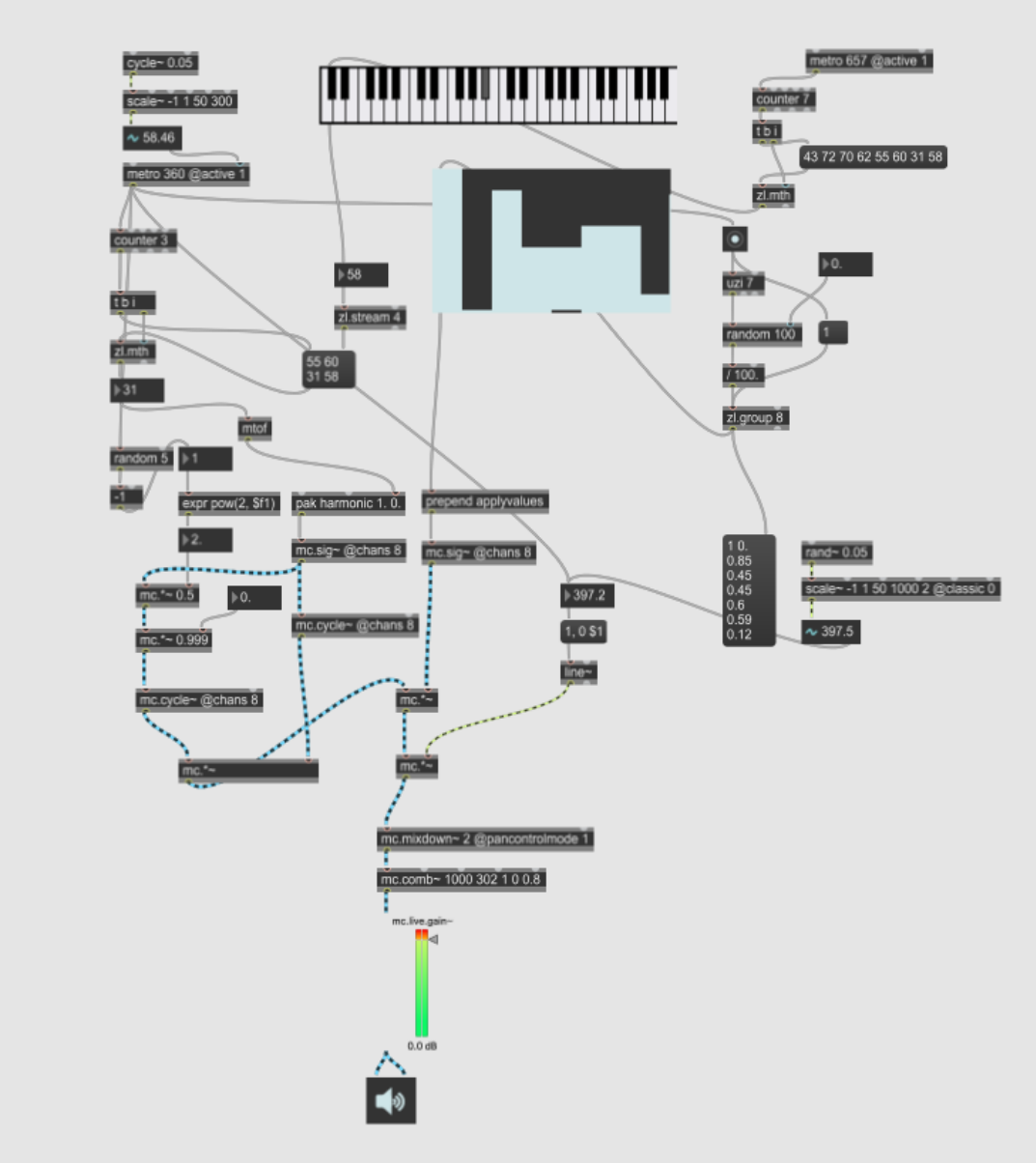
TOUCHDESIGNER
DERIVATIVE.CA

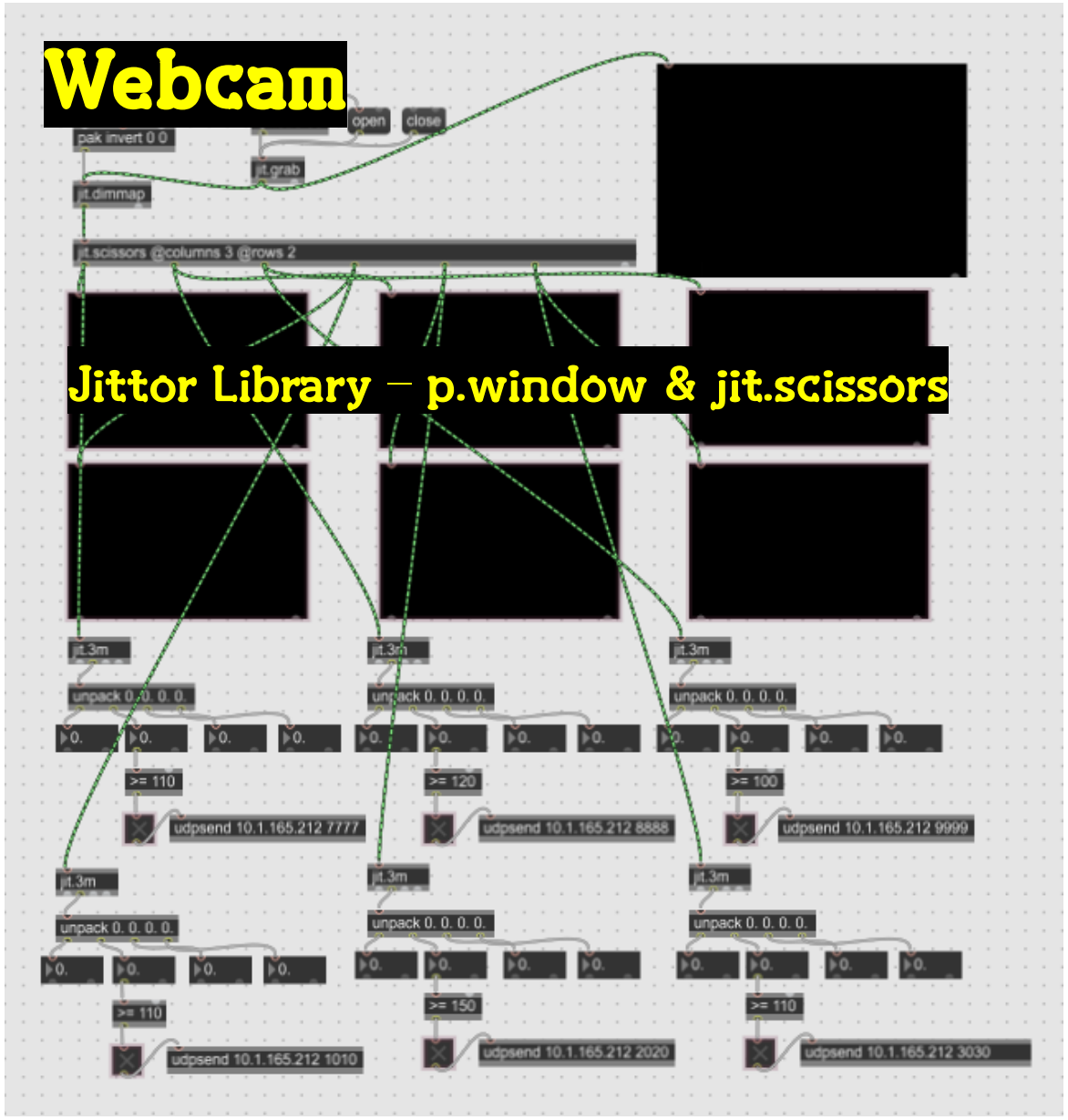
TouchDesigner
– Sound Design Tool

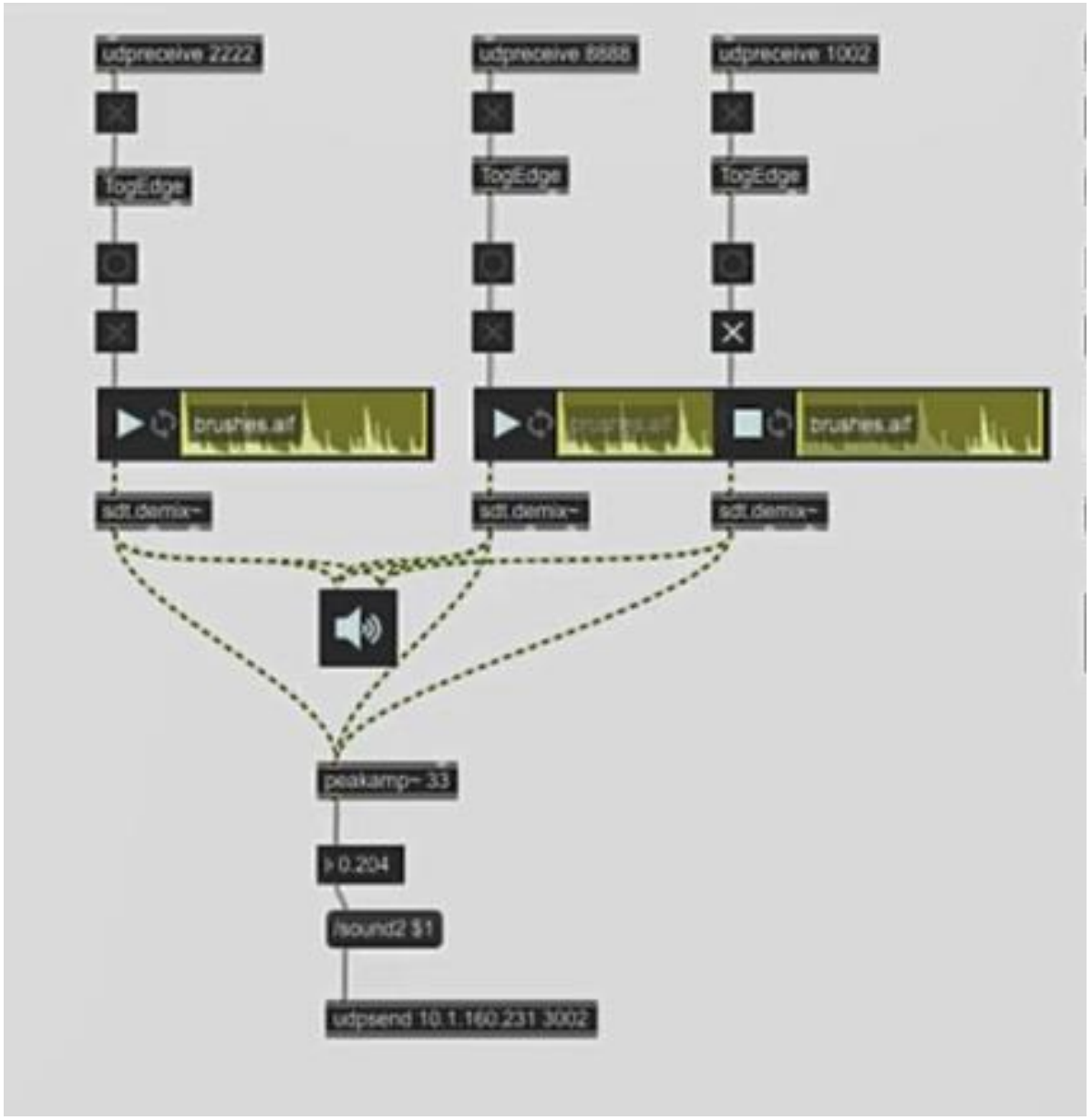
1. Project Description

1. Random Melody Generator

- Ambient additive synthesis
- Speed of 360 BPM
- Basic background music in this project




Webcam
open
close
pak invert 0 0
jit.grab
jit.dimmap
jit.scissors @columns 3 @rows 2
Jittor Library – p.window & jit.scissors
jit.3m
unpack 0. 0. 0. 0.
0.
>= 110
udpsend 10.1.165.212 7777
>= 120
udpsend 10.1.165.212 8888
>= 100
udpsend 10.1.165.212 9999
>= 150
udpsend 10.1.165.212 2020
udpsend 10.1.165.212 1010
udpsend 10.1.165.212 3030


udpreceive 2222
udpreceive 8888
udpreceive 1002
TogEdge
brushes.aif
sdt.demix~
peakamp~ 33
0.204
/sound2 $1
udpsend 10.1.160.231 3002

2. Camera Launchpad

(1) Webcam

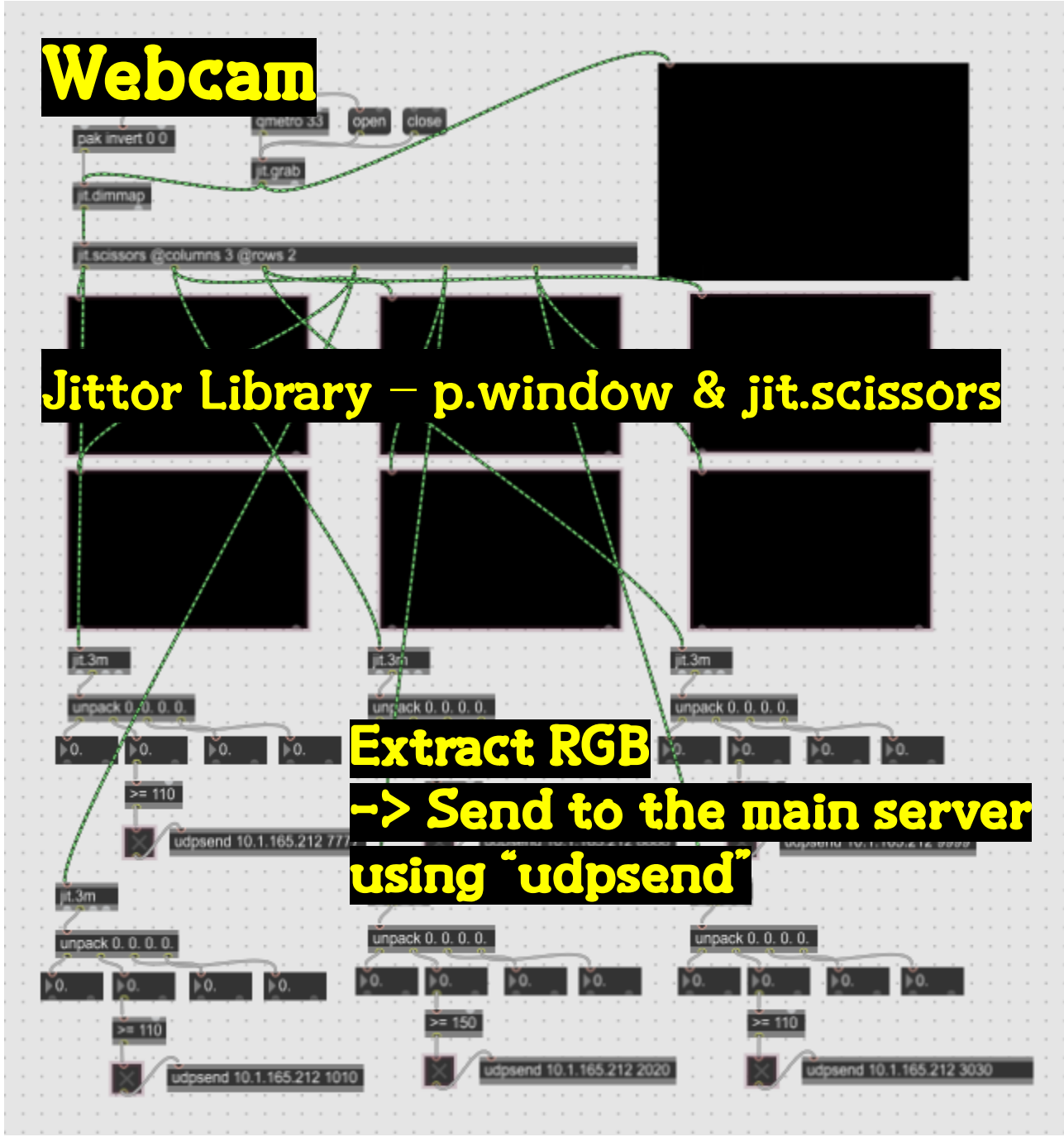
- Jittor Library

- Extract RGB

If the red color exceeds a certain level, the

corresponding toggle is activated

- Send to the main server

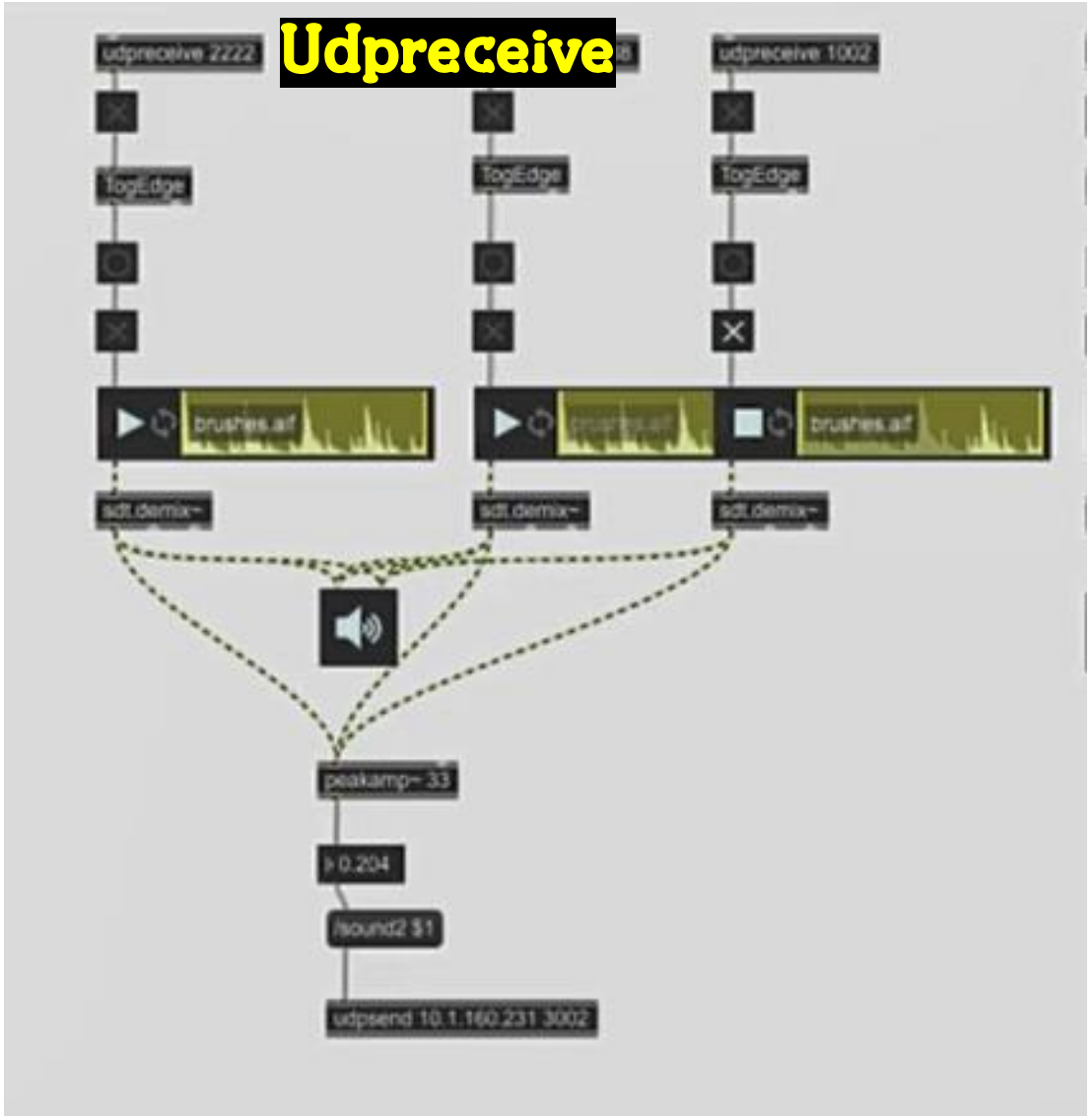


2. Camera Launchpad

(2) Main Server

- Receive by "udpreceive"

=> Plays the sound connected to that specific screen



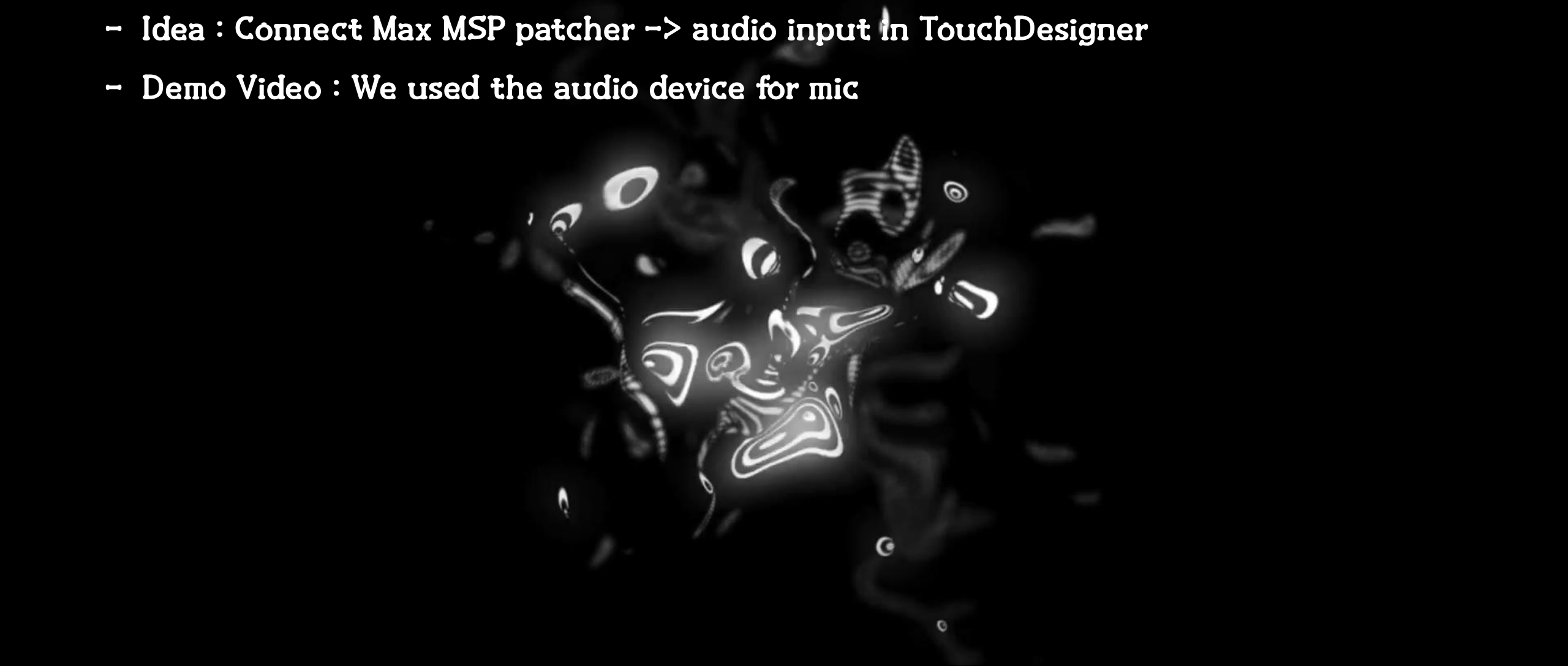
3. Visualization with TouchDesigner

- To create more interactive & artistic atmosphere for the performance

⇒ Visualization of the generated sound

- CHOPS & TOPS create generative art using the amplitude and frequency from the input sound

- Idea : Connect Max MSP patcher -> audio input in TouchDesigner
- Demo Video : We used the audio device for mic



2. Intention of the Project

Inspiration : Loop-station Performances

"We want to create something that turn simple sound to a full-range combination of sights and sound."

Purpose :

1) Explore the integration of Human movement + Sound generation + Artistic Visualization

⇒ Provide an experience of interaction & immersion (For individual)

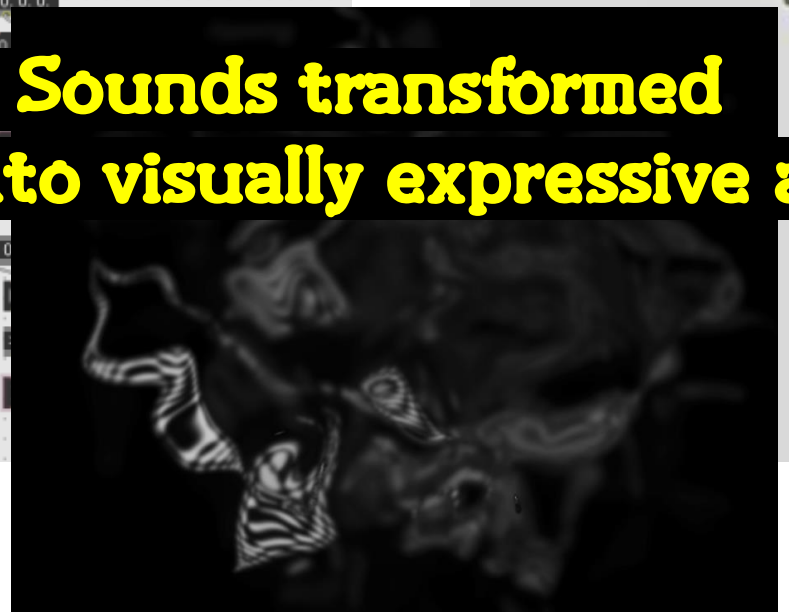
2) Provide a platform to engage in arts and creativity through multi-sensory experience

3) Create opportunities for community by encouraging human interaction and connection (For society)

1. Camera
=> Capture human movement

2. Translate into corresponding sound

3. Sounds transformed
Into visually expressive artwork



3. Demo Video

4. Further development

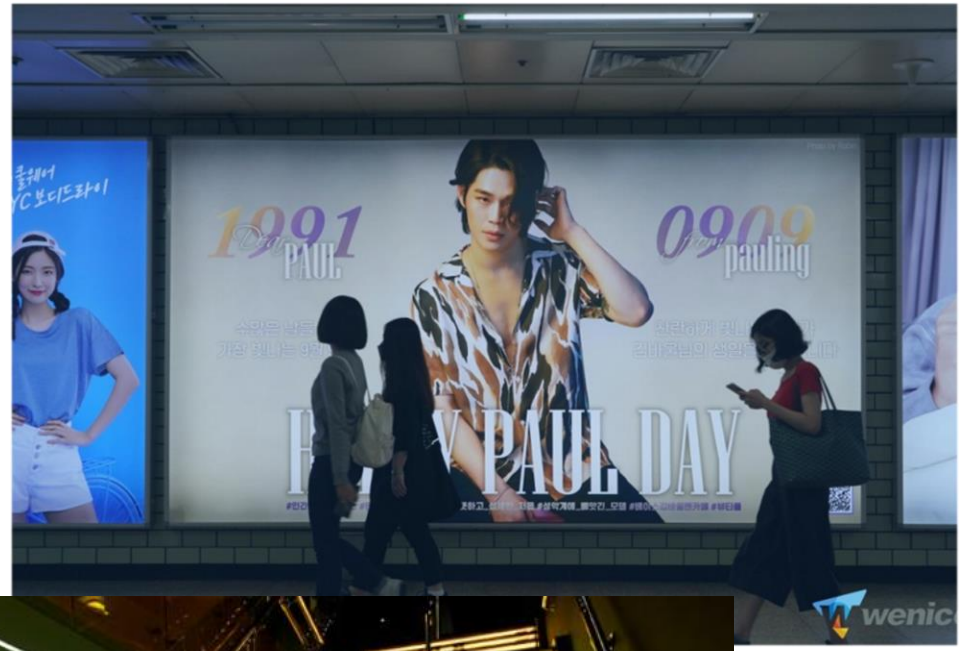
A Media Wall of a Subway

- Camera recognizes the color of people's hands & faces

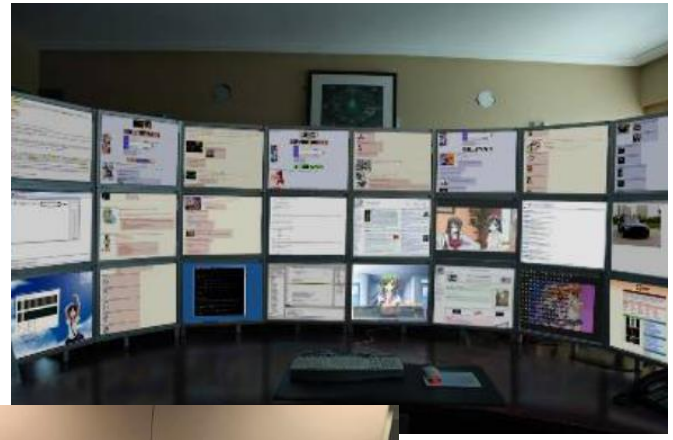
⇒ Produce music when people pass by

- If we install it on the electronic boards of stairs

=> Can expect people use more stairs than escalators



Interactive Music Show



1. Increase the size of the project & operate on many computers
2. Create music in teams with multiple people on one computer

   => audience-participating project
3. Audience can make their own sounds with the object around

   them => (e.g.) pet bottle, can