

The Heart of the city



A project by Anaisa Franco
in collaboration with Nabhila Faetti
and Aravindh Panchadcharam.
Produced by Juliette Bibasse
2014

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Description

The Heart of the city is an interactive public art sculpture that pulses light according to the heart-beat of the people. The sculpture invites several people to sit and interactive with it.

When a person places its finger on the pulse sensor located in one of the seats of the sculpture, it starts light on and off according with the rhythm of the heart beat of the user. When nobody is touching the pulse sensor, the Heart of the City has its own rhythm and illumination.

The piece aims to bring closer the heartbeat of the citizens by creating a heart to the city where people could hang out and experience an expansion of their own heart shared with others.

Side view



Top view



Technical designs

1. Conceptualizing the model

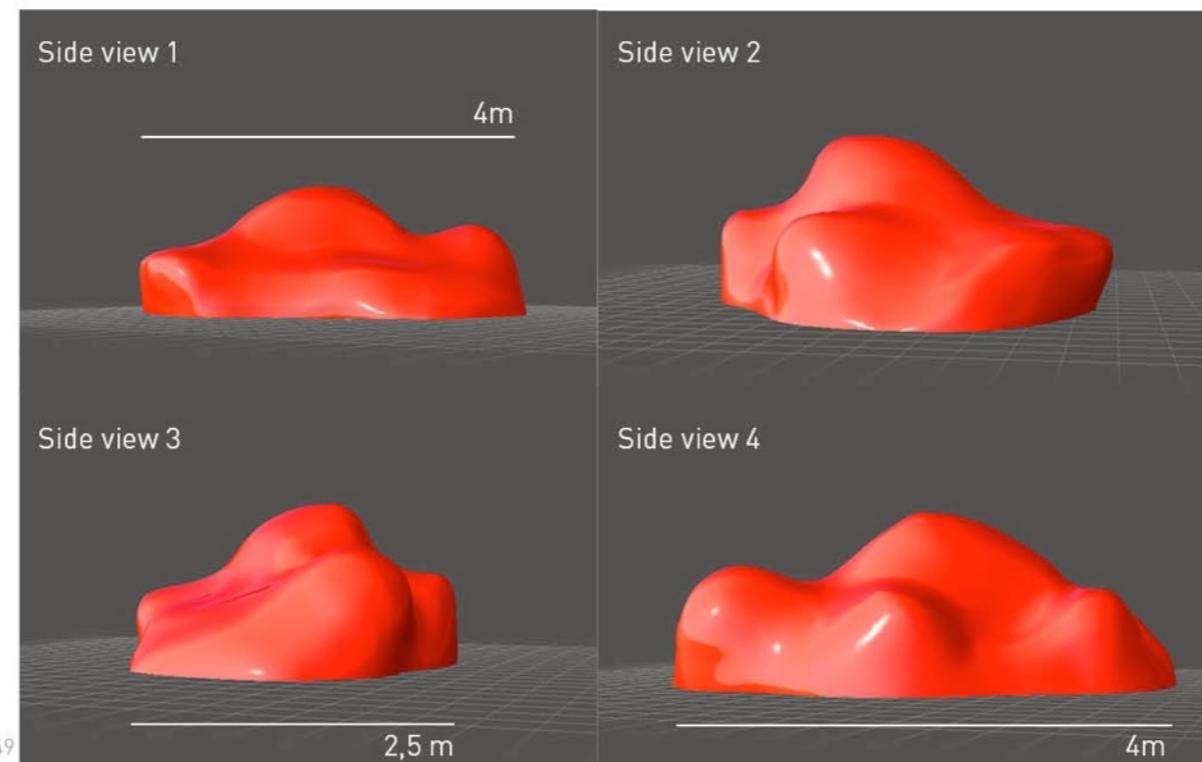
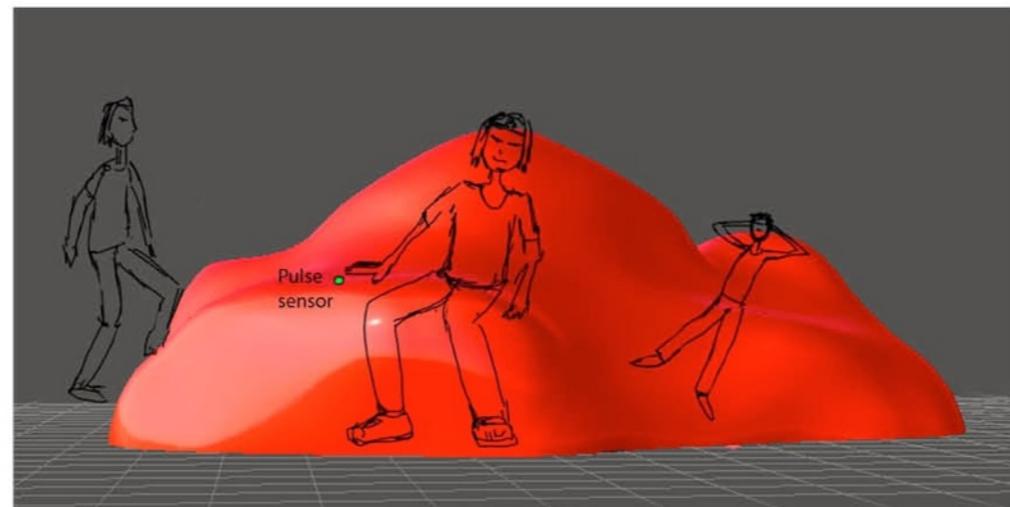
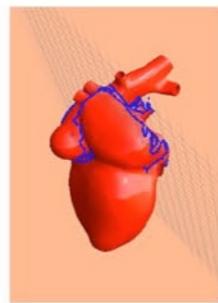
The shape of the sculpture comes from an original human heart model that I modified to get the desired shape for the project.

The sculpture will fit several people at the same time.

It will have only one pulse sensor located in one of the seats that will pulse the light of the entire sculpture on and off. It can only be activated by one person at a time.

The sculpture surface will be 10 m².

The structure will be robust, waterproof, durable and its shape will be adapted and can be scaled according to the space around it.



Maquette made with ceramics. Testing shape.



Aerial view. Abstract shape of a Heart.

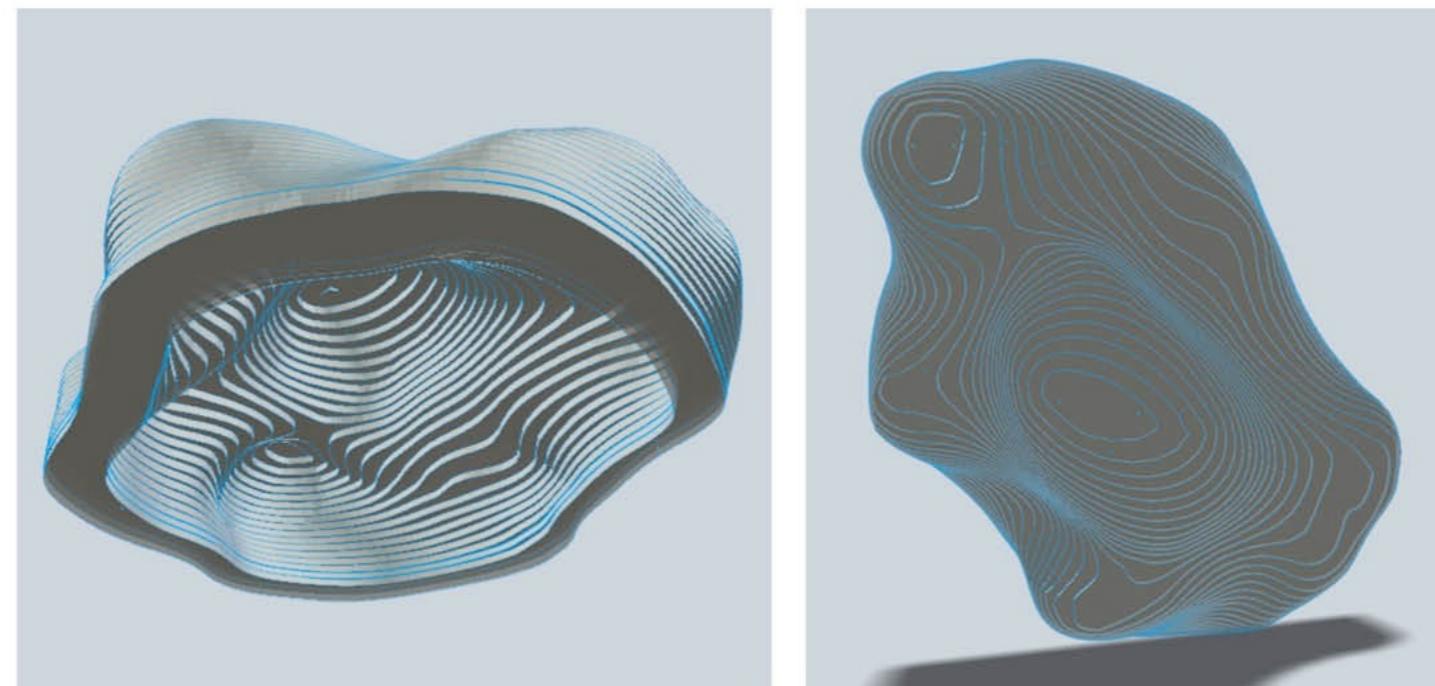
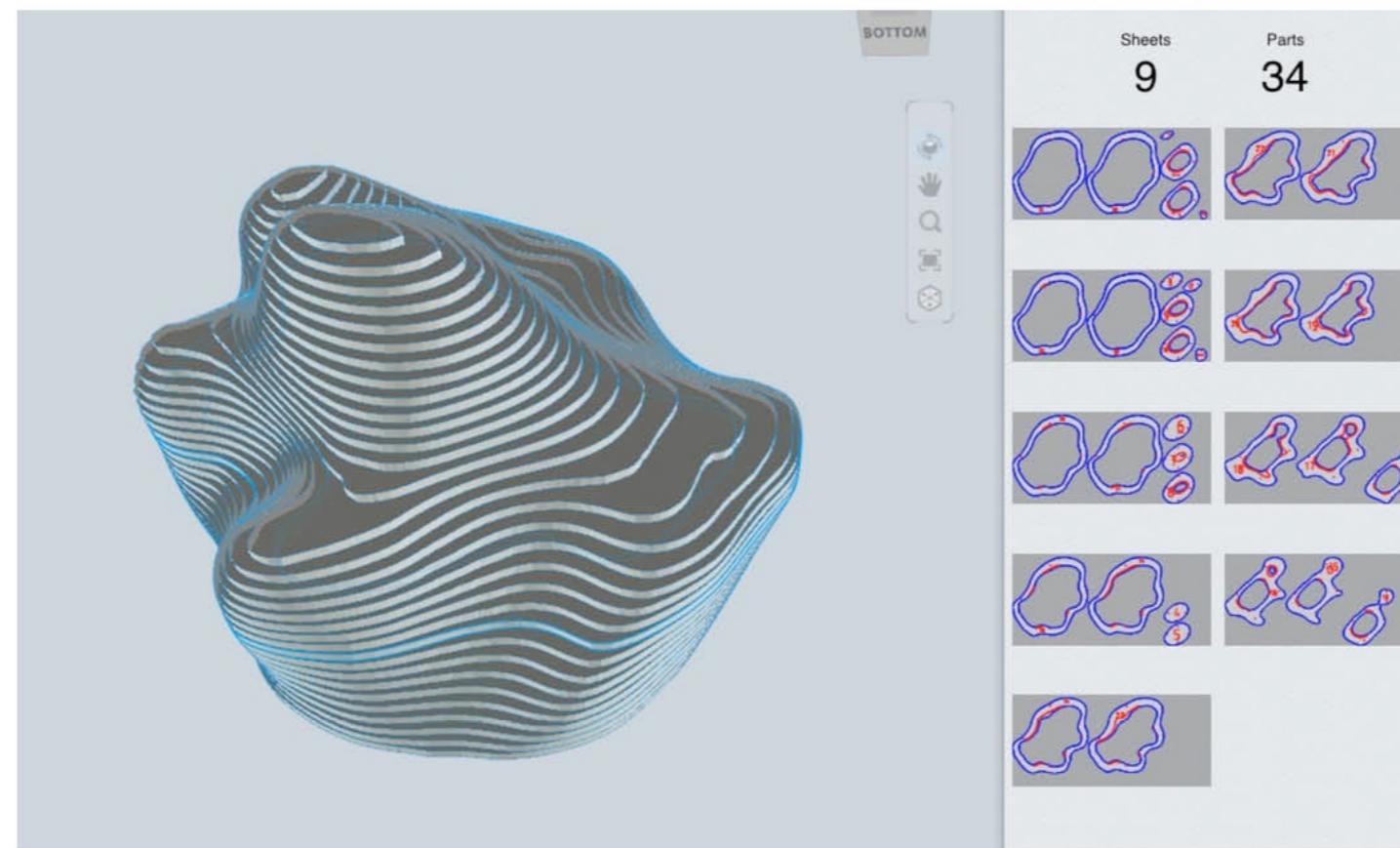


Size of the sculpture will depend of amount of money provided. At the moment I can buy 350 meters of LED Neon Flex supported by Vivid Sydney. If I get more I can buy more meters and the sculpture can be bigger.

Internal structure

The interior structure will be made of mdf wood pieces shaped with laser cutting. The inside will be empty to store the electronics and the micro-controler. The wooden shape is covered with LED Neon flex to create a skin-feel touch.

The structure can also be made with styrofoam and a layer of resin. Cheaper and light material.



Internal structure will be made with **Styrofoam** and a layer of resin. Will be developed in the Design lab of UTS, University of technology Sydney. From April 18th until May 22th, 2015.



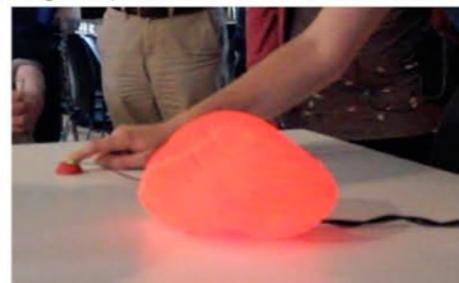
LED Neon Flex

The piece is going to be covered with red LED Neon flex.



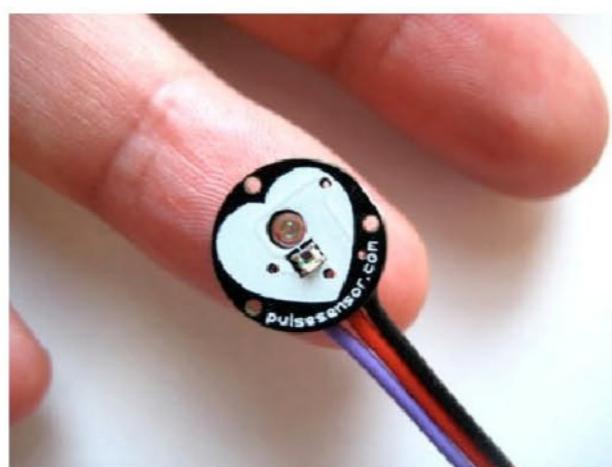
Example of lights on and off according to the heart beat.

See this video for a better understanding: <https://vimeo.com/106519576>



Pulse sensor

The pulse sensor will be place on the sculpture. People need to sit on the sculpture and place their finger on the sensor. Suddenly it will light on and off following the participant's heartbeat.



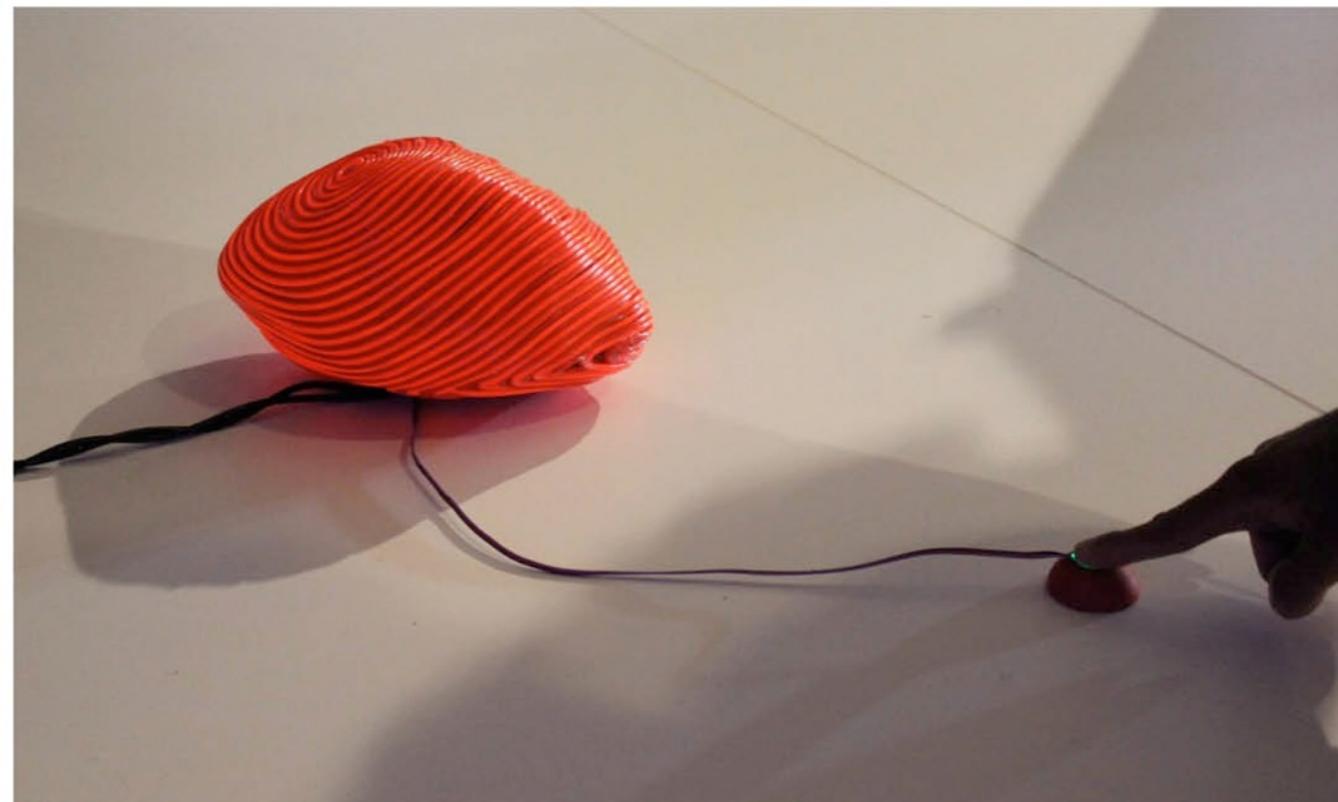
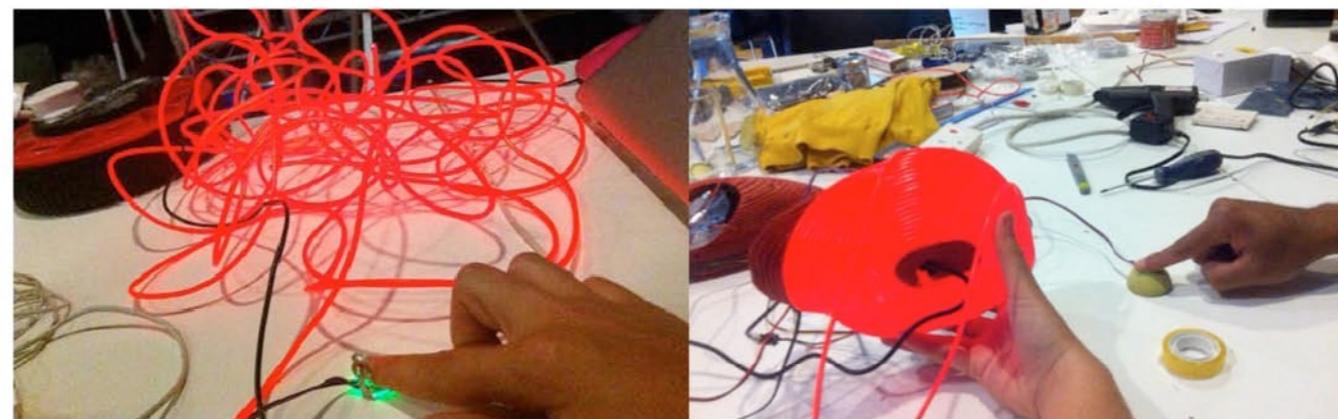
Tests and prototype with EL Wire (electroluminescent wire) and Pulse sensor.

Recently I did a small project called Heart Dialogue that lights on and off using EL wire and Pulse sensor.

The idea is to make the same ilumination and interaction for the Heart of the city. The difference is that I will use LED Neon Flex instead of El wire.

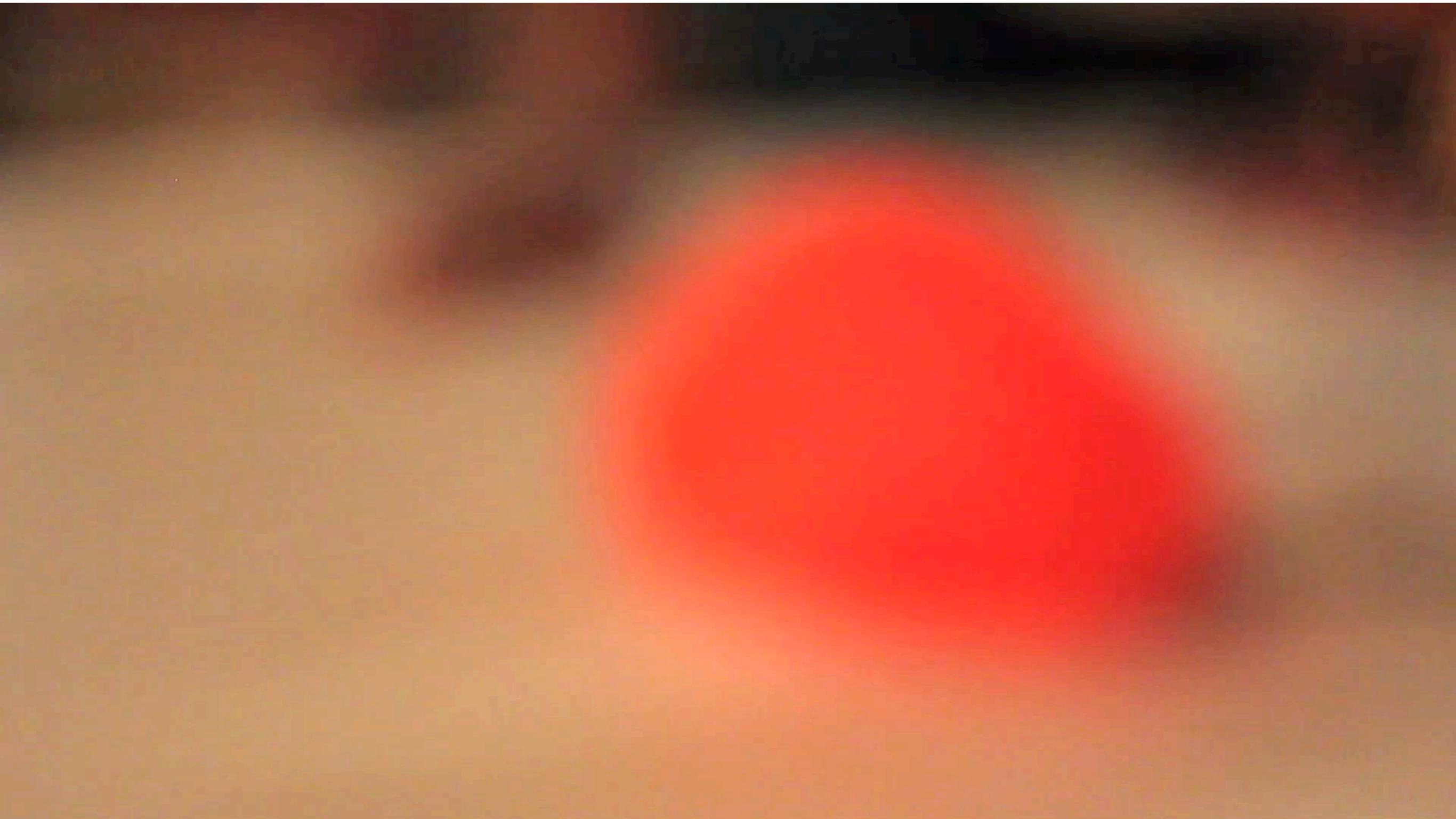
Please, watch the video:

<http://anaisafranco.com/heart.html>



Heart Dialogue, 2014

Example of feasibility of Pulse sensor pulsing light, in this case EL Wire.

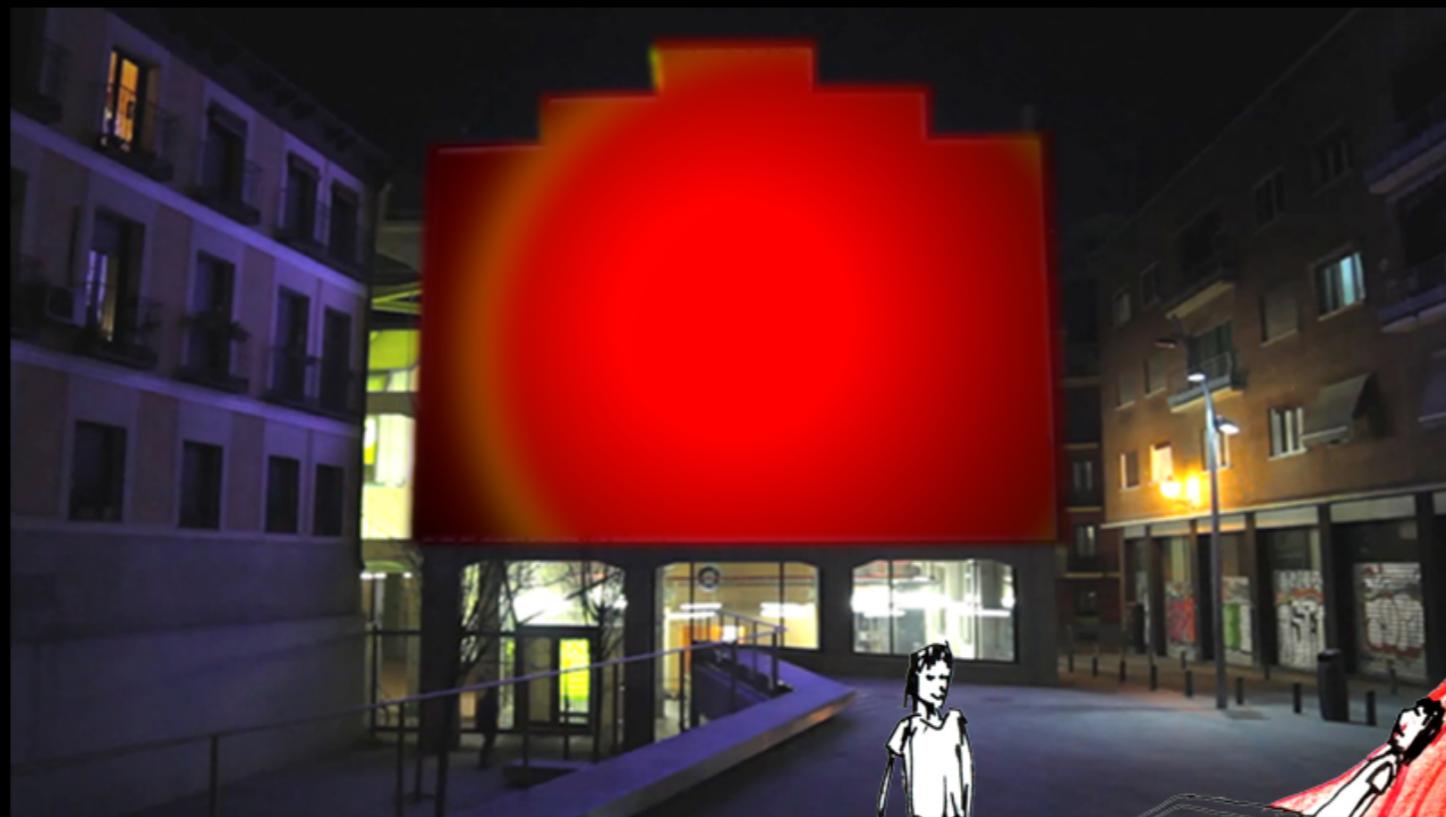


Example of feasibility of use of LED NEON FLEX 12 v. People can walk, sit and interact with material

The Heart of the city

Connected with Media facades.

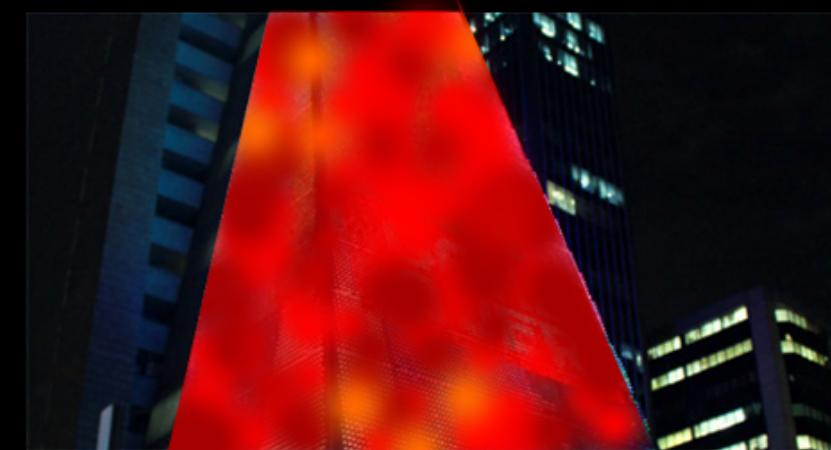
Pulse sensor would send the signal to other media facades and it will generate pulse animations with colors in many locations.



Madrid



Lins



São Paulo

Chronogram

The project will take 2 months to build.

1st month

Programming led neon flex with pulse sensor

2nd month

preparing styrofoam structure and monting all togheter.

Delivery method

The project should be transported in a crate by ocean or by plane.

The Heart of the city

Services Price List

Prices valid from nov 2014

Service ID	Service Type	Description	Value
1.1	Material	350 m LED neon flex	\$6,000.00
1.2	Material	Structure styrofoam	\$2,000.00
1.3	Material	Electronics	\$800.00
2.1	Transportation	Airplane (Berlin-Sydney)	\$2,100.00
2.2	Acomodation	1 month rent in Sydney	\$900.00
2.3	Food	30\$ / day	\$900.00
TOTAL: AUS Dollars			\$12,700.00

12,700 by VIVID Sydney

Still need:

3.1 Material	350 m LED Neon Flex	\$6,000.00
4.1 Personal	Programmer	\$2,000.00
4.2 Personal	Artist Fee	\$2,000.00
4.3 Personal	Designer	\$1,000.00
5.1 Transportation	Transport by ocean	\$4,000.00
TOTAL: AUS Dollars		
\$15,000.00		

Total : Euros 10.514 Euros

Solutions:

1. Sponsorship of LED NEON FLEX companies to lend/borrow/donate the material
2. Other types of Sponsorships

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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

Anaisa Franco
In/visible City / PUBLIC ART LAB

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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

I will present an **overview** to the artworks I have been producing since 2007.

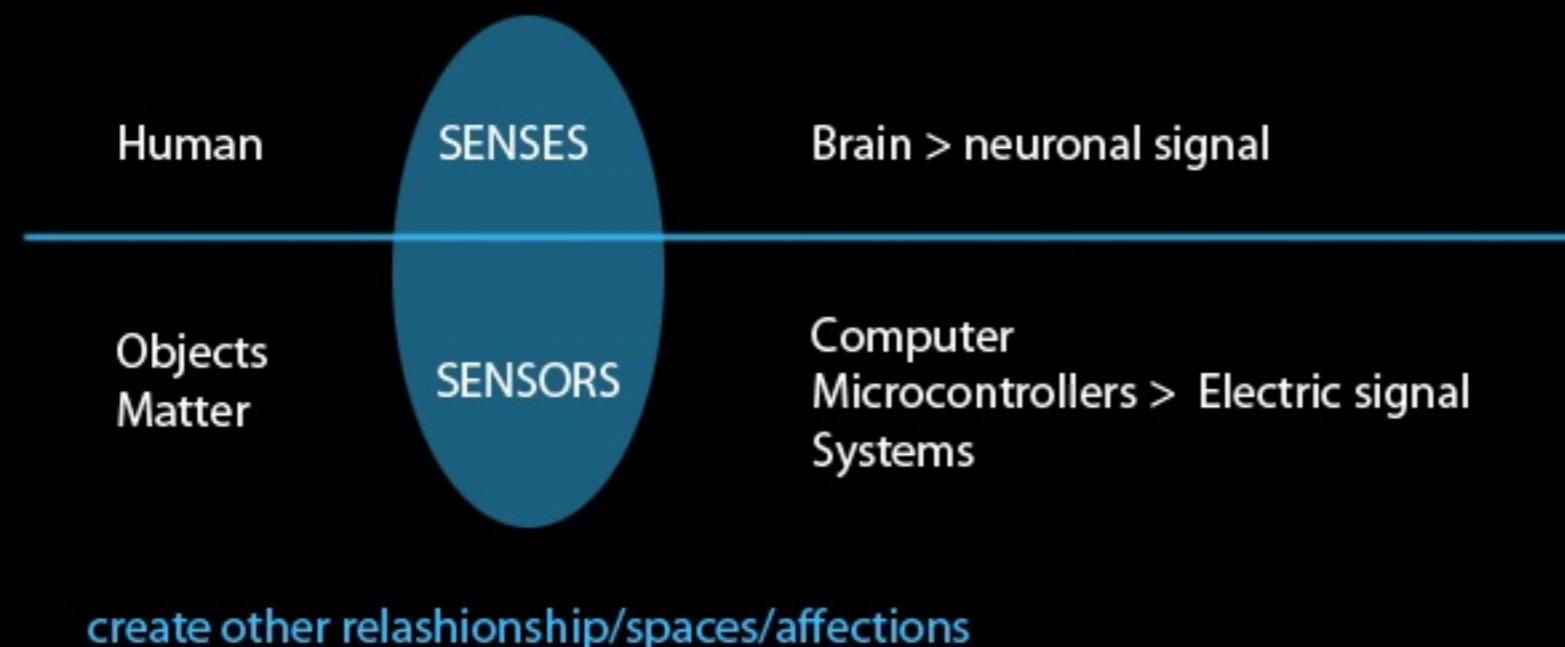
Most of my artworks have been developed through **commissions, grants and prizes** in different **art in residency** programs, **Medialabs** and **Universities**, in collaboration with engineers, programmers, architects, musicians and photographers.

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Inspired in **psychology** and **cognitive sciences**, my work is research-based, implying a constant experimentation process with new materials and fabrications.

By using technology we are able to extend/amplify our senses and develop other **perceptions** and **relationships** between human and things/objects generating other spaces, times, senses and affections.



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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

A sense is a physiological capacity of organisms that provides data for **perception**.

HUMAN/SENSES:

- Sight/vision, Hearing, Taste, Smell, Touch.
- Balance and acceleration, Temperature, Kinesthetic sense/motion, Pain and other internal senses.
- Sense of TIME : Chronoception refers to how the passage of time is perceived or experienced.

OTHER ANIMALS: infrared, ultraviolet, polarized light, dodecachromats, body heat.

Echolocation, Electroreception, Magnetoception (compass) and many others.

How many sensors are in a smartphone?



- Light
- Proximity
- 2 cameras
- 3 microphones (ultrasound)
- Touch
- Position
 - GPS
 - WiFi (fingerprint)
 - Cellular (tri-lateration)
 - NFC, Bluetooth (beacons)
- Accelerometer
- Magnetometer
- Gyroscope
- Pressure
- Temperature
- Humidity

19!

ELECTRICAL/SENSOR:

- cameras, light sensors : Eyes
- Ultrasonic, microphones : Ears
- infrared, capacitors: touch
- etc etc etc ...

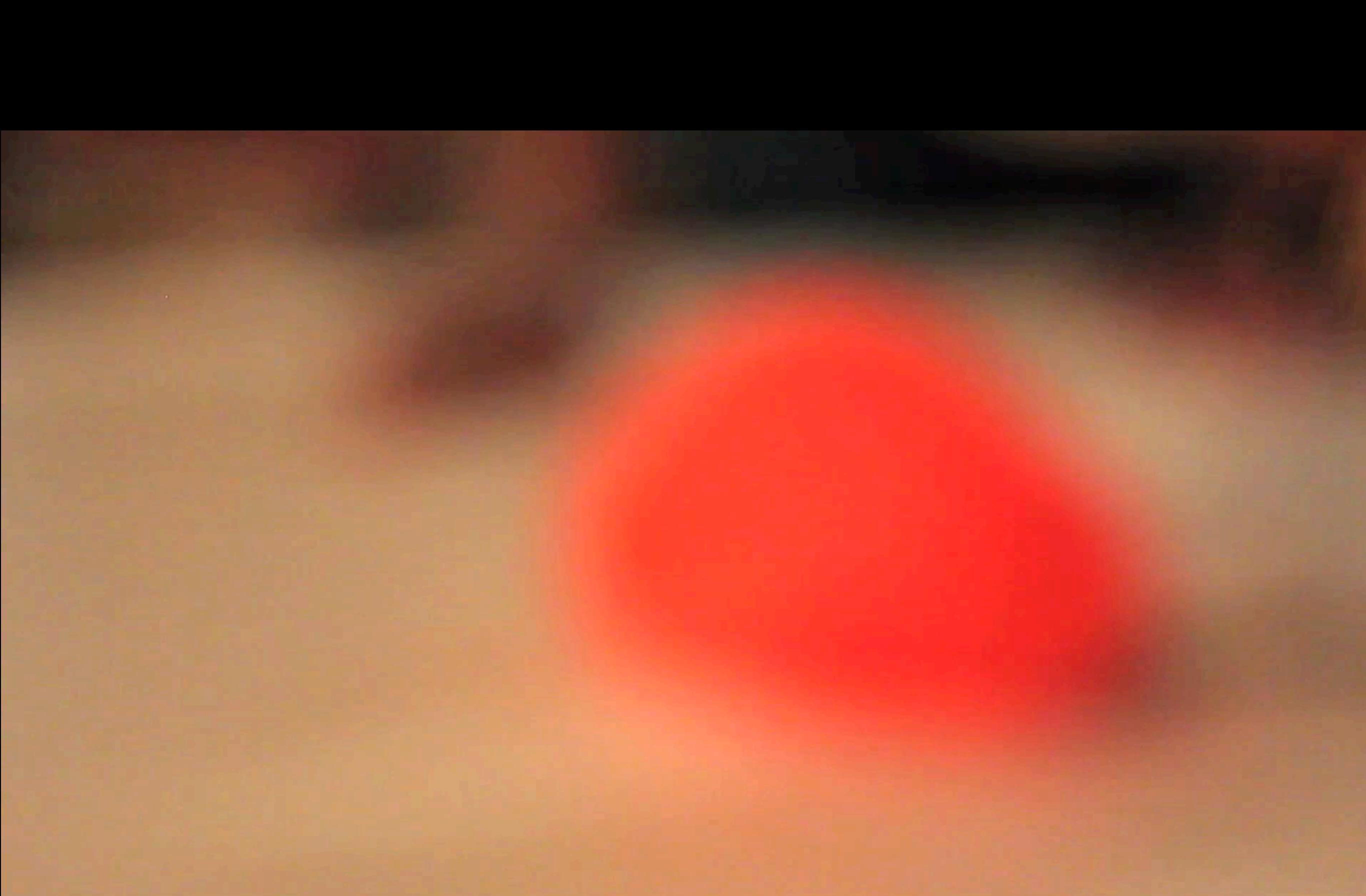
19 sensors plus the human senses that are interacting with it.
What are the spaces/relationships/affections in between sensors and senses?

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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

1. Expanding people's senses

Where technology dialogues with their body expanding their imageries and perceptive possibilities using computer vision as eye and face tracking and sensors as pulse sensor and microphone for breathing.



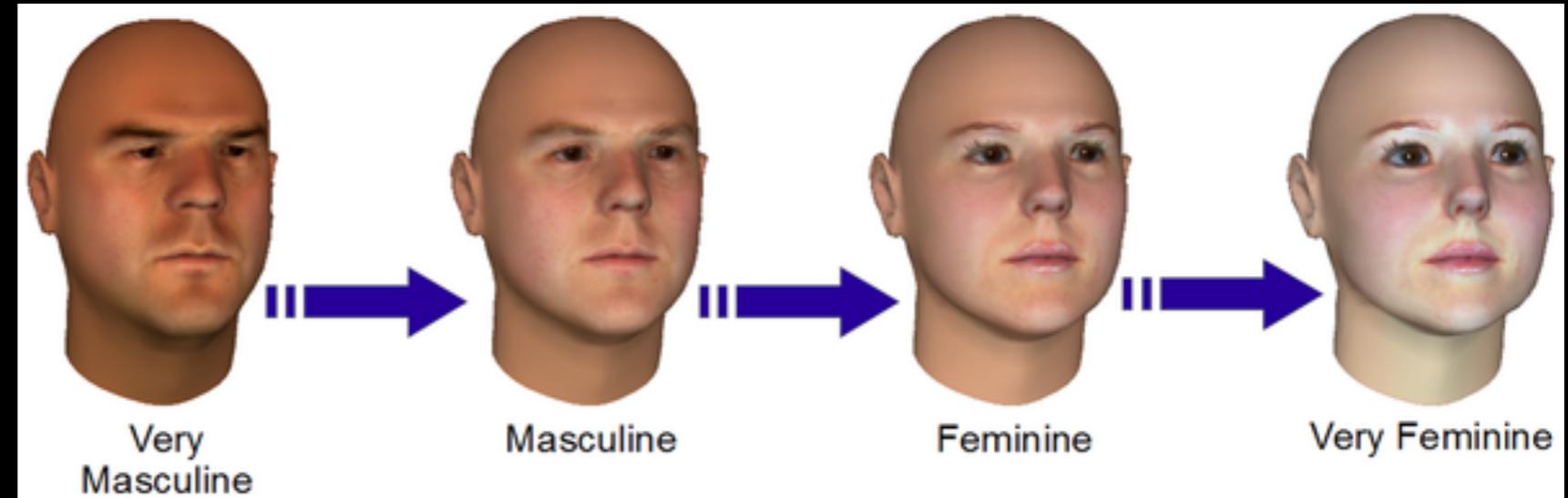
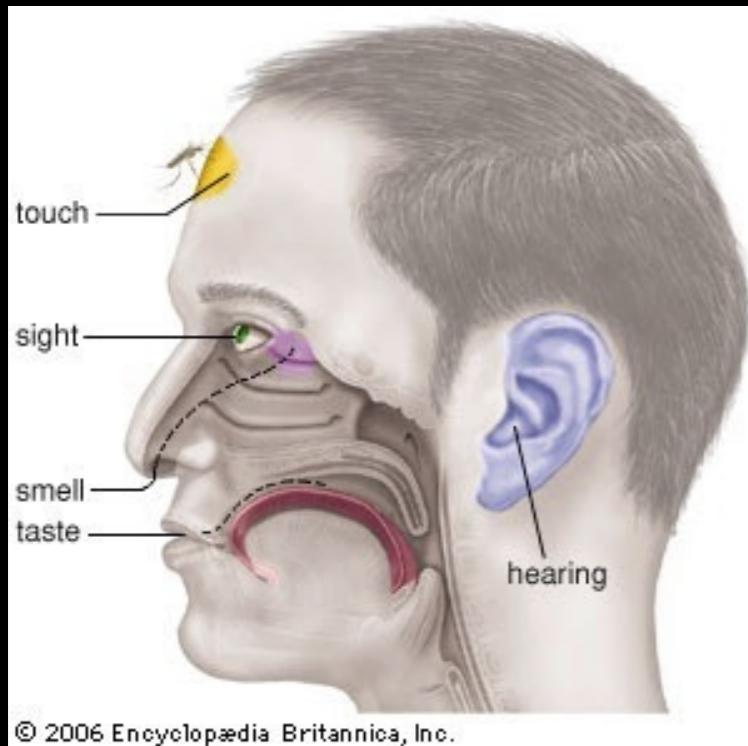
Heart Dialogue 2014

Your Wave of Happiness

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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

The face is the place in our body that has the biggest concentration of **Senses** and **Gender** information.



Onirical reflections adds one sensorial layer in the face

Devenir fluctuates the gender.

Empowered portrait for an Urban canvas
Media facade as the amplified mirror skin of the city

Onirical Reflections in collaboration with Jordi Puig

Expanding motion and balance

Wave of Rainbow

The first of the series.
Vision play inside the mirror.

Expanded Eye

Throughout Breathing in collaboration with Andre Perrotta

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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

2. Taking objects out of their inertia

Technological interfaces breathing a certain type of life/emotion/dream into them activated by people through the use of a diversity of sensors triggered by touch, human presence and body tracking.

Most of the works are from the *Psychosomatics Series*

Psycho means **mind** and **soma** means **body**.

Its another type of mirroring effect: From Mind to body

That can happen only in humans, so I decide to do anxious, confused, frustrated objects that exists only inside a mirror relationship with people.

On Shame in collaboration with Scott Simon

Talking head trapped in confusion

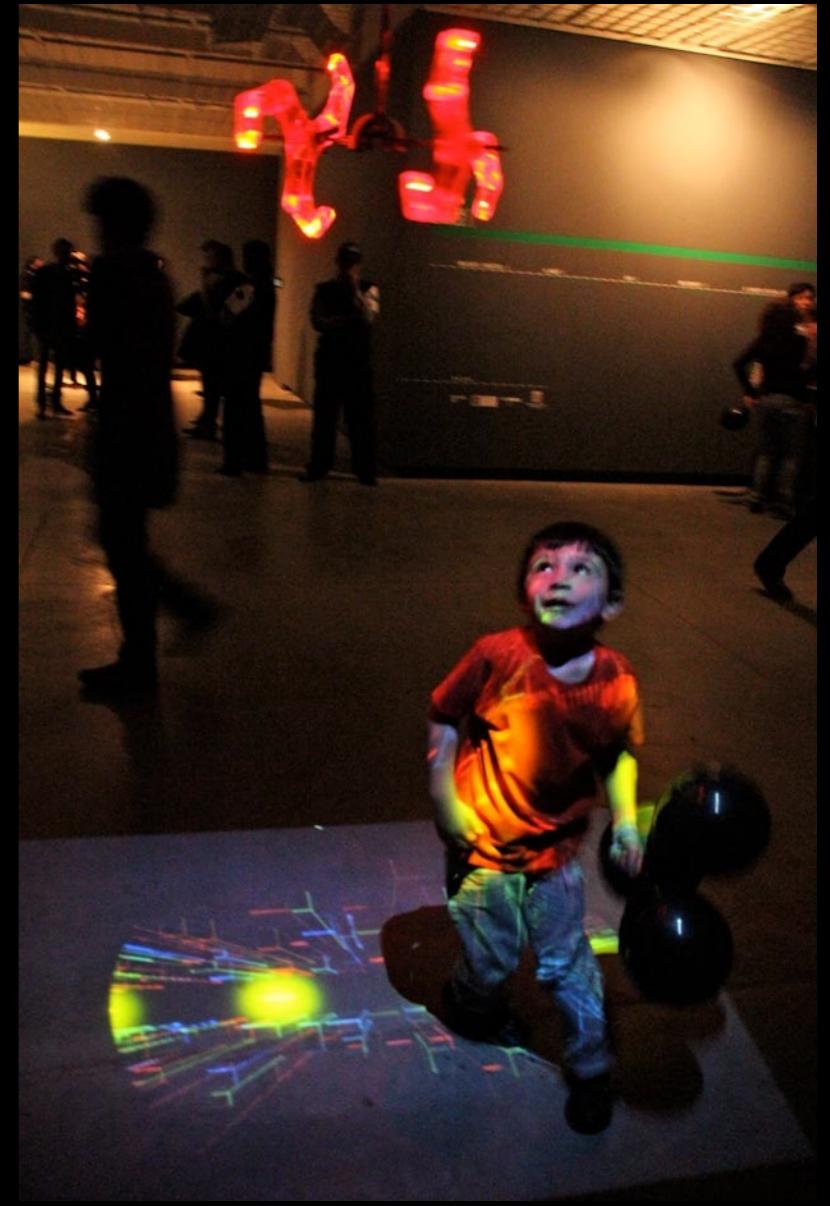
Confusion in collaboration with Achim Meyer

Anxiety

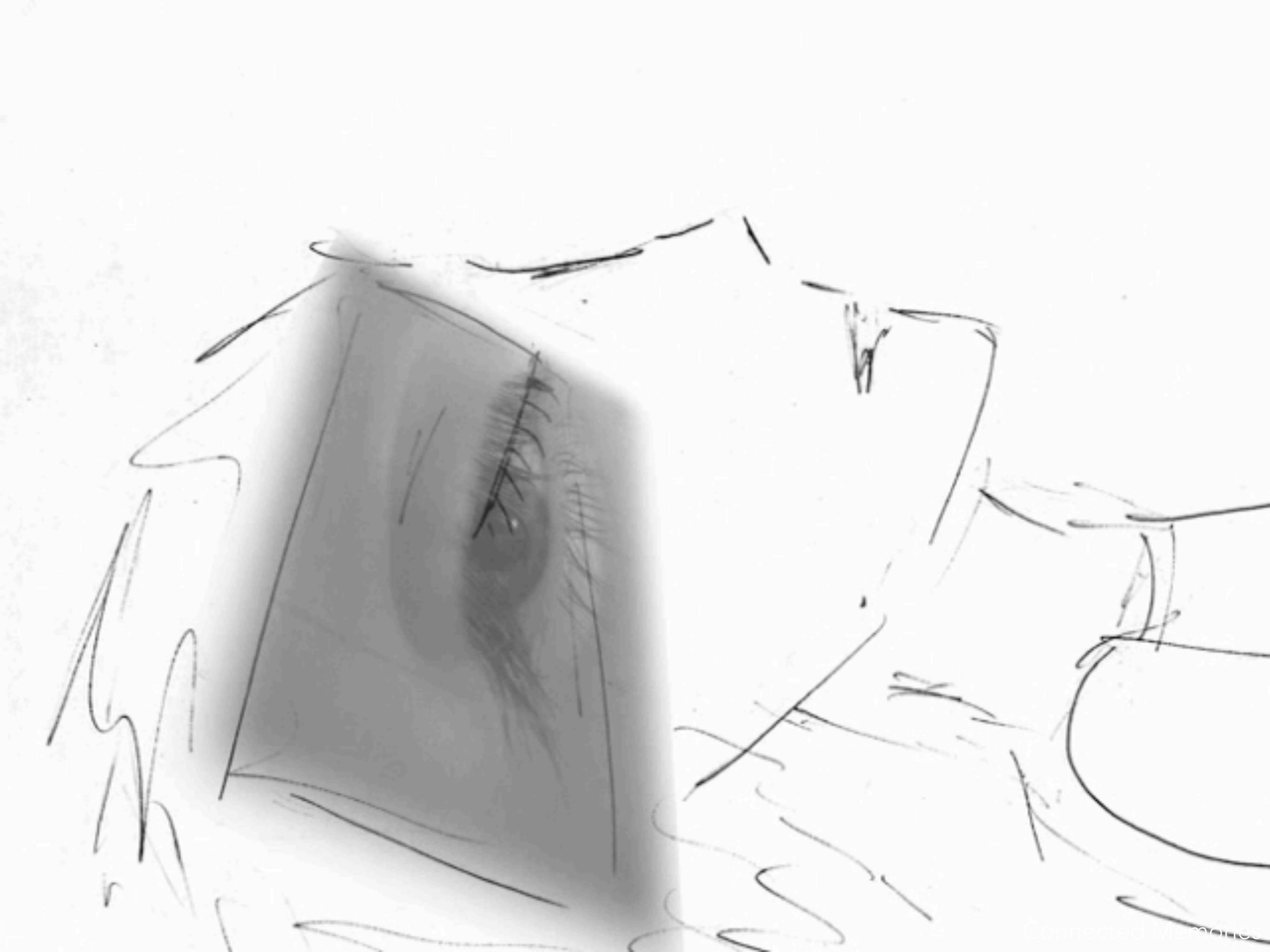
Frustration

First one from the series

Unreachable Safety



Alienated Routine



Locked Memories

First work I did

Controlled Dream Machine

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EXPERIENCING OTHER SENSES WITHIN SCULPTURES

3. Immaterial Sculptures

Searching for a chemistry between organic materials
and digital light.

They are plastic and poetic works.

Suspended Reality

Floating Land

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Thank you!!

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