

**Then Try This • Algorithmic Pattern Salon**

# A Slow Motion Display

**Franz Ferdinand Richter**

**Then Try This**

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## ABSTRACT

The Slow Motion Display, developed during a master's thesis, explores the concept of slowing down screen representations through design, challenging prevailing screen aesthetics. It employs conductive, thermochromic yarn on an unprimed canvas in a 16x16 pixel matrix, allowing for color changes when a low 5V voltage is applied. The display's intentionally slow operation, taking around 20 seconds per pixel change, transforms two-dimensional pixels into three-dimensional voxels, highlighting the underlying technology with over 750 cables.

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### Slow-Motion-Display

The Slow Motion Display, conceived during my master's thesis, explores the concept of decelerating screen presentations through design interventions, challenging conventional screen aesthetics. It employs conductive, thermochromic yarn intricately embroidered into an unprimed canvas, forming a 16x16 pixel matrix. This yarn facilitates color transitions between black and white, driven by a low 5V voltage application. Deliberately, the display operates at a measured pace, requiring approximately 20 seconds for a single pixel to transition.

The square pixel's geometric form is emulated by the cube, elevating the ostensibly two-dimensional pixel to a three-dimensional voxel. The intricate network of over 750 cables, extending from the yarn behind the canvas, serves as a testament to the underlying technology.

In this context, the presentation of the display medium finds expression in a newly crafted medium - that of the thread matrix. It transposes essential characteristics of a display, such as orderly pixel arrangements and motion image rendering, into the realm of textile yarn, a screen-remote medium. The intentionally leisurely movement of content on the Slow-Motion Display invites viewers to engage for extended periods, encouraging patience and contemplation. As viewers grant the display time to evolve, their awareness expands to encompass the material, the cube, and the exposed technology.

During this viewing experience, the medium through which the content is presented momentarily fades into the background. Eventually, awakened curiosity redirects the viewer's focus to the entire object, forming a unified interplay of media (hypermediacy).

In terms of content, the display features a cellular automaton (CA) that emulates the fundamental principles of "Langton's ant." This emulation adheres to a straightforward deterministic rule set:

1. When on a white square, turn left 90 degrees; on a black square, turn right 90 degrees (LR).

2. Alter the square's color (white to black or black to white).
3. Progress to the next square in the current viewing direction.

Thus, the fundamental logic of Langton's ant mathematically simulates the biological organization of life through the actions of a single ant. The Slow Motion Display artfully encapsulates this logic within an object.

Consequently, the display operates beyond the scope of a conventional "display" medium for showcasing videos or movies. Instead, it possesses its own temporal rhythm, as the algorithm persists indefinitely.

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Figure 1