Immersive Art,
XR, Animatronics,
Sound, Performance,
Scent, and Speculative
Design

Portfolio

Immersive Art, XR, Animatronics, Sound, Performance, Scent, and Speculative Design

ARTIST STATEMENT

This body of work represents a collaborative, transdisciplinary research practice spanning immersive art, XR, animatronics, sound, performance, and speculative design. The projects are developed through artist, engineer, and researcher teams, often in partnership with academic labs, technologists, performers, and designers.

Rather than singular authored works, these projects function as living systems. They evolve as installations that integrate physical computing, embodied interaction, and narrative environments. Process is central to the work, with ideas emerging through iterative development, experimentation, and dialogue across disciplines.

Led by Thomas Tucker and Tohm Judson, each project is shaped through collaboration between artists, engineers, and performers. Technical experimentation, aesthetic inquiry, and conceptual research unfold simultaneously, allowing the work to evolve responsively across different contexts and exhibition spaces.

Across projects such as Drosera Obscura, Senses Swirling, and Visual Sensory Convergence, the team explores how sensory systems such as sound, movement, light, spatial computation, and interaction can be composed into immersive environments that respond to presence and participation. These works blur distinctions between installation, performance, and research, inviting audiences to engage not as passive viewers but as active participants.

While deeply collaborative, the work is guided by a clear artistic vision. The projects reflect on perception, ecological interdependence, and the shifting relationship between human and technological systems. Through collective authorship, the work aims to create environments that are not simply observed but inhabited, where meaning emerges through interaction, sensation, and shared presence.

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WORK IN PROGRESS 2025-26

DROSERA OBSCURA

Drosera Obscura is a deeply immersive XR project that dissolves the boundaries between the organic and the digital through a multisensory environment shaped by sight, sound, scent, and touch. Set within a speculative post-human bogscape, the experience invites participants to explore a living world of animatronic flora, reactive soundscapes, and tactile interfaces that blur the line between virtual and physical space.

Inspired by evolved carnivorous plants and their symbiotic relationships with sound and synthetic biology, the project transforms passive observation into active participation. Participants influence the environment in real time: disturbing digital foliage releases subtle fragrances, alters lighting patterns, and reshapes spatialized sound. These interactions expand VR outward, turning what is often an isolated medium into a performative, theatrical ecosystem that responds to human presence with both eerie intimacy and strange beauty.

At its core, Drosera Obscura examines ecological interdependence, embodiment, and the evolving relationship between technology and living systems, offering an immersive experience that feels at once alien, responsive, and alive.

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WORK IN PROGRESS 2025-26

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DROSERA OBSCURA

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SENSES SWIRLING 2023-24

SENSES SWIRLING

Senses Swirling seeks to bridge the divide between the digital and physical worlds by creating an experience that engages all five senses while transporting participants into a hyperreal environment. The project combines virtual reality with theatrical staging and puppetry, extending the immersive encounter beyond the headset and into the surrounding space.

What is typically an isolating VR experience is transformed into a shared, responsive world. Participants interact with physical objects that trigger visual, auditory, and olfactory responses, allowing touch and movement to directly influence the environment. Sound, light, and motion operate together to create a fluid sensory field that shifts in response to human presence.

By merging immersive technology with physical performance and set design, Senses Swirling explores how perception is shaped through multisensory engagement, inviting participants to experience reality as something malleable, responsive, and deeply embodied.

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SENSES SWIRLING 2023-24

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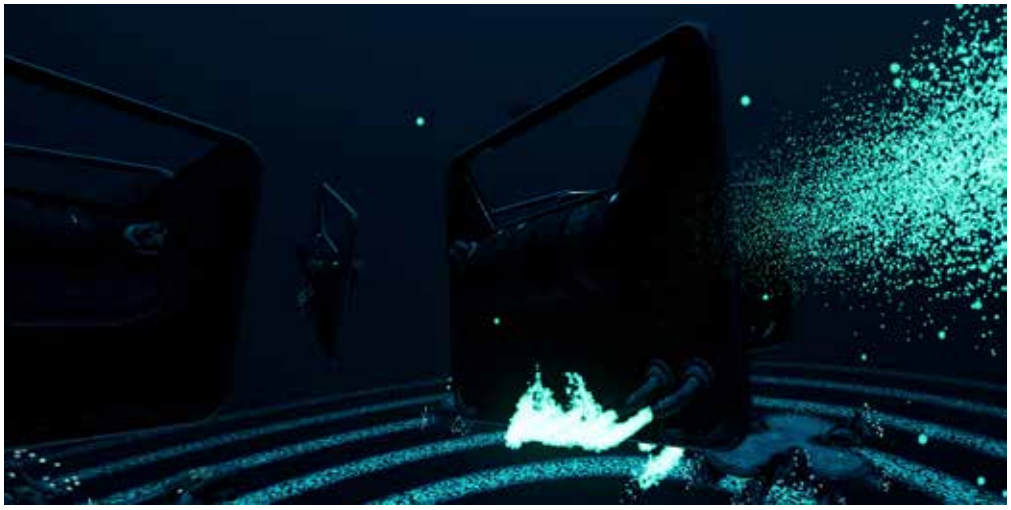
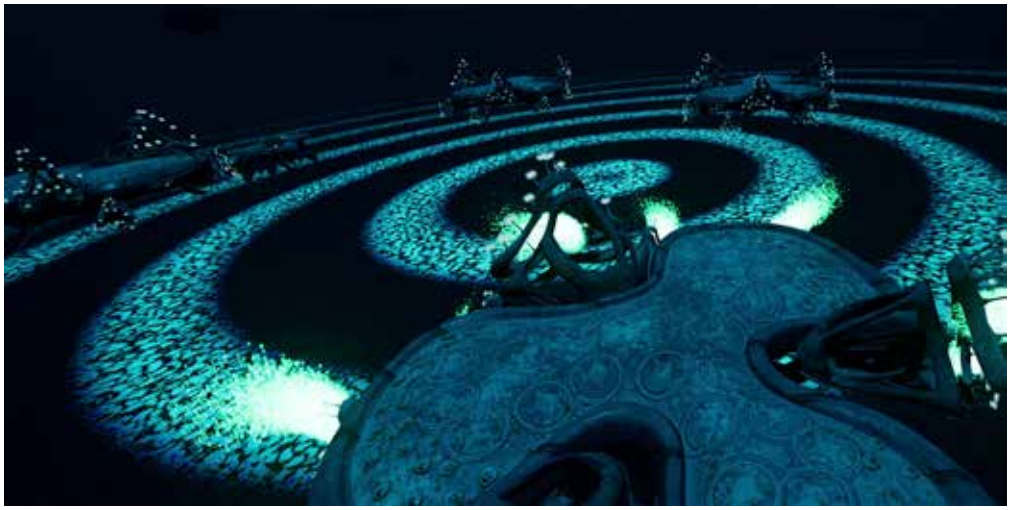
SENSES SWIRLING 2023-24





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VISUAL SENSORY CONVERGENCE 2021-22

VISUAL SENSORY CONVERGENCE

Visual Sensory Convergence asks a fundamental question: where do the boundaries of virtual reality truly exist? The project explores whether immersive technologies can produce genuine sensory experience, emotional engagement, and a sense of presence that extends beyond the headset.

The work expands a virtual reality experience outward through theatrical staging, puppetry, and physical interaction. What begins as a solitary digital encounter becomes a living environment where participants can touch responsive objects, hear reactive soundscapes, and engage with a world that feels inhabited and alive.

Currently in development, the project presents a virtual ecosystem populated by living entities. Each creature exists as a physical prop enhanced with VIVE tracking and live puppeteering, creating a hybrid system where digital and physical performance merge. Designed as a one-on-one experience, Visual Sensory Convergence encourages curiosity, experimentation, and imaginative exploration, transforming immersive technology into an intimate and participatory encounter.

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VISUAL SENSORY CONVERGENCE 2021-22

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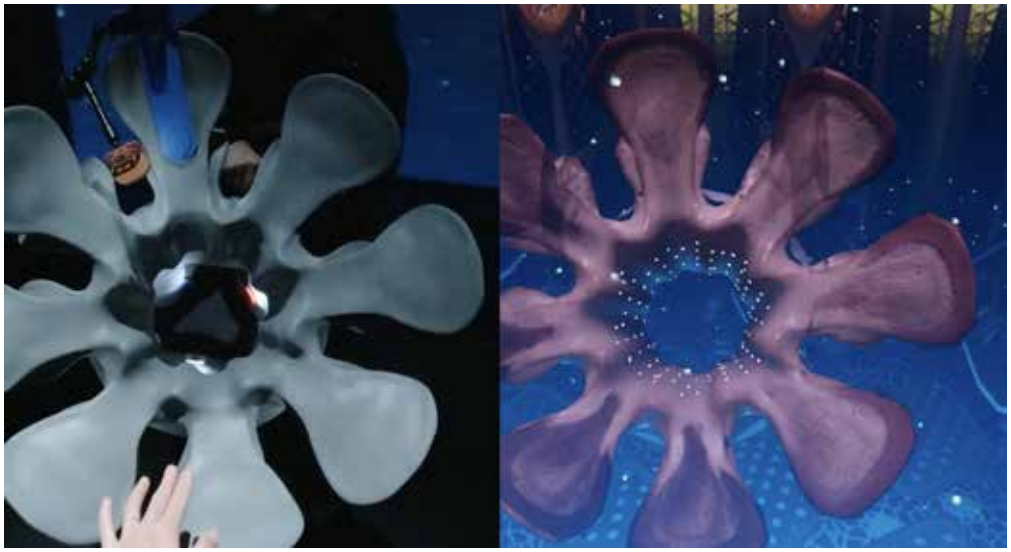
VISUAL SENSORY CONVERGENCE 2021-22



VISUAL SENSORY CONVERGENCE

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SELECTED EXHIBITIONS, PERFORMANCES, AND RESEARCH PROJECTS

2025
Drosera Obscura XR Performance in the ICAT Cube, Virginia Tech, Blacksburg, VA
Large scale immersive XR performance integrating animatronics, real time virtual environments, spatial audio, haptics, scent, and live vocal performance. Developed and presented in the ICAT Cube as an experimental performance environment exploring posthuman ecologies and human machine collaboration. The project combined Unreal Engine based virtual systems, Maya driven animatronics, spatialized sound, and live performers within a responsive multisensory ecosystem.
Director: Tucker, T.
Hardware and Systems: Choi, D.
Vocal Direction: Wyatt, A.
Industrial Design: Kennedy, B.
Sound and Narrative: Judson, T.
With faculty, student, and international collaborators.

2024
Drosera Obscura, SIGGRAPH 2024 Immersive Pavilion, ACM SIGGRAPH
Interactive XR installation exploring the evolutionary future of a carnivorous plant ecosystem in a post human world. The work integrates touch, scent, sound, and animatronics to examine how remnants of human industry become embedded within speculative biological systems.
Artists: Tucker, T. and Judson, T.

2023
Swirling Senses, SEAMUS Conference, New York University, Silver Building, New York City
Virtual reality demonstration and live performance.
Director: Tucker, T.
Co director: Judson, T.
Puppeteer and Manager: Kimbangu, R.

2023
Swirling Senses, Ars Electronica Who Owns the Truth, POSTCITY, Linz, Austria
Virtual reality performance and installation.
Director: Tucker, T.
Co director: Judson, T.
Puppeteer and Sound Engineer: Judson, T.

2022
The Senses Swirling VR Project, Ars Electronica Garden Aotearoa Art Technology and Society
Victoria University of Wellington, New Zealand
Virtual reality installation and performance.
Director: Tucker, T.
Co director: Judson, T.
https://www.ars.nz/exhibitions/

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2022
The Senses Swirling VR Project, FilmGate Interactive Film Festival, Art Basel Week, Miami, Florida
Interactive VR installation presented at the Downtown Financial Center.
Director: Tucker, T.
Co director: Judson, T.
Puppeteer and Manager: Kimbangu, R.

2021
Senses Swirling in Virtual Reality A Sensual Exploration, Ars Electronica
Virtual reality installation and performance.
Tucker, T., Judson, T., Franusich, D., Freeman, L., Bibel, J., Nguyen, P., Dee, M., Stiles, P., Upthegrove, T.
https://www.ars.nz/senses-swirling-in-virtual-reality-2/

2021
The Virtual Sensory Interfaces Project 2.0, ICAT Cube, Virginia Tech
Live research performance and exhibition.
Puppeteers: Hase, A., Tucker, T., Tucker, H., Weaver, R., Okumura, H., Winters, E., Dietz, T., Short, A., EDeisa, E.
Voice Direction: Wyatt, A.
Vocalists: Wright, M., Jagdhari, T., Phillips, K.
Sound Design: Judson, T., Upthegrove, T., Hale, B.
Technical and Production Support: Franusich, D., Schoenborn, E., Copper, C., Carberry, R., Williams, H., Wyers, M.
Three dimensional Printing: Bibel, J.
Catering: Boling, M., Garito Reighley, K.
December 17, 2021

2020
Visual Sensory Convergence, Ars Electronica
Online exhibition and research presentation.
Tucker, T., Judson, T., Franusich, D., Vitale, L., Monzel, D., Freeman, L., Ngo, H., Comstock, H., Kubalak, J., Bibel, J., Hamilton, J., Upthegrove, T., Hardebeck, G.
https://www.ars.nz/visual-sensory-convergence/

2020
The Virtual Sensory Interfaces Project, ICAT Cube, Virginia Tech
Research based XR performance and online presentation.
Tucker, T., Judson, T., Franusich, D., Monzel, D., Freeman, L., Ngo, H., Comstock, H., Kubalak, J., Bibel, J., Hamilton, J., Upthegrove, T., Hardebeck, G., Dee, M., Stiles, P., Hase, A., Okumura, H., Shokhov, H., Salisbury, A., Duff, C.
https://vimeo.com/506832409

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RESEARCH PARTNERS

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