

Pinocchio Beyond the Canvas

Interactive physical digital painting by Carmine Grasso



2026 | Mixed media on canvas | 82 × 112 cm | Approx. 5 kg

Concepts and mixed media

The work

Pinocchio Beyond the Canvas is an interactive physical-digital painting in which touch activates moving images and voices. I painted Pinocchio, the Fox, the Cat, the Talking Cricket, the little house and the surrounding geometric forms on canvas, then transformed selected painted areas into capacitive interfaces using conductive material. When a visitor touches a character, Arduino detects the change in capacitance and sends a serial command to a Raspberry Pi, which plays the corresponding audiovisual narrative through the screen and speakers integrated into the artwork. The animated sequences were developed with Grok from images of my own painting. The work asks where authorship resides when a handmade image becomes data, movement and voice. AI does not replace the painting or make the artistic decisions: it extends a material work whose concept, figures, interaction, electronic architecture, narrative direction and final selection were conceived and realised by me.

The human contribution

I did not ask AI to invent an artwork for me. I first created the painting, its figures and its symbolic world. I then designed the electronics and software that allow the public to awaken that world through touch. AI became a controlled means of giving temporary movement and voice to images that remain rooted in my hand, my decisions and my responsibility as an author.

Why this work belongs in Human After All

The work makes the relationship between human intention and machine generation physically visible. A visitor first encounters brushwork, pigment and recognisable characters. Only through bodily contact does the computational layer emerge. The human hand appears three times: in painting the image, in engineering the system and in the visitor's touch. AI enters between these gestures, not as an autonomous author, but as a medium whose outputs acquire meaning through selection, placement and interaction.

How the interaction works

Stage	Description
1 Painted interface	Conductive material is integrated into selected figures and narrative areas.
2 Human touch	The visitor changes the electrical capacitance of the selected painted area.
3 Sensor and Arduino	The capacitive sensor detects the change and Arduino identifies the touched character.
4 Serial command	Arduino sends a character-specific command to the Raspberry Pi.
5 Audiovisual response	The Raspberry Pi plays the assigned video and voice through the integrated screen and speakers.
6 Automatic reset	After playback, the painting returns to its listening state without external configuration.

Integrated system

The artwork incorporates the display, speakers, Arduino, Raspberry Pi, capacitive sensing and startup software. It is plug and play: after connection to power, the system starts automatically in approximately 50 seconds. The technology remains subordinate to the painted surface and supports direct, intuitive use.

AI process and authorship

I used Grok to generate animated audiovisual sequences from photographs of characters that I had personally conceived and painted on the canvas. Before using AI, I determined the visual composition, the characters, the active touch areas and the narrative role of each element. I supplied my own images as the visual source, wrote and refined the narrative intentions, evaluated the generated movements and voices, rejected unsuitable outputs, requested new versions and selected the sequences that remained consistent with the painting. I then edited and assigned each approved sequence to a specific touch event. I personally designed and implemented the conductive surface, capacitive sensing, Arduino serial protocol, Raspberry Pi playback logic, integrated display, speakers and automatic startup. The AI output is therefore one component within a larger handmade and programmed work. The free creative choices concerning meaning, form, interaction, timing, selection and final presentation are mine.

Originality and rights

The painting and all source images are original works by Carmine Grasso. The artist controls the concept, composition, painted figures, conductive interface, electronics, software logic, narrative structure and final selection of audiovisual material. Submission of the work does not rely on third-party imagery or another artist's painting. Any submitted demonstration video must likewise contain only material whose rights are controlled by the applicant.

Photographic documentation of the process

The following images document the wiring stages and the integration of the electronics onto the back of the fabric. They illustrate the continuity between the responsive painted surface, capacitive sensors, Arduino, Raspberry Pi, screen, and speakers, culminating in an autonomous plug-and-play configuration.



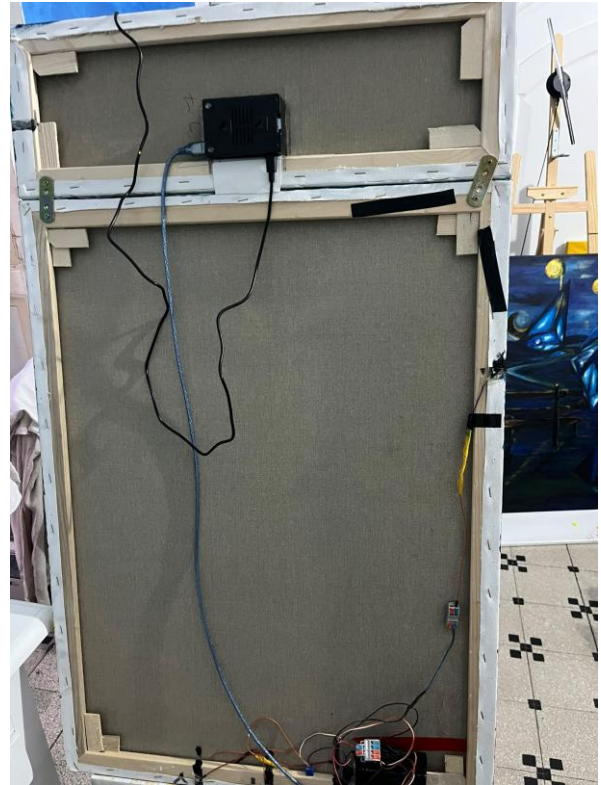
1. Predisposizione del vano. Dopo aver completato la parte pittorica principale, ho costruito la sezione superiore della tela e preparato l'apertura destinata allo schermo.



2. Collaudo dello schermo integrato. Il monitor, inserito nella struttura, riproduce uno dei video ottenuti dalle immagini originali del mio dipinto.

Wiring and Control Unit

I set up and organized the connections between the conductive areas, the Arduino, and the Raspberry Pi, calibrating the thresholds for each sensor and verifying the stability of touch recognition.



Final System Integration

The final configuration houses the processing unit, power supply, and speakers within the enclosure. Installation requires no external computers or intervention by the exhibition venue: once connected to the power supply, the software launches automatically, and the artwork is ready to respond to the public's touch.



Retro dell'opera nella configurazione finale: Raspberry Pi e diffusori acustici integrati nel telaio.

Demonstration

Public video

<https://youtube.com/shorts/wxx90BT9Vrg>

<https://youtube.com/shorts/ICAf3pjhGO4?feature=share>

Portfolio

https://www.carminegrasso.it/blog/images/documenti/Artistic_Portfolio_2026_English.pdf

Artist

Carmine Grasso is an Italian artist, computer engineer and researcher based in Ariano Irpino. He graduated in Computer Engineering with honours and holds a PhD in Information Engineering from the University of Sannio. His artistic research, which he defines as Dualism, connects figurative painting and geometric abstraction, material presence and digital systems, order and instability. He creates works in which electronics, software, sound and participation expand the narrative capacity of painting.

Education

Degree in Computer Engineering with honours; PhD in Information Engineering, University of Sannio

Research profile

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