VRITUAL AV

Tactile Micro interface
By Steve Gibson

VRitual AV performance at IKLECTIK London, Nov 2022. Photo by Jonathan Crabb.

PERFORMANCE DESCRIPTION

VRitual AV uses the Leap Motion 3D controller, as well as a multi-touch iPad interface to enable small-area gestural and touch control of audio-visuals. It uses as few technological resources as possible in a limited spatial area, while retaining the complexity of interaction required for an expert performance. VRitual AV enables the performer to move his hands and draw to perform and mix music, lights, and visuals in real-time with precision. VRitual AV blends live electronic music that is genuinely LIVE, with projection mapped visuals, uncanny audio-visual samples, and pulsing lights in order to create a hypnotic and emotionally-charged atmosphere for the audience.

VRitual AV diverges from much live audio-visual work in which the performer sits behind a desk and controls audio-visuals by interacting with a traditional computer interface. The computer itself is deliberately hidden and the interface is the contained within the gestural actions and movements of the performer's body. A key aim is to create a tactile micro interface that is easy to use and is easy to transport, thereby enabling more environmentally-friendly transmedia performance. The interface is also a solution for older body-based performers who may physically struggle with larger-area interaction. A secondary aim is to provide a model for gestural control of mixed media in a single form that is repeatable, but complex enough for genuine expert performance.

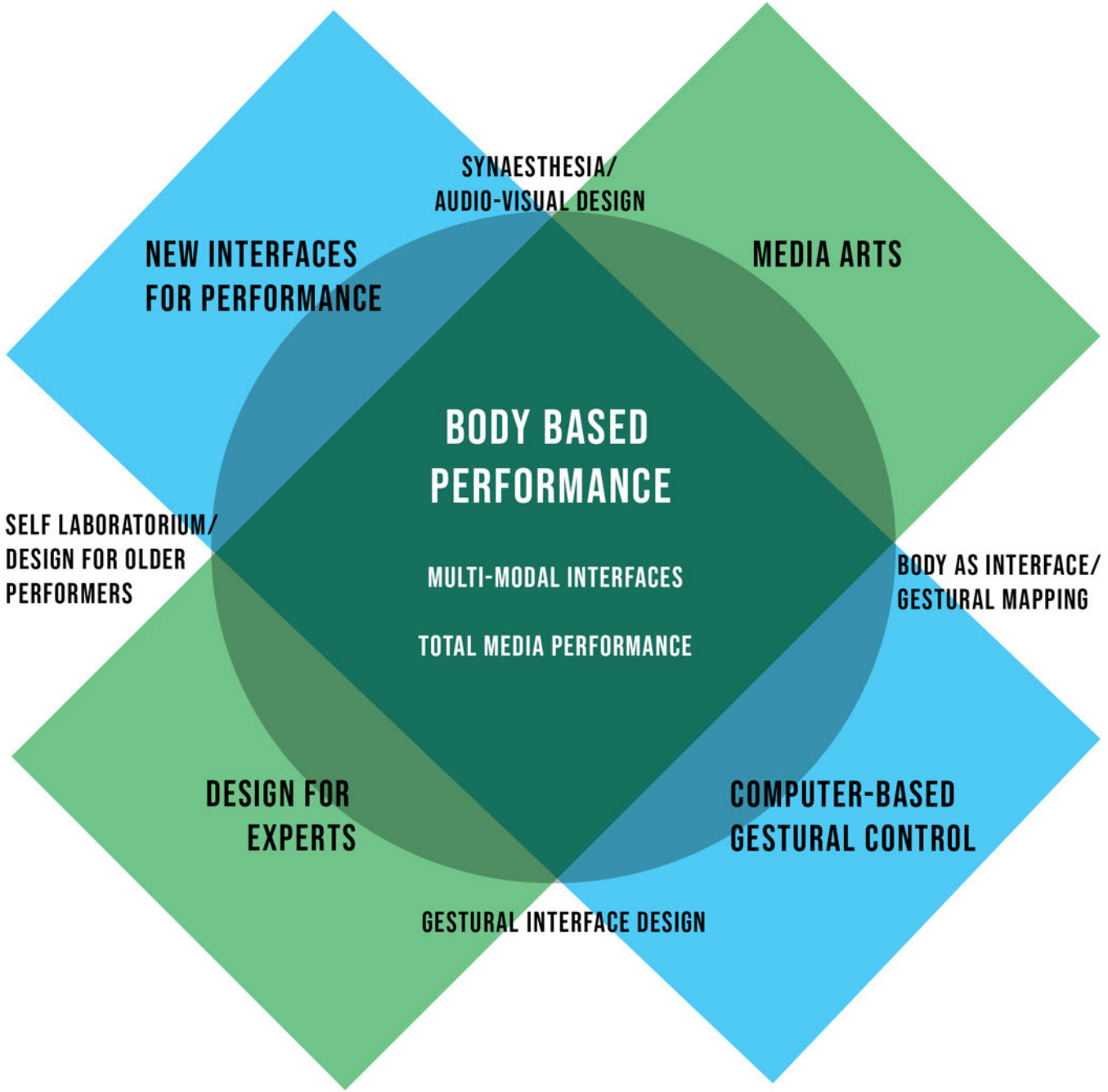
VRitual AV performance at ISEA2025 Seoul. Photo Credit Sarah Kim, Yong-Shin LEE. Courtesy of art center nabi

CONTEXT

VRitual AV is framed primarily within the context of body-based performance, but it is also informed by the design of new interfaces for performance, media arts in general, design for experts, gestural control systems, as well as my ongoing interest in synaesthesia as a source for audio-visual mapping. The piece is guided by the principle of establishing idiomatic uses for gestural and touch technologies to control as many simultaneous mediums as possible.

The piece also responds to the increasingly small scale of audio-visual interfaces and adapts its creative process to use these small interfaces to performance advantage for both the artist and the audience: since all viewing screens are hidden on stage, the only visible technologies are the performance devices. In the development of the piece, I have used myself as a self laboratorium, treating myself as an exemplar of an expert gestural performer. In VRitual AV I am stretched as a performer, employing complex and dramatic spatial control with deep awareness of the relationships between gesture, sound, visuals and light.

VRitual AV can be performed as part of a multiple performer event or as a solo show. It could reasonably be performed in the following types of venues: galleries, theatres, clubs, or music venues. Its duration can vary between 25 and 45 minutes.



VRITUAL AV SOUND & VISION

VRitual AV consists of four audio-visual sub-pieces in different styles. The sound of VRitual AV is deeply steeped in the history of electronic music, with influences from the Berlin-school of electronic music, 90s idm, and newer forms of experimental electronica. A crucial element of the sound of VRitual AV is the “liveness” aspect of the performance. The melodies are played in real-time, and the effects are manipulated according to the likes of the performer. Due to this liveness a tension is created, as the audience can see and hear the results of my gestural actions, and I am aware that errors are possible.

The visual world of VRitual AV is informed by my interest in synaesthesia. All visuals and lights have matching colours as well as matching effects related to the audio interactions. The visual element is produced within MadMapper, and apart from videos matched to the occasional vocal and film sound samples, I have deliberately used my variations on default Mad Mapper Materials. The LED lights are programmed in LightKey and are matched precisely with audio-visual effects. The visual world is primarily abstract, with the interest lying in how the dynamic control with the Leap Motion shows corresponding movement that is like that in the music.

VRITUAL AV PERFORMANCE HISTORY

May 25, 2025 - ISEA 2025, Seoul, Korea

March 7, 2025 - Particle+WAVE Festival, TELUS Spark, Calgary

April 5, 2024 - Performance at Sender, Zurich

Oct 14, 2023 - 404 Festival, National Arts Center, Mexico City

Aug 30, 2023 - Audio-Mostly 2023 Edinburgh (winner of Best Music Performance)

Nov 6, 2022 - Iklectik London, Live Visuals Book Launch Afterparty (Premiere)

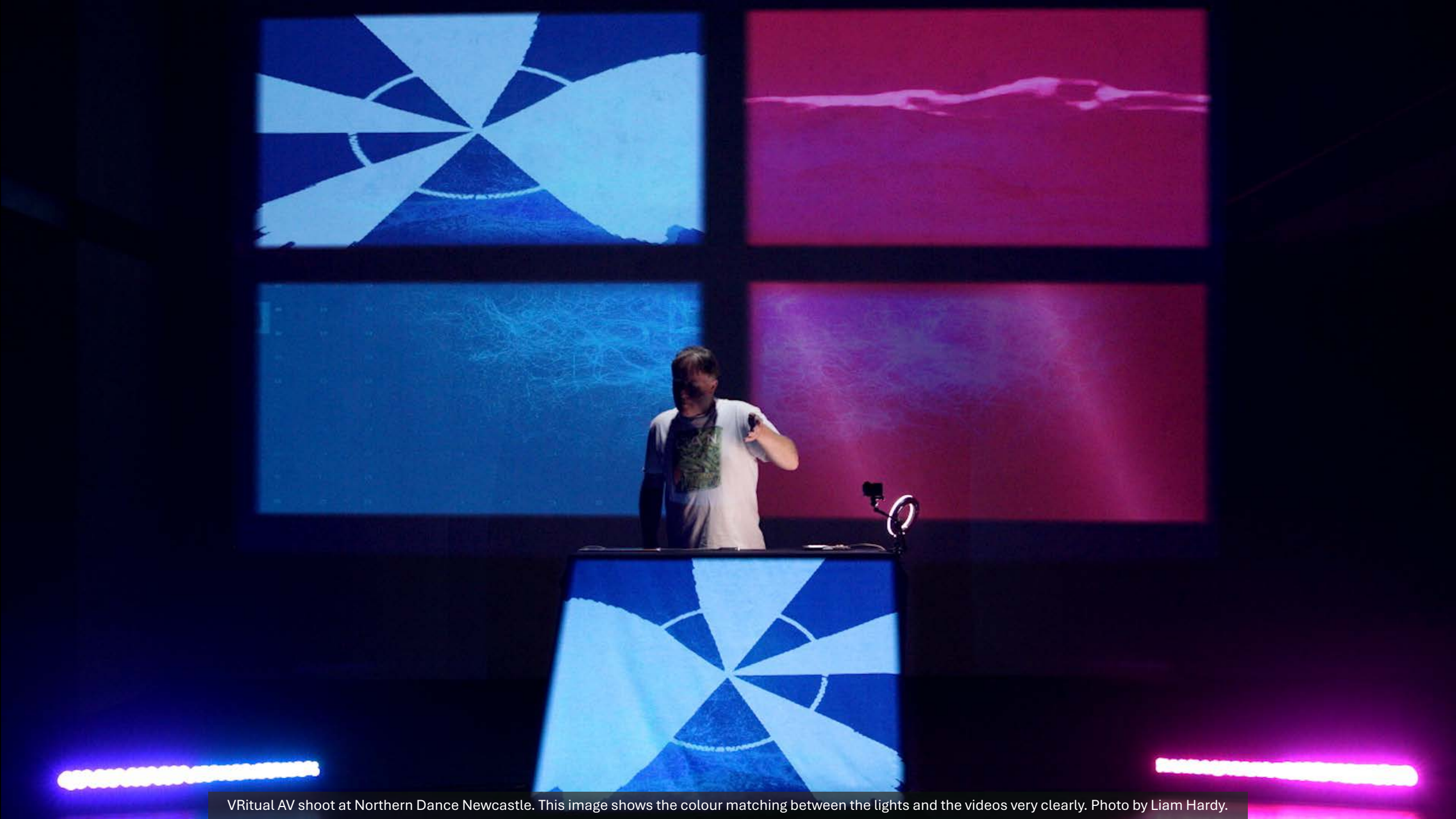
Aug 24, 2022; May 9, 2023; Sept 6, 2023 - Northern Dance Newcastle (Shoot Performances)

VRitual AV performance at ISEA2025 Seoul.
Photo Credit Sarah Kim, Yong-Shin LEE. Courtesy of art center nabi

SYNESTHETIC INTERFACES

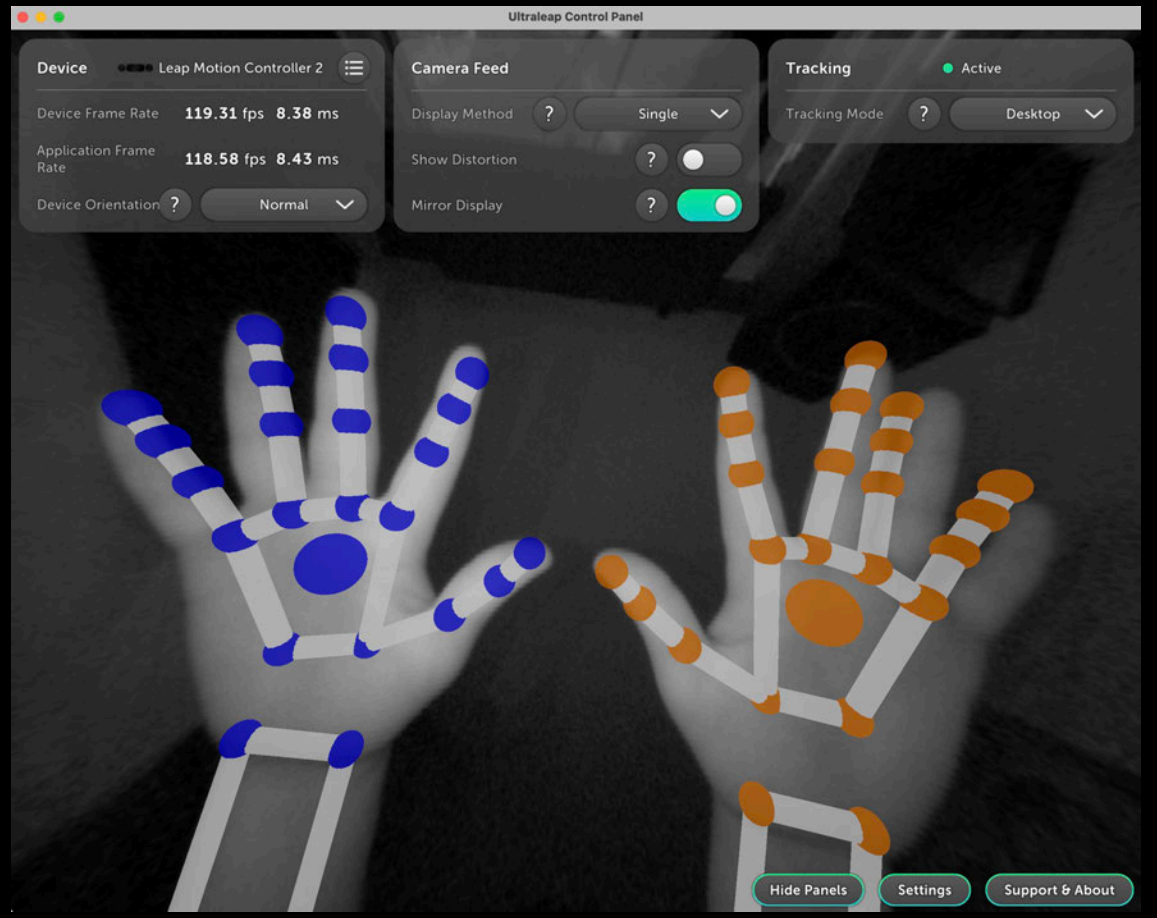
“VRitual AV builds on my previous work in synesthetic interfaces… In short, the gestural actions have matched audio and light response that are both repeatable and logical (i.e., hand height to music note and light hue), while at the same time the number of gestural interactions is substantive enough to make the interface complex enough for a genuinely satisfying performance by an expert performer. The deliberately introduced possibility of error via multiple related gestures and a lack of melodic quantization… creates a performance tension that enhances the liveness of the digital performance experience. In VRitual AV the performer can caress audio-visuals in real-time, creating a mixed-media experience out of thin air.” (Gibson, 2023, “Gestural interaction commonalities in body-based performance,” https://doi.org/10.1386/vcr_00062_1

VRitual AV shoot at Northern Dance Newcastle, with captions for gestural interactions, May 2023. Photos by Liam Hardy.



VRitual AV shoot at Northern Dance Newcastle. This image shows the colour matching between the lights and the videos very clearly. Photo by Liam Hardy.

Left: Steve Gibson performs in his home studio with Launchpad Mini, the Leap Motion and the iPad



Top: The three performance devices as seen through a chest-mounted GoPro camera
Bottom: The Leap Motion Camera View showing the position of my tracked hands

GESTURAL MAPPING OF THE LEAP MOTION IN GLOVER

The Glover software which allows mapping of Leap Motion hand position and gesture to MIDI commands which can then be programmed to audio, light and video effects.

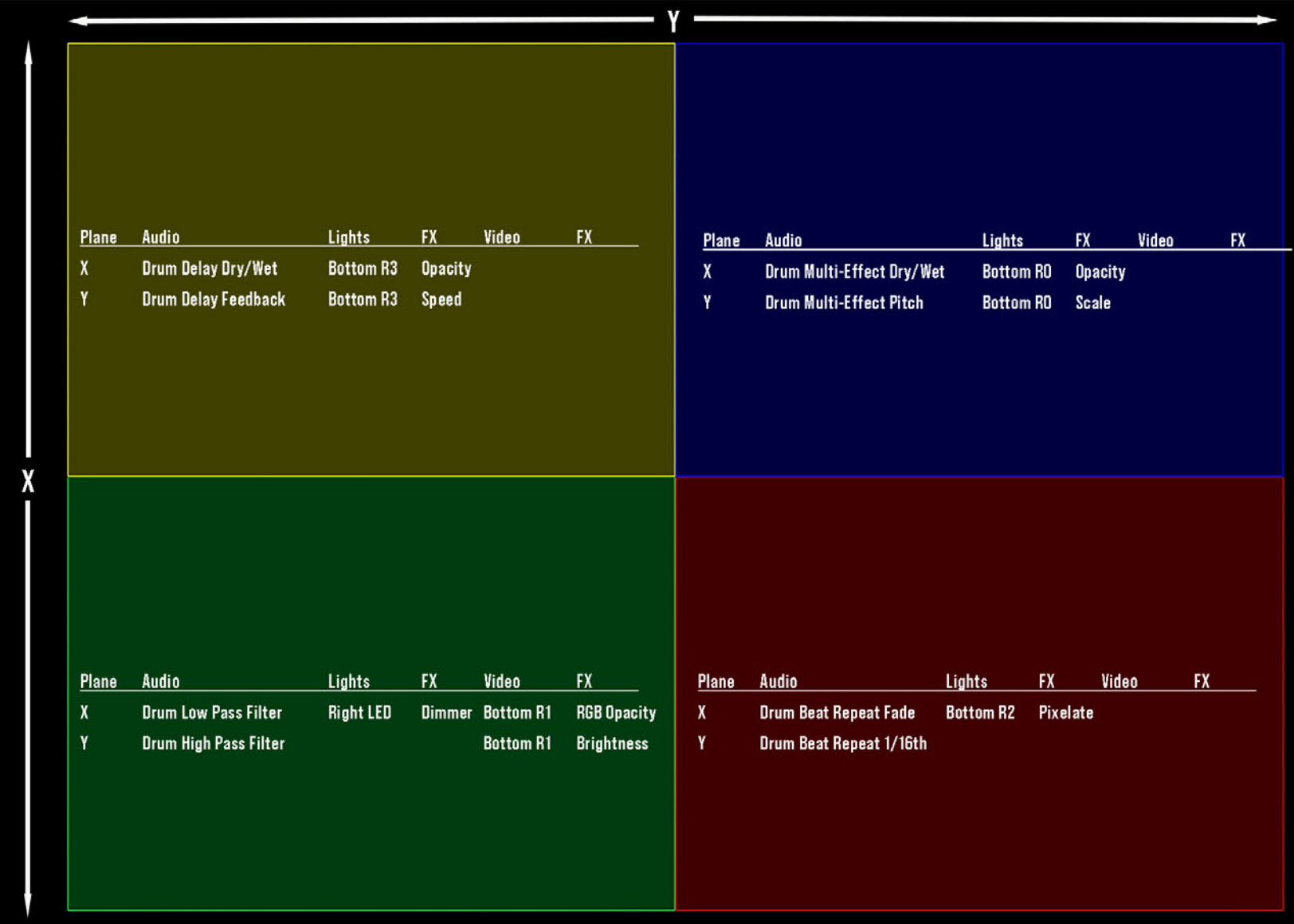
MULTI-TOUCH MIDI CONTROL IN TOUCHOSC

TOUCH OSC

IPAD PRO

MULTI-TOUCH INTERFACE

CONTROL SETUP



Plane	Audio	Lights	FX	Video	FX
X	Drum Delay Dry/Wet	Bottom R3	Opacity		
Y	Drum Delay Feedback	Bottom R3	Speed		

Plane	Audio	Lights	FX	Video	FX
X	Drum Multi-Effect Dry/Wet	Bottom R0	Opacity		
Y	Drum Multi-Effect Pitch	Bottom R0	Scale		

Plane	Audio	Lights	FX	Video	FX
X	Drum Low Pass Filter	Right LED	Dimmer	Bottom R1	RGB Opacity
Y	Drum High Pass Filter			Bottom R1	Brightness

Plane	Audio	Lights	FX	Video	FX
X	Drum Beat Repeat Fade	Bottom R2	Pixelate		
Y	Drum Beat Repeat 1/16th				

This table shows how multi-touch x-y hand movements on the iPad were mapped to Audio, Light and Video effects in one of the three sub-pieces of VRitual AV.

PERFORMANCE AND WEB LINKS

Short Video 01 demonstrates gestural control of bass, drums, arpeggios and a melody, as well as video and lights
https://vimeo.com/864459293

Short Video 02 shows complex control of audio, video and lights with gesture and touch
https://vimeo.com/942388672

Short Video 03 describes all gestural interactions on screen as they occur
https://vimeo.com/831244287

Project website
https://www.telebody.ws/VRitual-AV/VRitual-AV.html

Vimeo Showcase
https://vimeo.com/showcase/9966326

Soundcloud Set
https://soundcloud.com/steve-gibson-101/sets/vritual-av

Winner of Best Music Performance at AudioMostly Sept. 2023. Photo by Lucy Middleton.

TECHNICAL SPECIFICATIONS AND STAGING

Items Provided by the Artist

- Macbook Pro
- Sound/MIDI interface with balanced ¼” outputs
- Leap Motion 2, Launchpad mini and iPad Pro
- Two Stairville 240/8 RGB LED floodlights with DMX cables

Venue specifications

- The venue should have curtains or similar to block out any source of infrared light
- House (spot) lights are useful, but not 100% required
- A total of 3-4 m width and 2 m depth is required on stage.

Items Required by the Venue

- High-quality sound system (amp and speakers or self-powered speakers appropriate to the size of the venue) and balanced ¼” cables to connect to the system.
- 2 Projectors (1080p HD, one ceiling mount, one floor mount) and long HDMI cables. Note: if the venue only has one projector, I can bring a portable one along.
- Medium sized table (circa 1.5 m wide x 1 m deep) plus some means of hiding the laptop and interfaces under the table
- Black or grey fabric to cover the table

VRitual AV is very portable and easy to setup. It can be easily transported and requires no specialist technical help for setup. Setup Time: 2 hours. Strike time: 30 minutes

VRitual AV Video stills from Sender, Zurich, Apr 2024. Video shot by Marsellus Wallace, and images edited by Steve Gibson

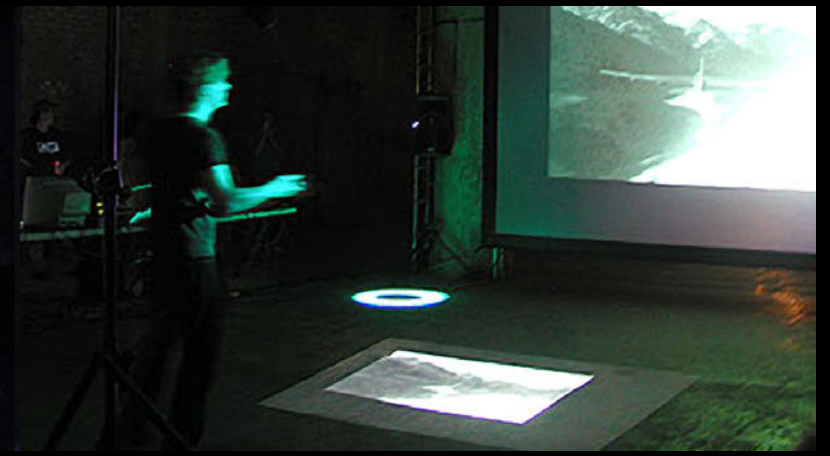
ARTIST BIOGRAPHY

S T E V E G I B S O N
interactive media artist, audio-visual performer, interface designer

Steve Gibson is an audio-visual performer and Associate Professor in Innovative Digital Media at Northumbria University, Newcastle. He works as lead-beta tester of the Gesture and Media System motion-tracking system and has produced several significant body-based pieces using this technology. His experimental electronic collaborative CDs include SPASM: The Sound of Virtual Reality and Hacking the Future. He has been involved in large-scale multi-screen audio-visual events, including several with Swiss VJ collective Scheinwerfer in Zurich, Vancouver, San Francisco, Chicago, Shanghai and Singapore. He also performs as a body-based performer using motion tracking and gestural interfaces to control sound, lights, and video by movement in 3D space and has exhibited these projects in London, Mexico City, Zurich, Stockholm and Vancouver. Over the course of his 25-year career he has presented at many world-leading venues including Ars Electronica, 404 Festival Mexico City, Banff Centre for the Arts, Digital Art Weeks (Zurich, Shanghai, Xi'an, Singapore), the European Media Arts Festival, the National Museum of Scotland and Cabaret Voltaire Zurich. His co-authored book Live Visuals: History, Theory, Practice was published by Routledge in 2022.

Personal Website: http://www.telebody.ws
Vimeo: https://vimeo.com/room101studio
Soundcloud: https://soundcloud.com/steve-gibson-101





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VRitual AV at the 404 Festival, National Arts Center, Mexico City, Oct. 2023. Photos by Jean-Philippe Côté.

VRitual AV at Sender, Zurich, Apr 2024. Photo by Stefan Arisona.

VRitual AV shoot at Northern Dance Newcastle, Apr 2024. Photos by Liam Hardy.

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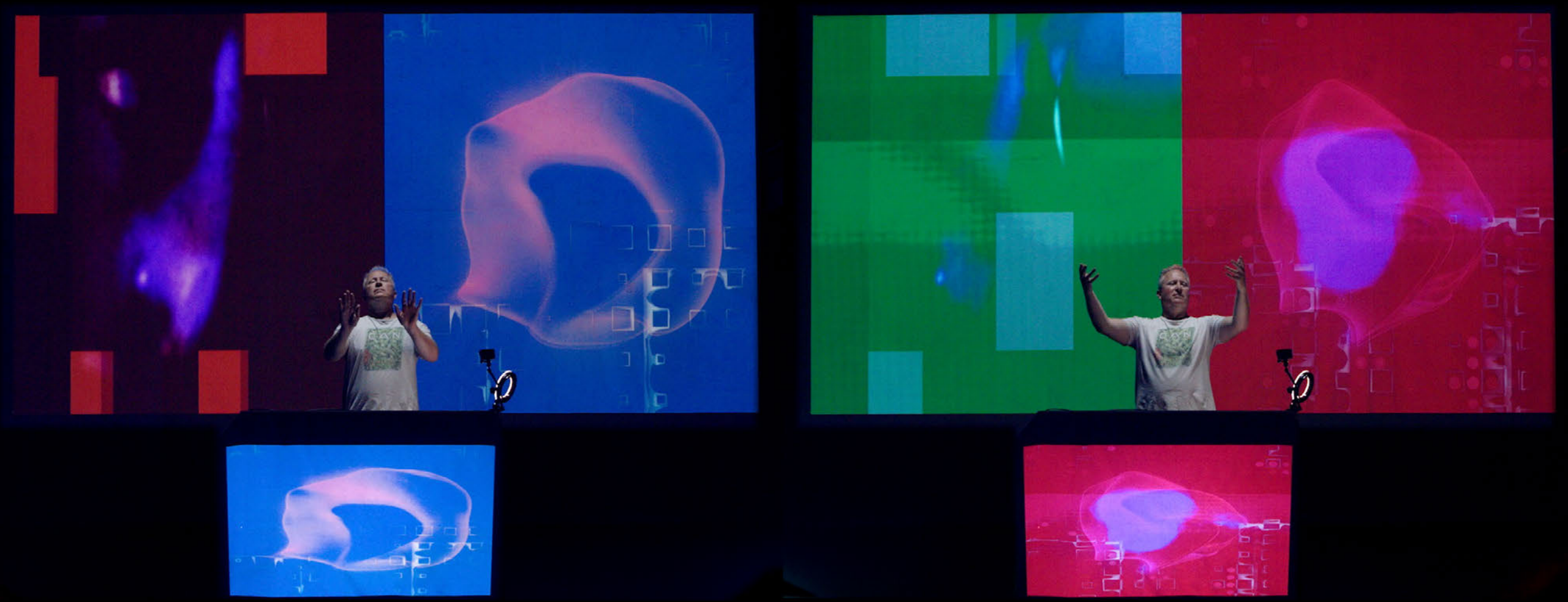

VRitual AV shoot at Northern Dance Newcastle, Aug 2024. Photos by Liam Hardy.


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