

Apparent Motion, Perceived Stillness: The Self At 50hz

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Project Overview

The self at 50hz is a kinetic installation exploring the threshold between perception and reality — the point where motion, through velocity, returns to stillness.

The work consists of a twelve-sided mirrored carousel rotating around its vertical axis. As it accelerates, the mirrors fragment and reassemble the surrounding space and the viewer's own reflection. When the carousel approaches frequencies near the human eye's perceptual limit (around 50 Hz), often referred to as the "Window of Visibility", the reflections fuse into an apparent stasis. Movement becomes image; observation becomes participation.

Scientific and Conceptual Context

The installation draws upon early animation technologies: the praxinoscope and zoetrope, whose spinning mechanisms transformed static drawings into motion by aligning mechanical rotation with the perceptual frame rate of the eye.

Here, the mechanism is inverted: instead of images producing motion, reflections in motion produce an illusion of stillness. The project references research into critical flicker-fusion frequency (CFF) which describes the temporal limits at which discrete light stimuli merge into continuity.

Artistic Inquiry

This experiment operates within a speculative framework: the world can only be known through the interplay between perception and thought. By "tampering" with the conditions of seeing — manipulating speed, reflection, and frequency — the work externalizes this interplay, creating a dialogue between observer and observed. As the mirrors fluctuate around the threshold of visibility, they destabilize self-perception, momentarily suspending the viewer within their own optical feedback loop.

The self at 50hz is both an optical study and a meditation on vision's limits — where the self oscillates at 50 Hz.

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