RADICAL Signals

Mid term Presentation
Fabricademy 2025/2026

BIOLAB Lisboa

FABRICADEMY
textile and technology academy

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Radical Signals

Plant–Human–Machine Co-Regulation

WHY RADICAL SIGNALS

We are living in a time of growing disconnection from nature.
Natural processes have become distant, abstract, often reduced to data, representation, or control systems.
We rarely perceive the rhythms of living organisms directly — especially plants, which operate on temporalities very different from our own.
Radical Signals addresses this disconnection by making plant signals perceptible in real time, not through explanation, but through embodied experience.

DISCONNECTION FROM NATURE

INVISIBLE RHYTHMS

WHY / BIOPHILIA, EMPATHY, MEDITATION

The project also questions the idea of separation and control between human, nature, and technology.
Instead of dominance, it proposes interdependence.
Instead of technology as a tool, technology becomes a living language.
Instead of interaction as command, interaction becomes a form of empathy.
The system invites participants into a slow, contemplative, almost meditative state — where attention shifts from doing to sensing.

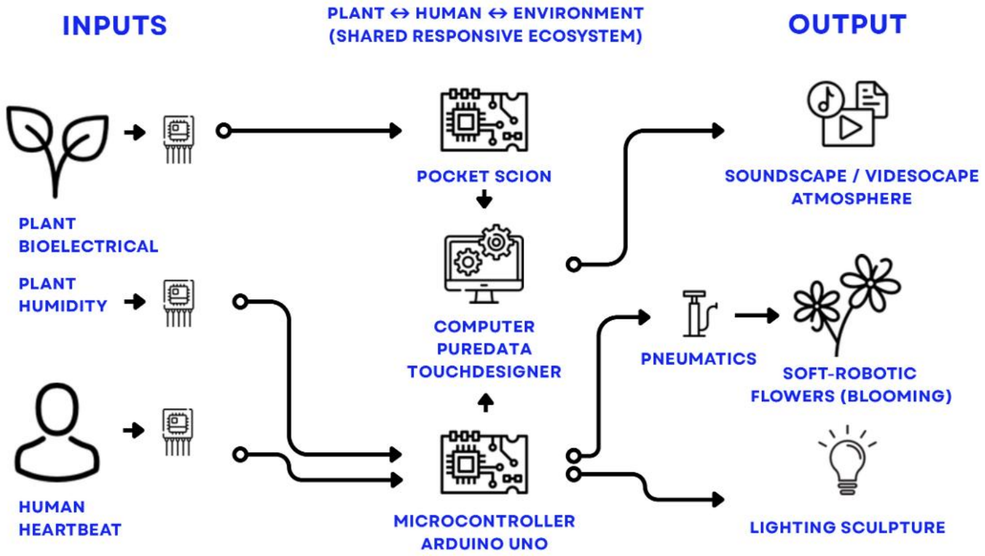
INTERDEPENDENCE

EMPATHY

SLOW INTERACTION

CORE CONCEPT

Radical Signals is not an interactive installation in the traditional sense.
There is no user, no controller, and no central intelligence.
The system is based on co-regulation: plant, human, and machine signals continuously influence one another.
Behavior is not triggered or commanded — it emerges over time.



Plant ↔ System ↔ Human

NO USER

NO CENTER

CO-REGULATION

THE PLANT AS AN ACTIVE AGENT

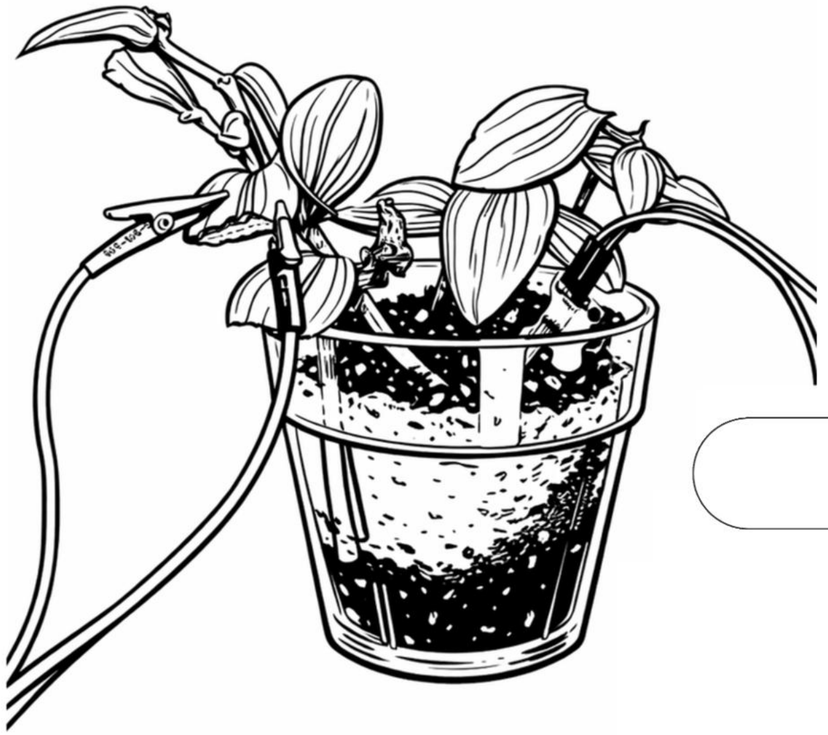
At the center of the system there is a real living plant.
The plant is not decorative and not treated as a simple sensor.
It is understood as a living physiological system whose internal state actively shapes the behavior of the installation.
The plant introduces a non-human intelligence and a non-human sense of time.

LIVING SYSTEM

PHYSIOLOGICAL STATE

PLANT SIGNALS

The plant contributes to the system through two types of signals.
Soil humidity is treated as a physiological state: slow, cumulative, and non-intentional.
Bioelectrical micro-variations reflect metabolic and stress-related processes.
These are not symbolic messages, but biological processes that influence the system's behavior.



HUMIDITY

BIOELECTRICAL ACTIVITY

THE SYSTEM / BREATHING

AIR

SOFT ROBOTICS

BREATHING

THE HUMAN

The human enters the system through a heartbeat sensor.
The heartbeat is involuntary, rhythmic, and unstable.
The human does not control the system, but introduces perturbation.
This places the human body on the same level as the plant and the machine.

EMBODIED SIGNAL

PERTURBATION

CO-REGULATION

The system does not follow an input–output logic.
No single signal determines the outcome.
Behavior emerges from resonance, negotiation, and co-regulation between different agents.

NEGOTIATION

RESONANCE

TEMPORALITIES

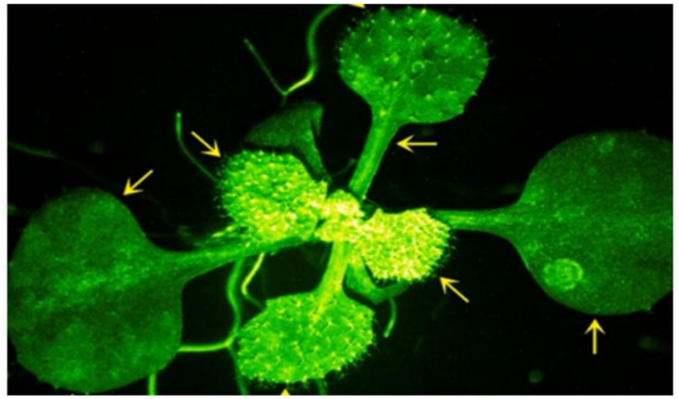
The project brings together different temporalities.
Plant signals evolve slowly.
The breathing system operates at a medium pace.
The human heartbeat introduces faster fluctuations.
The system does not synchronize time — it allows coexistence.

MULTIPLE TIMES

FRAMEWORK

SCIENTIFIC FRAMEWORK

The project is grounded in research on plant physiology and plant behavior, and can be read through posthuman perspectives.
Studies by Stefano Mancuso, Baluška, Davies, Trewavas and Gagliano describe plants as sensing, adaptive and distributed systems.



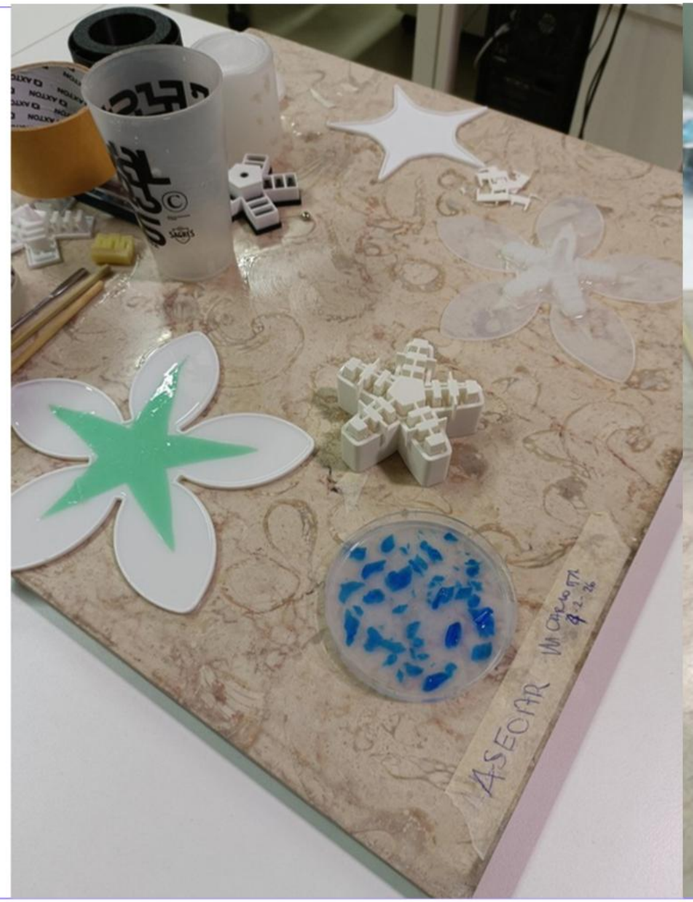
DISTRIBUTED INTELLIGENCE

POSTHUMAN FRAMEWORK

At the same time, posthuman thinkers such as Haraway, Guattari, Latour and Deleuze help frame the project as a relational, more-than-human system.
These frameworks are not illustrated — they are materialized.

MORE-THAN-HUMAN

FABRICATION & PROCESS



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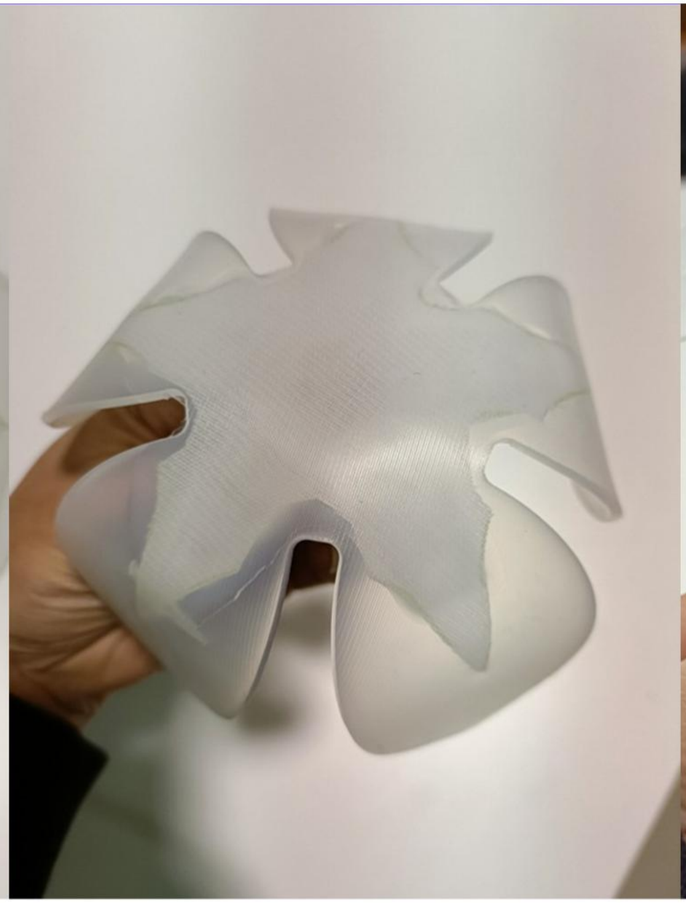


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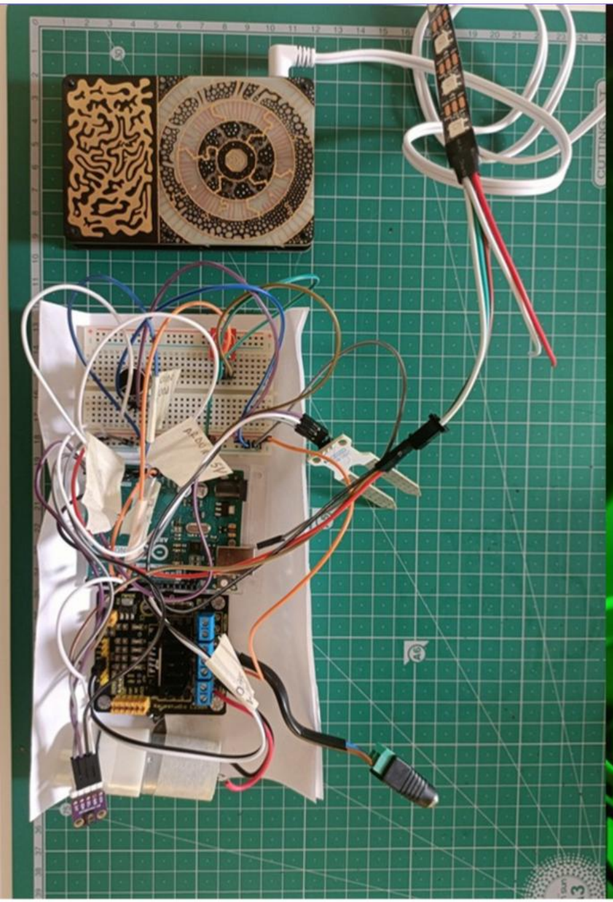
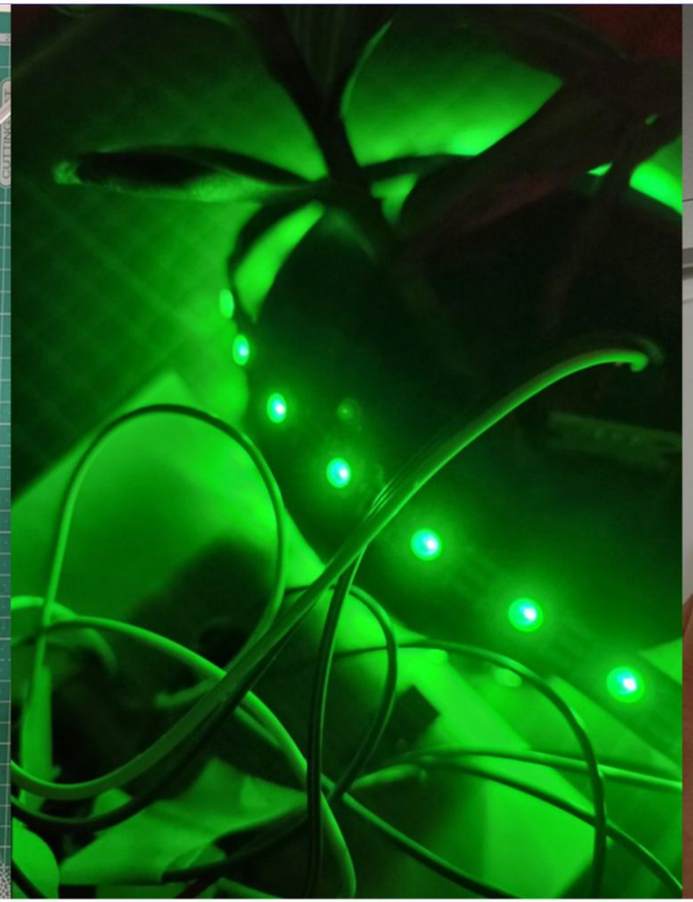

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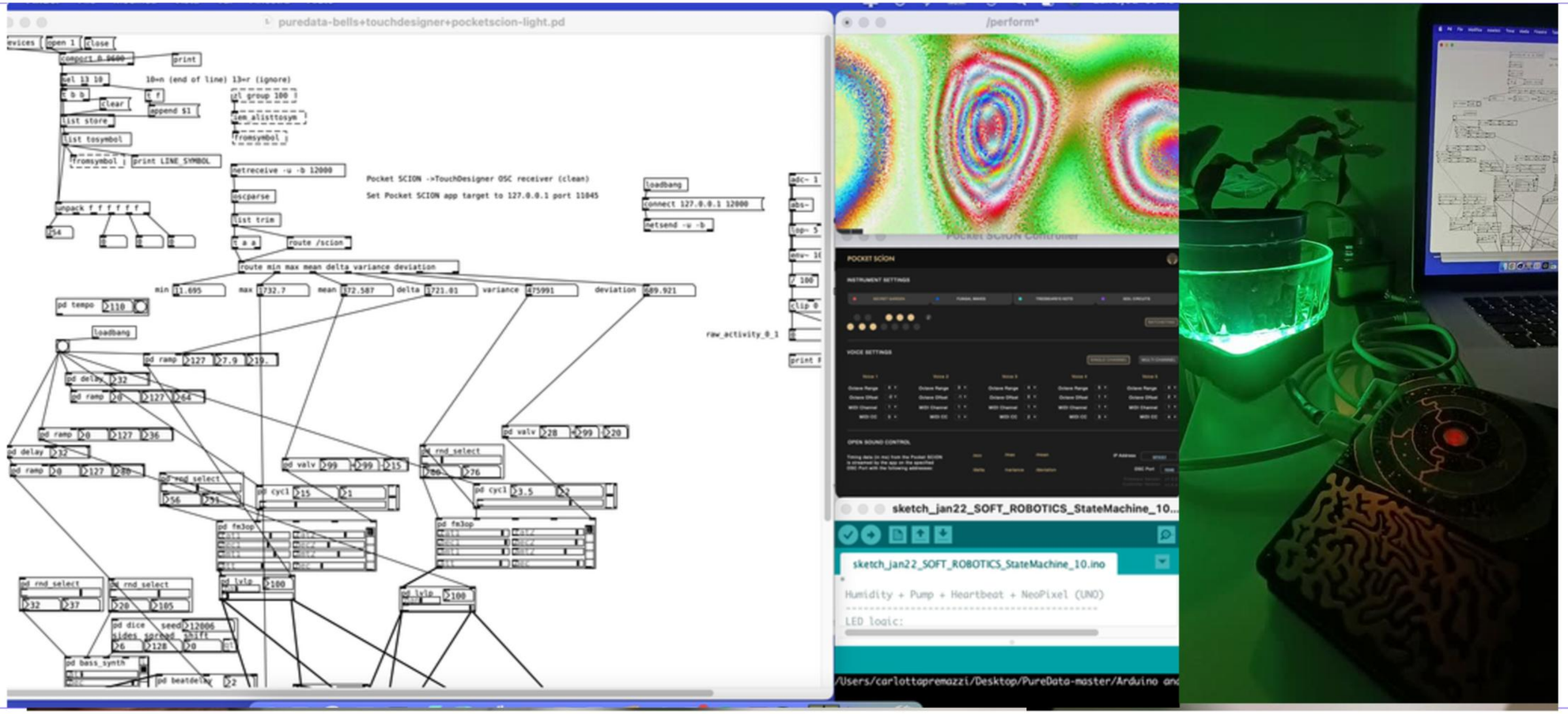


CONTEXT & TRAJECTORY

FUTURE ECOSYSTEMS

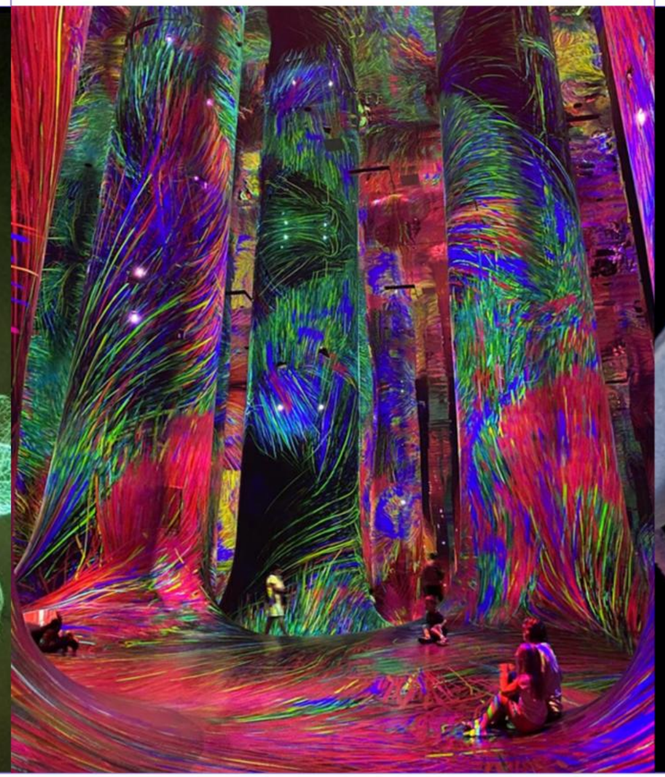
EXHIBITIONS

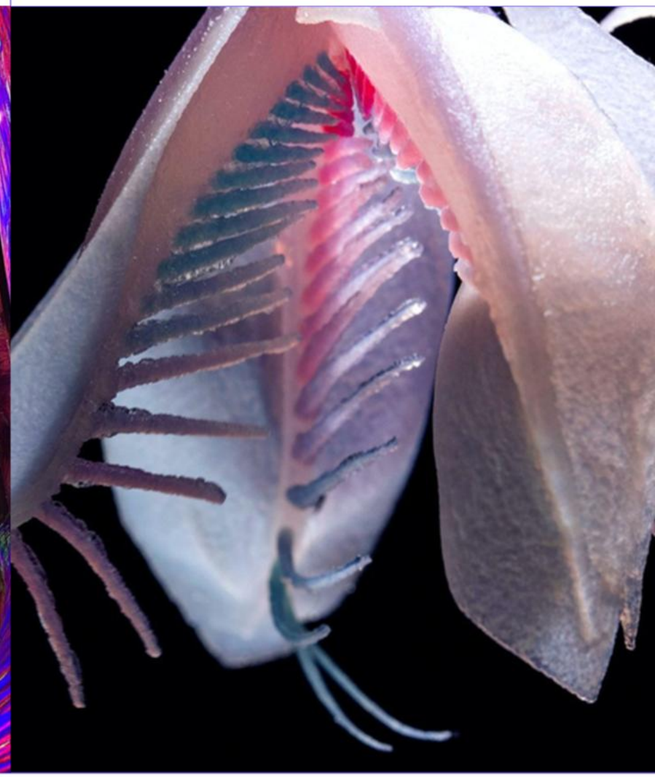
RESEARCH

Radical Signals is situated within the current ecological context, where non-anthropocentric models of interaction are urgently needed.
It speaks to curators, researchers and institutions working on posthuman ecologies, bio-interactive installations and sustainable design.
Rather than a single object, the project opens a long-term research trajectory.
Radical Signals proposes a system where plant, human and machine signals co-regulate, allowing behavior to emerge from physiology rather than control.

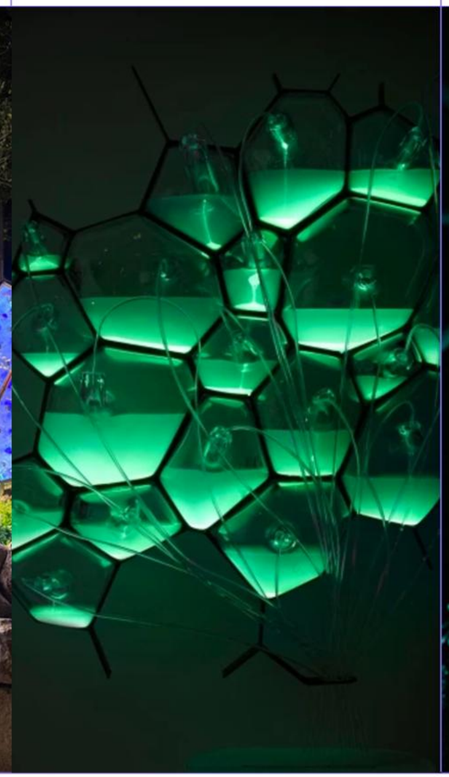
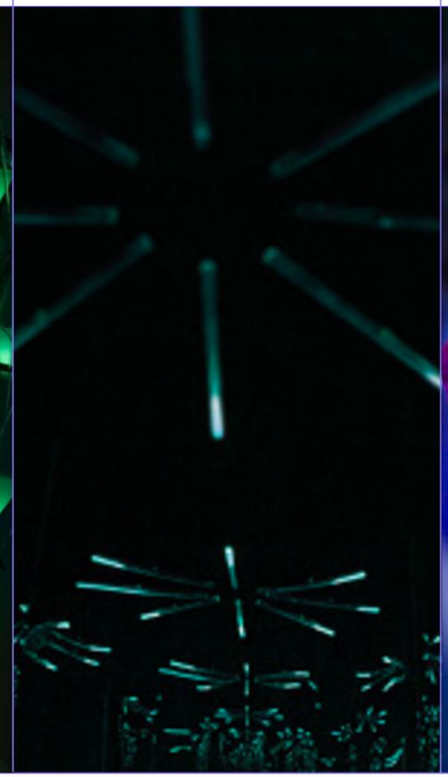
VISUAL INSPIRATION/REFERENCES

ALGAERIUM BIOPRINTER MARIN SAWA	LET IT GLOW LAMP MARIANA FOLBERG	PHENOMENA TEAMLAB	CHROMATOSE MARK WILSON





VISUAL INSPIRATION/REFERENCES

STUDIO DRIFT SHYLIGHT	PNAT PROJECT NATURE THE HIDDEN PLANT COMMUNITY	PHILIPS BIO-LIGHT	ONE LUMINOUS DOT TERESA VAN DONGEN	STUDIOROOSEGAARDE GLOWING-GARDEN	ECOLOGICSTUDIO H.O.R.T.U.S. XL ASTAXANTHIN.G
					

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