

Chère Nila

/tʃεr'nilə/

Project Description

Chère Nïla
/tʃer'ni:lə/
Russian: Чернила, meaning: ink

«What if we could draw with our breath?»

Chère Nïla is a two-player drawing game designed to foster relaxation and co-creation through coherent breathing.

We are convinced that drawing should encourage relaxation and amusement, but most importantly: drawing experiences should be shared.

Chère Nïla envisions a future of drawing that is not just innovative but also sustainable.

By reading biometric data obtained from eco-friendly bio-plastic wearables, Chère Nïla turns you, the user, into the input of this experience.

The Chère Nïla experience is accessible from any location simply by utilising the web-based Chère Nïla application.

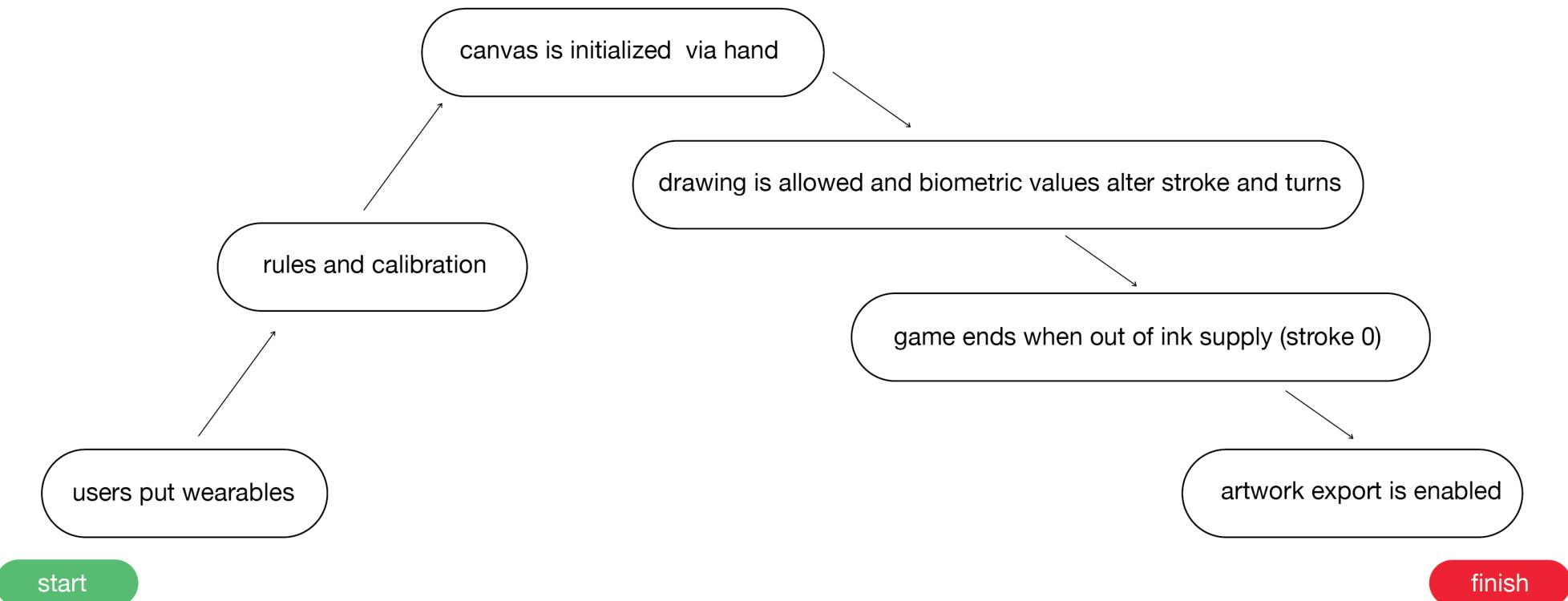




User Journey

How does it work?

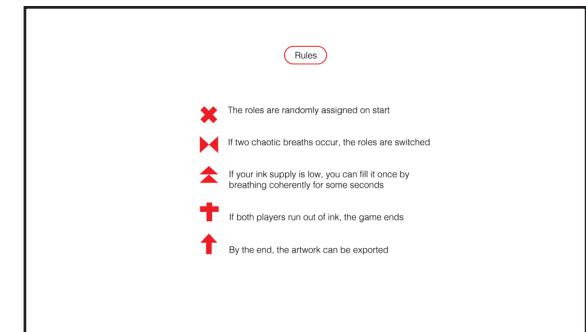
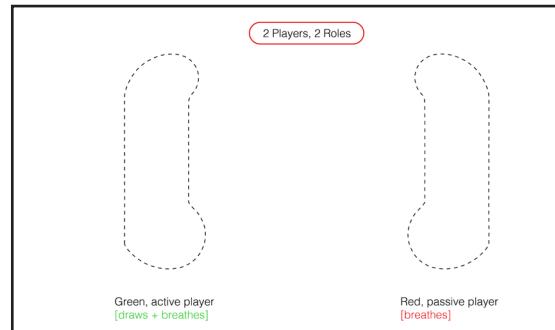
In this game, two players have to calmly coordinate themselves to create a novel artwork via hand detection. Players have roles. There is an active player and a passive player. The active player has to coherently control his breathing while drawing at the same time, the passive player has to just breath coherently. If chaotic breathing patterns are detected, the ink supply will decrease and roles will be switched. The game ends when the players run out of ink, which enables the export of the experience's souvenir: the co-created artwork.



User Journey

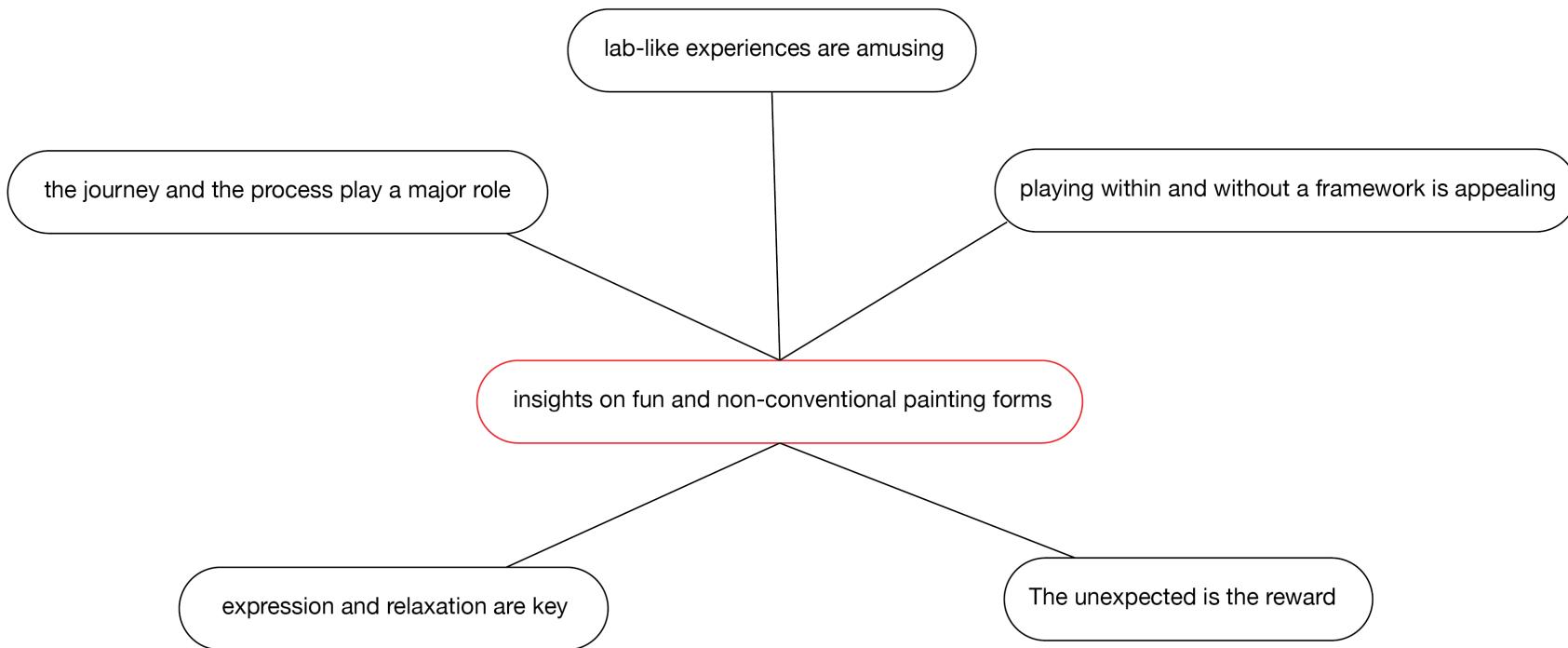
The Chère Nïla experience: how everything begins.

The user journey starts by putting on the eco-friendly wearables and learning about the rules of the game. Afterwards, the wearables can be calibrated and the experience can be started via hand pinch.



Field observations

Key Insights on fun/non-conventional ways of painting:
surveys on the importance of fun, experimentation, enjoying
the process despite the final outcome and non-conventional
ways of painting.



Field observations

Key insights on the topic of fun and non-conventional ways of painting as a result of research and testing. The data was collected during the prototyping process and during the test day.

| Test day Insights | Users 1 + 2 | User 2 + 3 |
|-------------------|---|---|
| Insight 1 | Focus on collaboration rather than on competition | Focus on the collaborative aspect of the project |
| Insight 2 | Assign colors to players | Eventually save data for a database of created artworks |
| Insight 3 | Don't make the ink supply visible, use the stroke as ink supply | Keep the export function idea |
| Insight 4 | Depict game instructions digitally | |

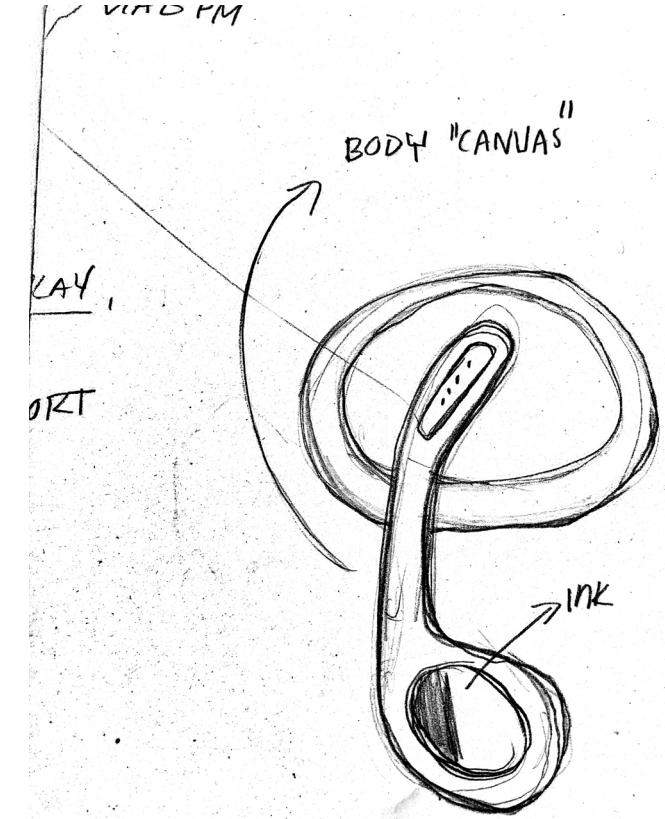
Visual and Material Moodboard

Research on bioplastic and the use of seaweed and bioprinting in the product design industry. Some references were Willem de Koonig Academy in the Netherlands as well as dutch designers Eric Klarenbeek and Maartje Dros.



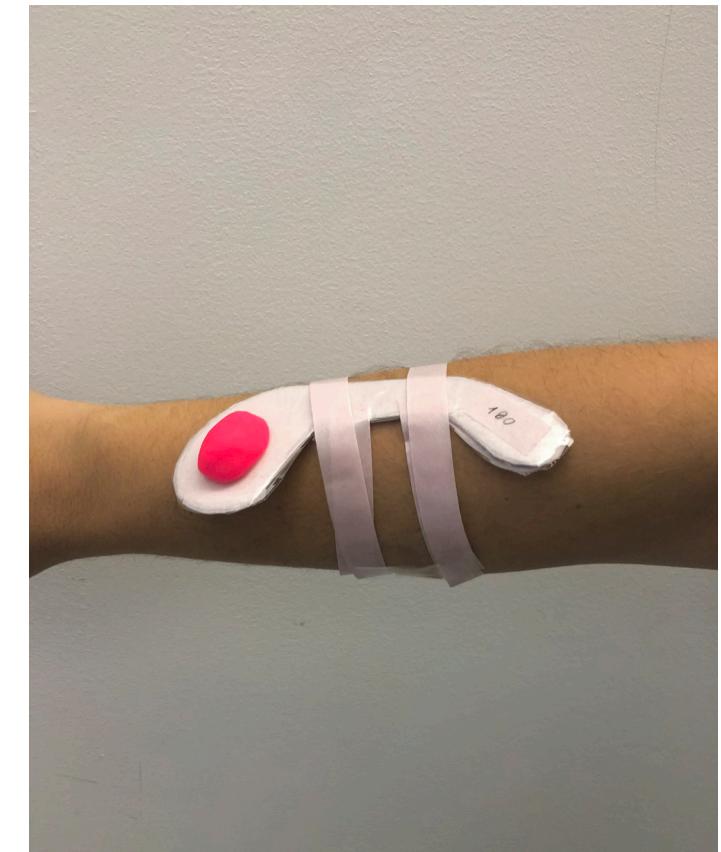
Shape research

Shape Research and Material Explorations. Variants of shapes inspired by the Caran D'Ache old logotype and diverse bioplastic explorations to test material flexibility, reduction of size, texture and also modularity of the shape.



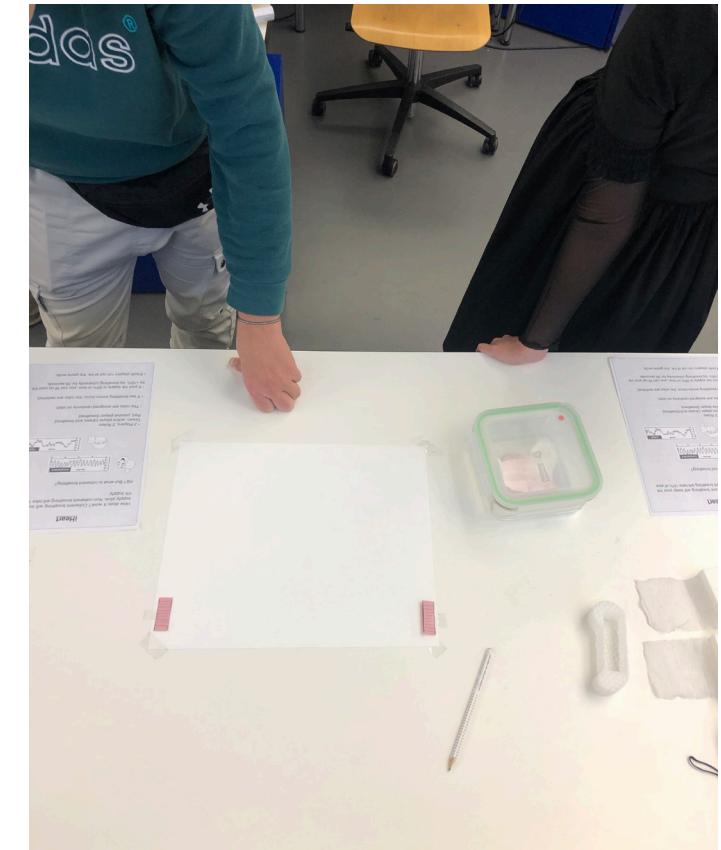
Paper Prototypes

The shape of the wearabale resemble the letter C of the old Caran D'Ache Logo. The wearable iterated through time while adapting to the electronics and ergonomy but still staying true to its characteristic shape.



User Tests

User tests conducted during the test day with the students of MD2. These tests led to several insights regarding the logic, visuals and overall experience of the project. The created artworks during test day depict astonishing creations that arose from the breathing coordinations.



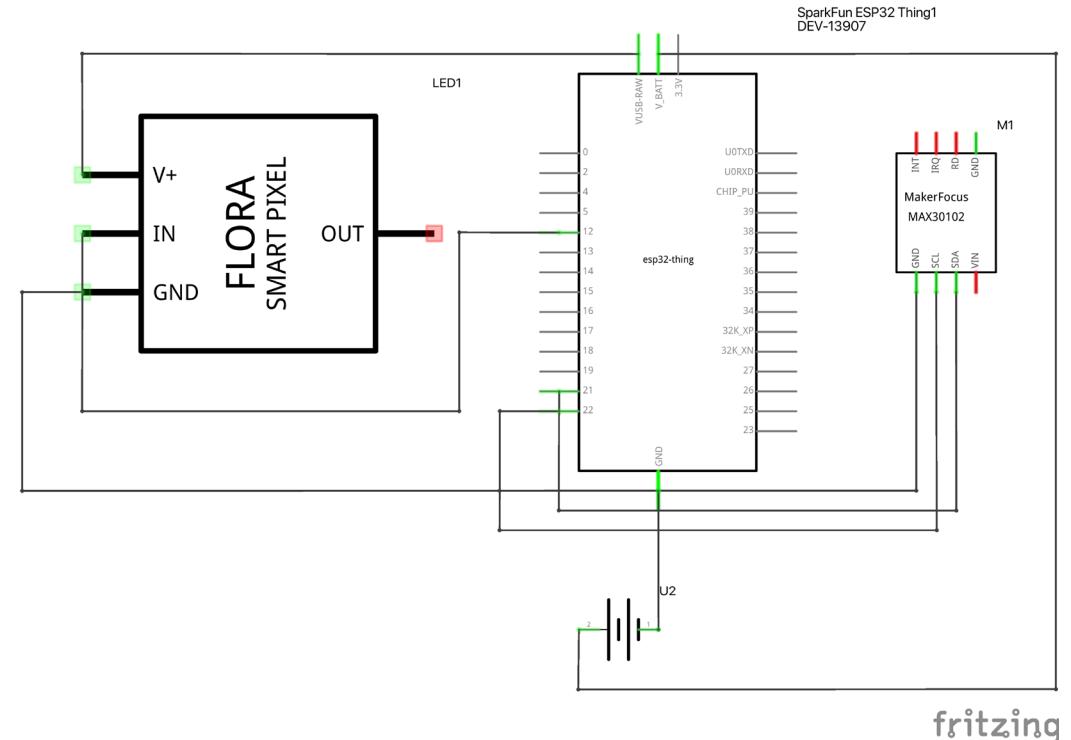
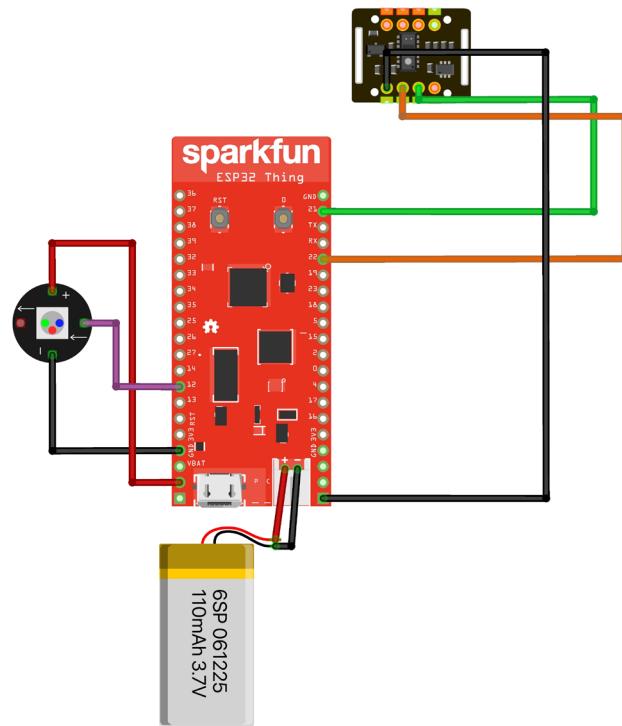
Electronics

Table of tech parts and their respective maximum and minimum voltages as well as currents in order to diagram the electronic schematic and for battery and powering considerations.

| Techpart | Min V | Max V | Current |
|-------------------|-------|-------|---------|
| BPM Sensor | 1.8 | 2.0 | >1mAmp |
| ESP 32 Thing Plus | 2.2 | 3.6 | 80mAmp |
| Neo Pixel LED | 3.7 | 5.5 | ~60mAmp |
| Total: | | | 141mAmp |

Electronics

The ESP32 Thing Plus provides Bluetooth, which enables a wireless connection with the Web-based Application to which the device will be sending biometric data in real time.



Plan Drawings

Materials:

Outer shell: Bioplastic out of Agar-Agar, Glycerine, Water and Linseed Oil.

Inner shell: PLA 3D Print

Scale: 1:1 in mm

