

Lee  
Wilkins.

# Portfolio

**Maker.**  
**Cyborg.**  
Technologist.  
*Community Builder.*

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## Making

Digital Fabrication, Laser Cutting, 3D Printing, 3D Design, Wood Shop Fabrication, Water jet cutting, sewing, E-textiles, CNC machining, Electronics, Arduino, ESP32, Lighting Design, experimental fabrication, rapid prototyping, origami, digital illustration

## Software & Code

Photoshop, Illustrator, Arduino, Unity, Javascript, C++, Web programming, Fritzing, OSC, DMX, Microsoft Office, Powerpoint, Keynote,

## Leadership

Team coordination, rapid prototyping, ideation and consulting, project iteration, community leadership,

## Selected Clients

Concordia University, Milieux Institute, Toronto Design Exchange, Make Fashion, Maker Festival Toronto, University of Toronto, Toronto Catholic District School Board, Festival of Curiosity, SAT (Société des Arts Technologiques), Lumière Festival, Toronto Metropolitan University, Ontario College of Art and Design, Toronto Tool Library, Autodesk, Informal.cc, Make Magazine, Scope of Work, Defcon Biohacking Village, Hackaday, Interior Design Show, The Maker Bean Cafe, VideoPool, School of Machines, Making and Make Believe, Supplyframe Hardware, Alpenglow Electronics, Inter/Access, Site 3 Co laboratory, Nuit Blanche, Open Source Hardware Association.

# Android Aparatus

Role: Artist & Fabricator

Video: <https://vimeo.com/249318484>

Android Apparatus is a performing wearable piece that responds to the wearers dance moves, suspended on a lyra hoop. The designs on the garment are generated by sensor data logged from the performer's dance.

Collaboration with Hillary Predko





# Void

**Role: Artist & Fabricator**

**Video: <https://vimeo.com/754806508>**

Void is an interactive installation that utilizes light to create an illusion of mirror or window. Each participant is inside a piece that is either mirror or window, with their counterpart the opposite. When one can only see themselves, others can see in to explore the tension between viewer and sense of self.



Exploring non visual and alternative sensory interfaces for virtual reality using haptics rather than visual inputs.

This project is driven by a world that is increasingly visual and decreasingly tactile. Digital interfaces are moving towards less physical input, and virtual spaces even remove tactile senses through adding controllers. What does this mean for people who's primary interface with the world isn't visual? Further, what does it mean for people with varying abilities to explore the same space.

FishtankFeels features a collaborative element, allowing a sighted and not sighted participant to use their sensory experiences to explore together. Both players use prosthetics to navigate a virtual space together, and both are limited in the senses they are able to use. One player holds a screen for the sighted player

to view. They are able to physically navigate the space holding the peripheral, but aren't able to see what is on the screen. Instead, they feel the environment haptically as they move. The visual element uses a Open CV camera to track a viewer's gaze within a simulated virtual environment. Therefore, both players must communicate what they sense about the space in order to successfully navigate it.

The goal of this interaction is to place both methods of viewing the virtual space as essential, rich and useful. In typical virtual spaces, tactile interfaces are only supplementary, and all information can be gained through visual inputs. In this interaction, its only through both engagements that the space can be explored.

Intentionally this is not a piece about accessibility, but rather an exploitative

prompt that lets people explore the world on equal footing. For example, visually an element might appear to be 2 squares, but tactically they have unique properties.

The name FishtankFeels comes from the viewing mechanism that uses a technique called "fishtanks VR", this allows the viewer to looking the screen as a portal. Their face location in relation to the camera is tracked so that the screen appears to be a "fish tank" effect. By holding the screen and being responsible for the sighted persons' perspective, the two players are forced into a collaborative sensing experience.

# Fishtank Feels

Role: Artist & Fabricator



# Collaborative Sensor

Role: Artist & Fabricator

The sensor can pick up ultrasonic bat sounds, however the two wearers must work collaboratively. One person can only move the sensor, and the other can only hear through a bone conducting transducer. They must hold hands and communicate as they move through the jungle listening to bats.



# Festival Of Curiosity

Role: Technical Director

This collection was designed by artists at the Festival of Curiosity fashiontech show. Lee Wilkins was technical director and fabricator of the electrical components and soft circuits.



# Greenhouse Reflect

Role:

Artist & Fabricator

Video: <https://vimeo.com/944203244>

Greenhouse Reflect prompts contemplation on the rhythms of the seasons, fostering a deepened appreciation for the cycle of the natural (and built) world. Visitors are encouraged to return at different times of day to experience its transformation.

Collaboration with Hillary Predko, Daemon Baliski, Kyle Chisholm for Ontario Place Lumiere exhibition.



# Space Suit

Role: Artist & Fabricator

“Space Suit” is an interactive wearable that uses heat-sensitive inks to draw the wearer closer to Outer Space. The suit changes color when the International Space Station is overhead by using resistive inks to generate heat, and an Internet connected microcontroller to detect the ISS.

Collaboration with Hillary Predko



# Fiddlehex

**Role: Artist & Fabricator**

Fiddlehex is an interactive installation for the Lumiere Festival at Trillium Park. The sculpture reacts to people approaching it through changes in light and color and is based on Fiddleheads, a common Ontario fern.

Collaboration with Hillary Predko, Daemon Retren, Dave Cox, Kyle Chisholm, Sagan Yee, Alex Leitch



# Big Ouija

**Role: Artist & Fabricator**

Big Ouija is a giant, interactive web connected installation. It is controlled by Adafruit.io and can spell out any message you want! This installation lives at the Arcana Spirit bar and was custom fabricated to meet their needs.

Collaboration with Kyle Chisholm, on display at Arcana Bar in Vancouver, BC.



# Electronics Zines

Role: Artist / technical writer

These zines are meant to fill weird gaps in understanding about the most simple components, LEDs, Wires, and buttons! They are technical manuals as well as prompts to explore technology in new ways.

Collaboration with [Dushan Milic](#) (Layout designer)



## RE:Familiar

Role: Artist & Fabricator

Video: <https://vimeo.com/224333305>

RE:Familiar is a drone based fashion garment for Make Fashion. The dress is made out of Ethernet cable, computer fans, and silk. A drone follows the wearer down the runway and holds their dress.

Collaboration with Hillary Predko



**L4**  
SOCIETY



*Exploring  
the tension  
between our  
world and  
the vastness  
of space*



## L4 Society

**Role: Artist / Curator**

L4 Society is a speculative zine that features work from a variety of creators on the subject of feminist explorations in outer space. The work is a critical answer to the 1970s Space Utopia movement, presenting an alternative to contemporary outer space perspectives. The 30 page zine was printed on Risograph and distributed.

Collaboration with Sagan Yee, Hillary Predko



# LOL Memory

**Role: Artist & Fabricator**

**Video: <https://vimeo.com/manage/videos/243034370>**

Little Old Lady Memory was an interactive installation for the EDIT festival with the Design Exchange in Toronto. This installation featured thousands of punch cards and light-transmitted audio that allowed viewers to hear the stories of women in the space industry. The installation is made out of thousands of punch-cards, similar to those used by women programmers in the 1960s, and uses light-transmission to play audio recordings of their biographies.

**Collaboration with Little Dada (Hillary Predko and team)**



# Skylab Revolution

Role: Artist, Fabricator

Skylab Revolution is a series of projects that engage with a theoretical space station. Participants are invited to revisit the original Skylab missions, and contemplate notions of labor in space through a series of workshops and interactive installations

[Collaboration with Hillary Predko and Hand Eye Society](#)



# Earth Resist

Role: Artist,  
programmer

<https://www.drivethrufunco.com/artists>

Earth Resist was an installation for Ontario Winter Lights exhibit at Ontario Place. This outdoor installation featured DMX lights that responded to weather data next to Lake Ontario.

Collaboration with [Ryan Longo](#) and [Shan Horonez](#)

**Thank you** for  
your time and  
consideration.

**LeeWilkins.**<sup>MFA</sup>

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