

HAPTIC PETALS

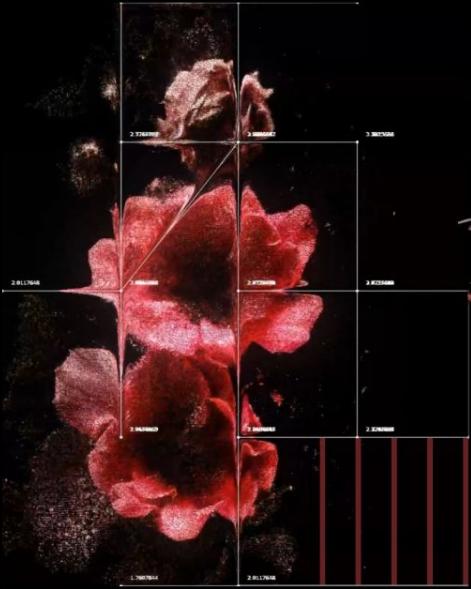
Designed by:

Mingzhao Du Yuanchen Feng

Project Motivation

Technology and Nature, Natural growth and human influence

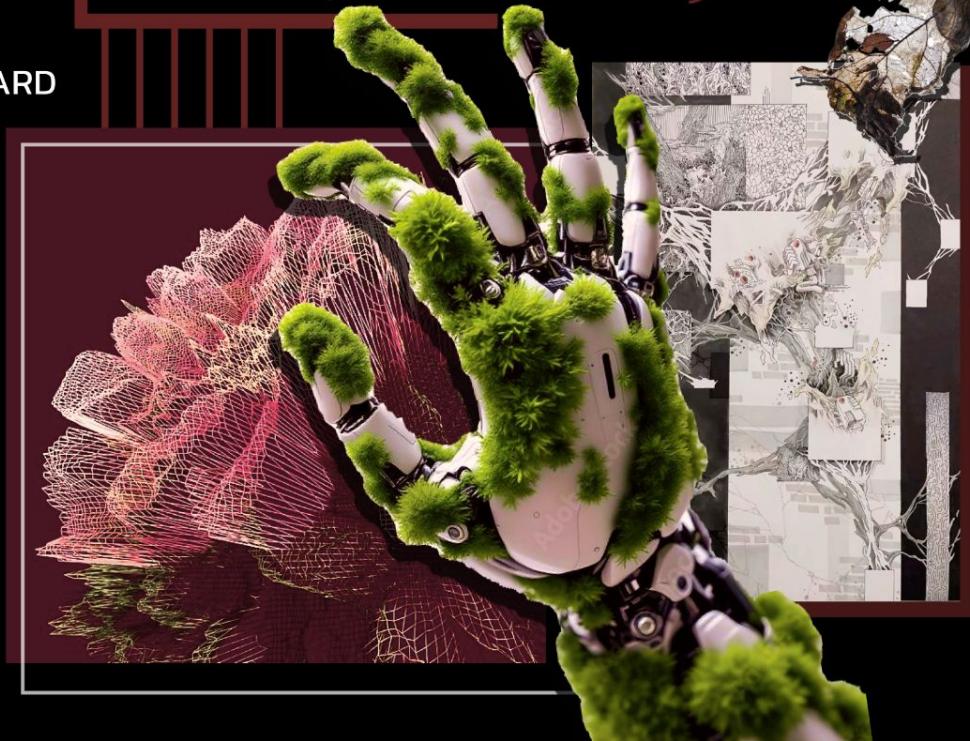




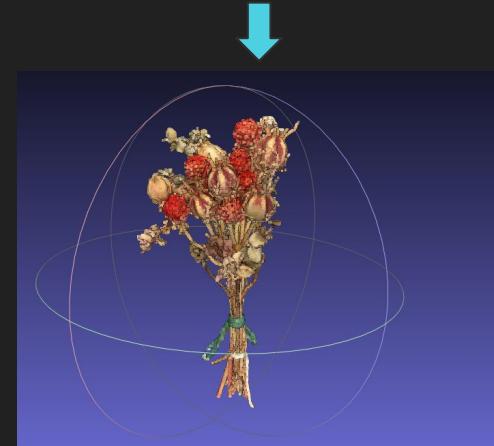
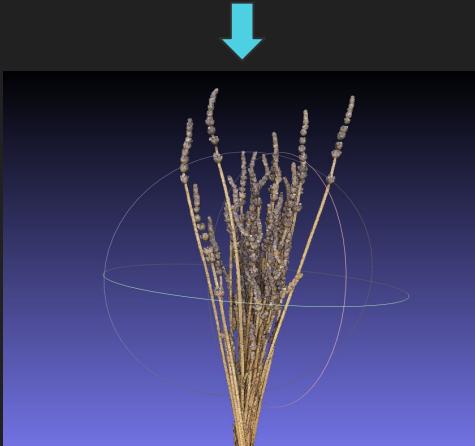
HAPTIC PETALS

VISUAL MOOD BOARD

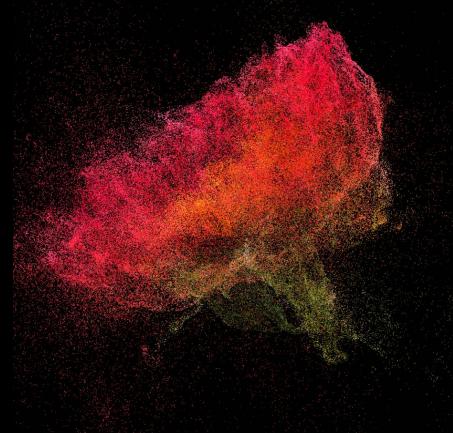
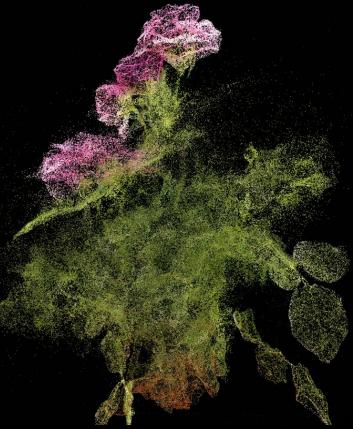
HAPTIC PETALS explores how gesture and sound shape real-time generative visuals. Using TouchDesigner and Leap Motion, a digital flower fragments and reforms, expressing emotional rhythm through embodied interaction.



From Garden to Geometry

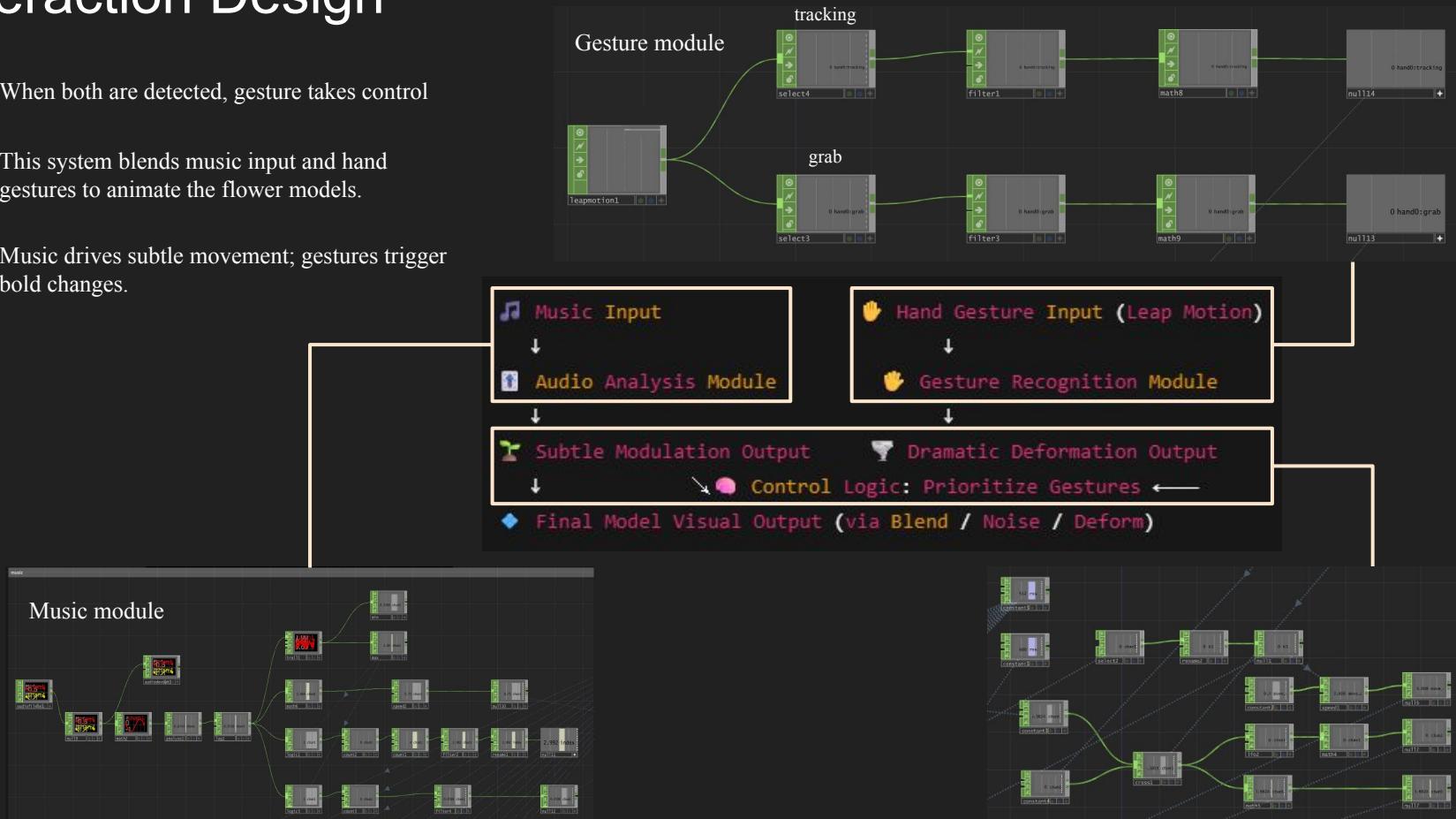


All Floral Models



Interaction Design

- When both are detected, gesture takes control
- This system blends music input and hand gestures to animate the flower models.
- Music drives subtle movement; gestures trigger bold changes.



Interaction Design



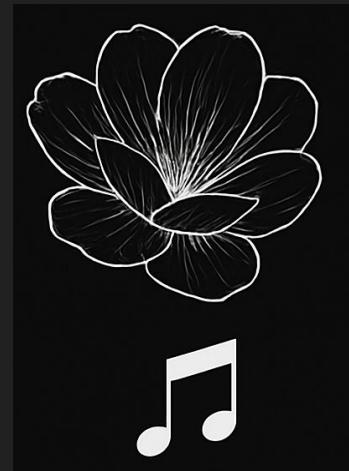
Closed Hand → Disruption and Fragmentation

A clenched hand triggers the flower to shatter, symbolizing forceful control, tension, and ecological rupture.



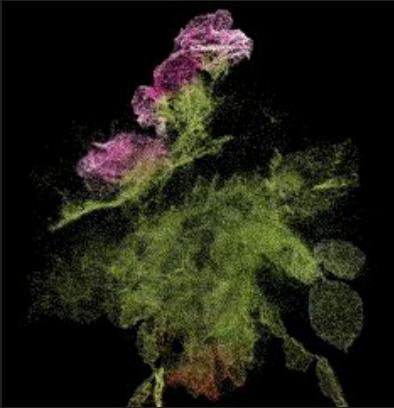
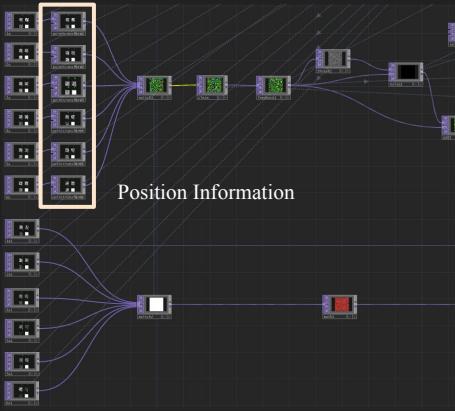
Open Hand → Balance and Flow

An open gesture becomes an act of care — enabling not just visual beauty, but digital co-being.



Music → Environmental Rhythm

Autonomous Rotation



All floral models are imbued with a subtle, autonomous rotation behavior, centrally governed by null5. Rotation values (Rx, Ry, Rz) are dynamically modulated through noise and math operators, generating non-repetitive, organic motion patterns.

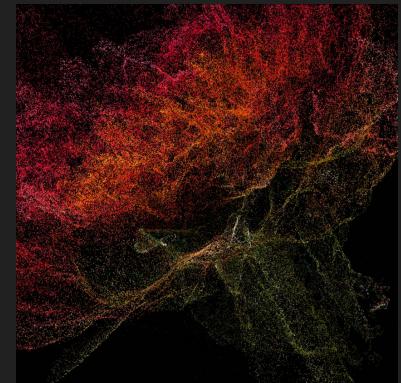
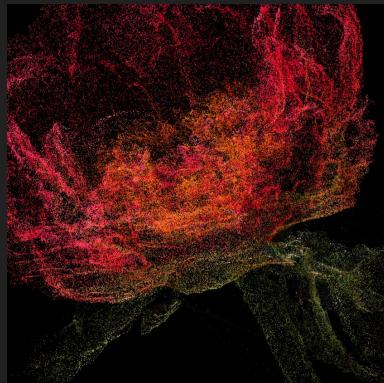
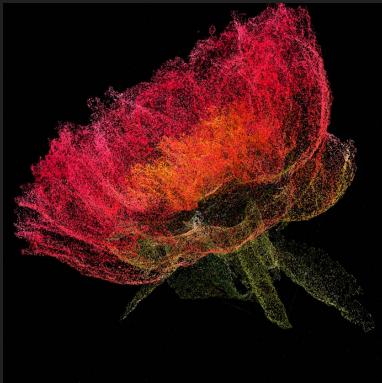
The Rhythm of Digital Life



This rotation is not merely a visual embellishment, but also symbolises the ‘internal rhythm’ of digital life forms.

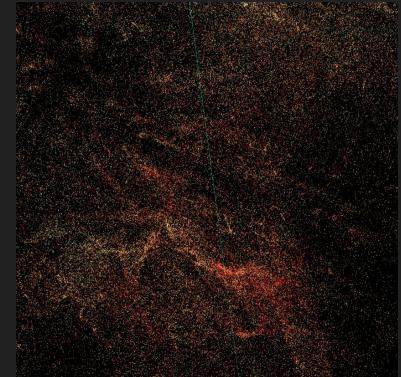
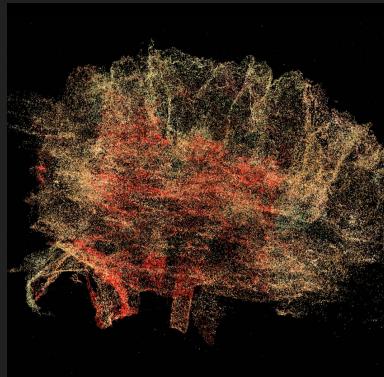
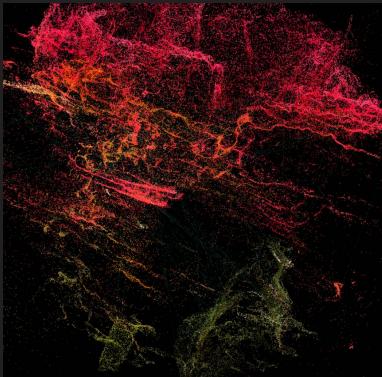
By spinning continuously, even without user input, the digital flower maintains a state of **ambient vitality** — a hybrid organism that feels, waits, and responds.

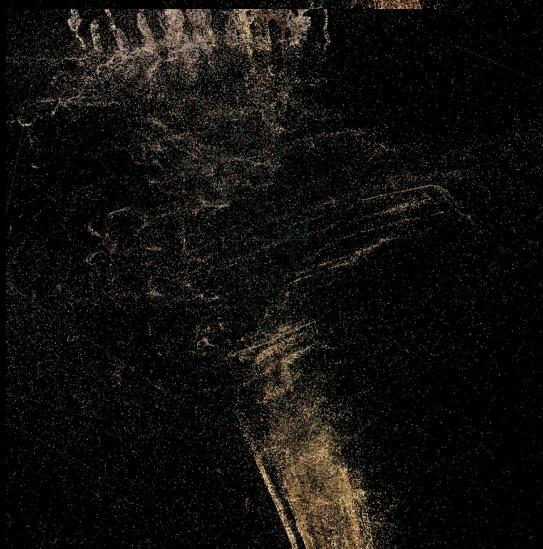
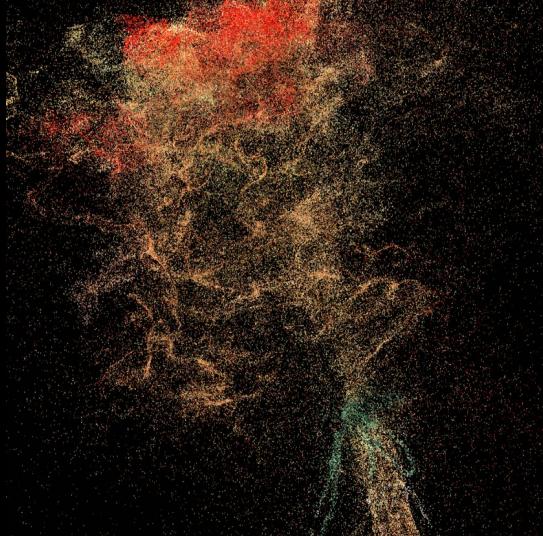
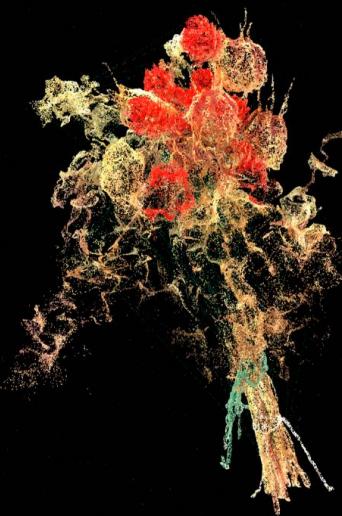
Visual Transformation: From Form to Particle Ecology



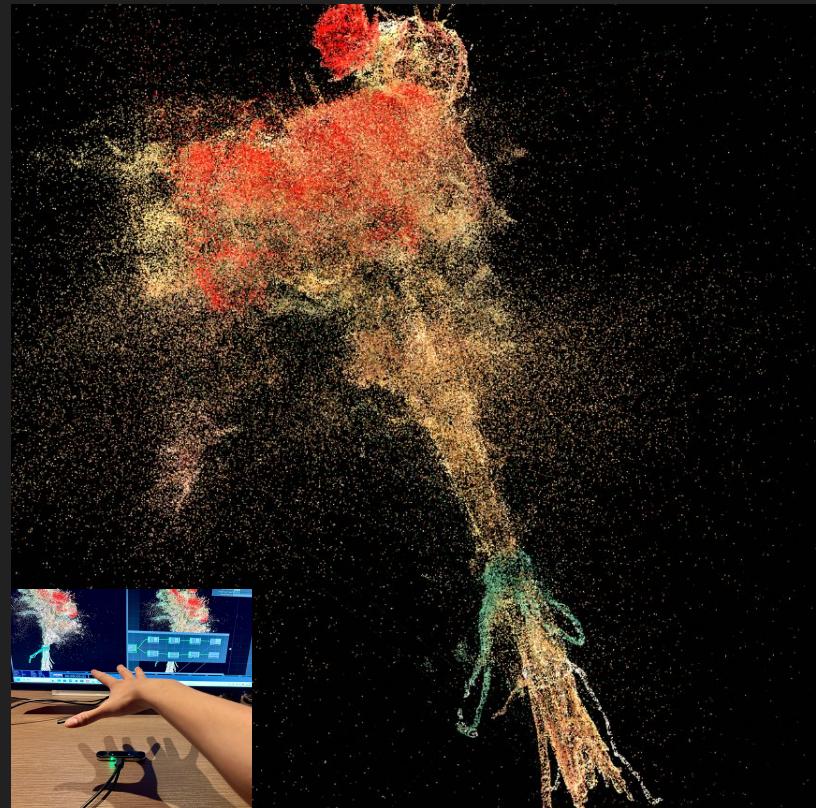
This transformation captures the flower's gradual deconstruction—from a tangible, organic form into a flowing field of particles.

Each frame responds to real-time audio rhythms and user gestures, producing a dynamic loop of disintegration and reformation within the visual space.





Hand-Driven Transformation in Real Time



Test and Feedback



Open Hand



Closed Hand

Thank You!