FABRICADEMY
textile and technology academy

FAB LAB ARMENIA
EDUCATION FOUNDATION

# THE HANDS CAN TELL A LOT

**The body is an archive**—a living landscape of time where every wrinkle, scar, and mark becomes a fragment of an untold story. These traces, often overlooked, hold the memory of movements, emotions, labor, and experiences etched into the skin. **The Hands Can Tell a Lot** is an interactive scenography that transforms the intimate language of the body into a shared, immersive experience. Focusing particularly on hands as expressive tools of identity and memory, the project invites participants into a poetic dialogue with time.

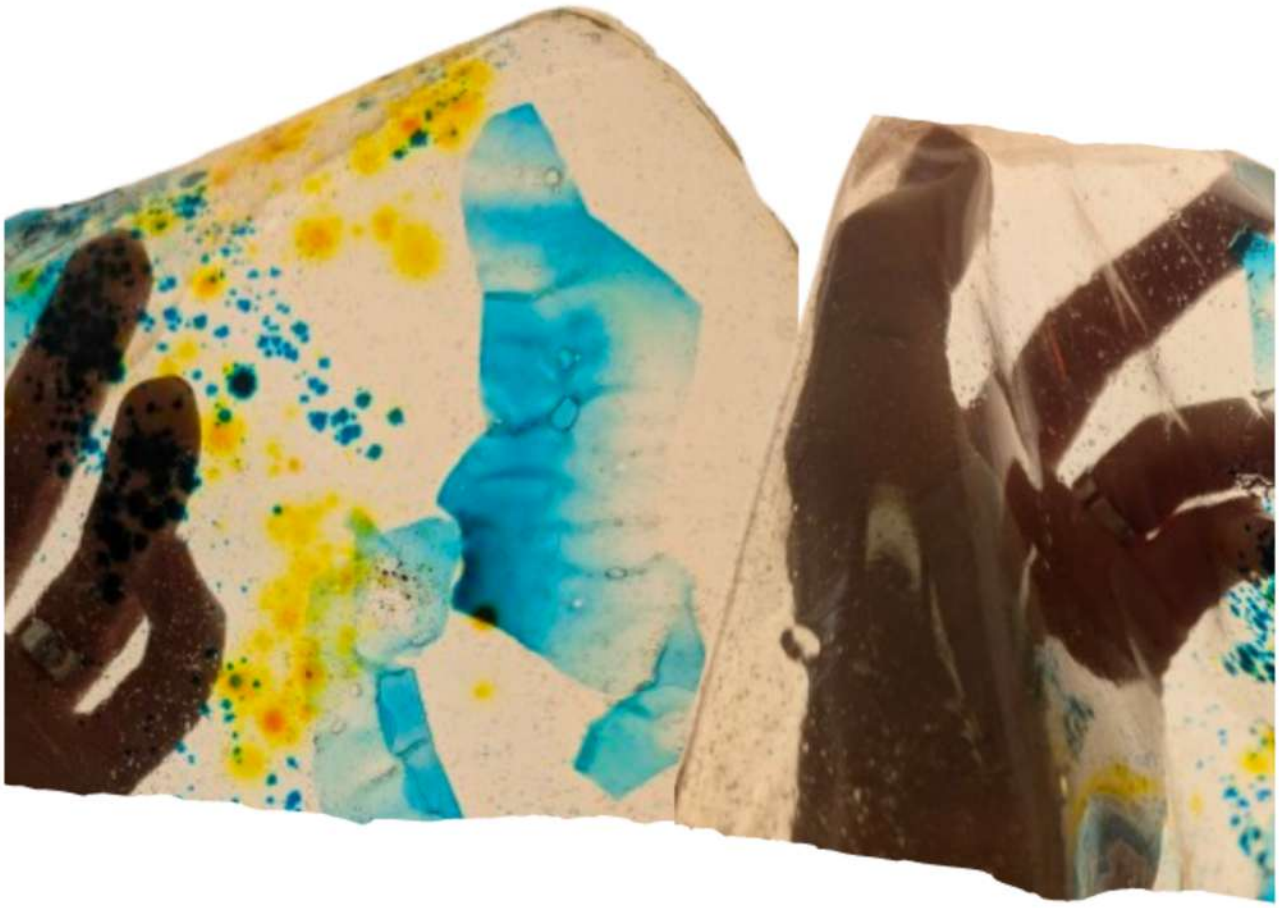
# INTERACTIVE SCENOGRAPHY

The project is inspired by **Isabelle Bonté's Équation différentielle stochastique**, particularly her poetic use of workers' hands as embodied archives of labor and resistance within chaotic economic systems.

**The Hands Can Tell** a Lot installation incorporates a custom-designed controlling glove, which serves as an interface to activate the reactive "new skin" made from bioplastic. This skin responds subtly to the movement of the glove, creating a sensory link between the wearer's gestures and the material's behavior—mirroring the interplay between physical memory and technological expression.

# WIRED GESTURES

The 'skin' **glove** is constructed from a two-axis stretchable Lycra fabric in a skin-tone color, selected for its elasticity and ergonomic conformity to the human hand. **Flex sensors**, fabricated using layers of **conductive textile** and **velostat**, are embedded along key articulation points. These sensors function based on changes in electrical resistance caused by mechanical deformation—specifically bending motions—rather than applied force. The resulting analog signals are processed by a **Xiao ESP32-C3** microcontroller, which is soldered onto a **FabriXiao** board to enable compact integration.



# NEW SKIN – RECIPE

**Water: 300 mg**
**Gelatin: 38 mg**
**Alginate: 1 mg**
**Glycerin: 35 mg**

This **bioplastic "skin"** is designed to mimic the softness, flexibility, and elasticity of human tissue. After the initial curing process, the material is carefully shaped into intricate **origami folds**, which imitate the natural wrinkles and movements of the skin. These folds are not merely aesthetic; they are an essential aspect of the bioplastic's ability to bend and stretch, reacting dynamically to external stimuli.

# BIOFORM

The **integration** of origami-shaped, naturally wrinkled bioplastic with a servo motor mechanism creates a dynamic, **responsive surface** that emulates the behavior of human skin. **Controlled by the glove**, the bioplastic deforms organically, reflecting the fluidity of human skin as it reacts to movement and pressure, mimicking the natural flow of the body's motions.

This interaction allows the glove to guide the bioplastic's subtle transformations, where each wrinkle and fold responds to the user's gestures, merging tactile sensation with technological precision. The result is a **wearable system** that seamlessly blends function with the organic qualities of skin, offering an intuitive interface between technology and human body.