

JAZZY LEELO

[b. 2001, Lekwungen Territory, Canada]

1. Queen's University BScH Thesis: A Reflexive Analysis of Community-Based Participatory Research with Indigenous Communities in Relation to my Positionality
2. Kinex (UAL x Össur): Developing User Autonomy in Lower-Limb Amputees through a Wearable Gait Biomechanics Tracking System
3. Permacomputing Maternal Devices: Challenging Heteronormative, Western Notions of Motherhood and Nourishment through Transdisciplinary Speculative Designs

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A Reflexive Analysis of Community-Based Participatory Research with Indigenous Communities in Relation to my Positionality 2023

Core activities: (1) a literature review on the Effectiveness of Community-Based Participatory Research Involving Indigenous Peoples, (2) working with the Weeneebayko Area Health Authority (WAHA) to collect attitudes around COVID-19 in the Moose Cree Nation, (3) assisting Kahnawake Schools Diabetes Prevention Program (KSDPP) in the website and social media management, and (4) performing a scoping review analysing Public Health Preparedness and Response Strategies During Viral Respiratory Pandemics/Epidemics for Indigenous Communities in CANZUS Nations.

Read Here: BSc Honours Thesis
Password: helloFAE!

Role: Student Researcher

Collaborators:

Dr Lucie Lévesque, Brittany McBeath, Dr Elizabeth Brule, Dr Karen Yeates, Trinity Vey

Kahnawake School Diabetes Prevention Program (KSDPP), Weeneebayko Area Health Authority (WAHA), Moose Cree Nation, Queen's University, McGill University

With funding support from Canadian Institutes of Health Research (CIHR) and Queen's University Arts and Science Undergraduate Research Fund (ASURF)



BACKGROUND

The definition of “research” is deeply rooted in European imperialism and colonialism (Smith, 2012). Research *on* Indigenous communities, in particular, has traditionally involved a dominant Western researcher, who acts as the knowledge holder, and an Indigenous community of passive subjects (Koster, Baccar, & Lemelin, 2012). To decolonize research, how can we cultivate a collaborative process that encompasses values from *both* Western and Indigenous cultures to come to a mutual understanding?

Community-based participatory research (CBPR) is a research approach in which decision-making power and ownership is shared between researchers and the partner community. It promotes bi-directional research capacity and co-learning opportunities through following five tenets: respect, relevance, reciprocity, responsibility, (Kirkness & Barnhardt, 2001), and relationships (Harris & Wasilewski, 2004; Restoule, 2008; Styres & Zinga, 2013). In essence, the goal of CBPR is to “shift away from working *on* Indigenous communities and rather work *with* and *for* them” (Koster, Baccar, & Lemelin, 2012).



PURPOSE

To explore my positionality in relation to practicing the 5 Rs within the context of community-based participatory research with two First Nations communities

Phase I: Brainstorming

Facilitating talking circles to gather ideas equitably and synthesise them into a concise list of unique themes.

20-30 participants

Phase II: Unstructured Sorting and Rating

Participants collaboratively categorise the synthesised statements by meaning and rate them by priority level to identify interrelationships of ideas.

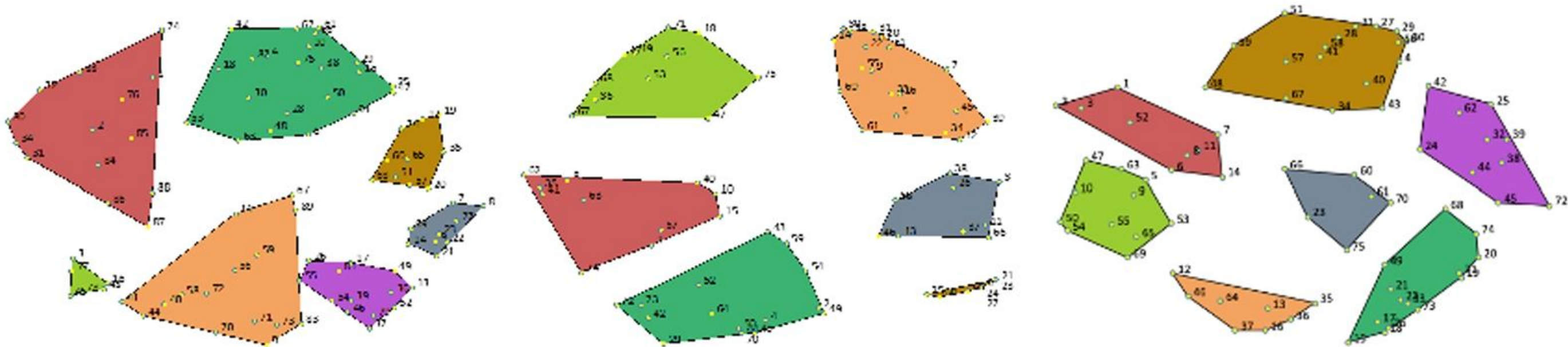
10-15 participants

Phase III: Interpretation Sessions

Follow-up sessions allow participants to review the concept mapping results from GroupWisdom software analysis to drive community-led analysis and collaborative action.

70-78 participants

Figure 1. Images of cluster maps used during each community interpretation session.



McBeath, B., Franks, O., Delormier, T., Périllat-Amédée, S., McComber, A., Abigosis, T., Leafe, D., Macaulay, A., & Lévesque, L. (2021). Reflecting on the use of Concept Mapping as a Method for Community-Led Analysis of Talking Circles. *Turtle Island Journal of Indigenous Health*, 1(2). <https://doi.org/10.33137/tijih.v1i2.36171>

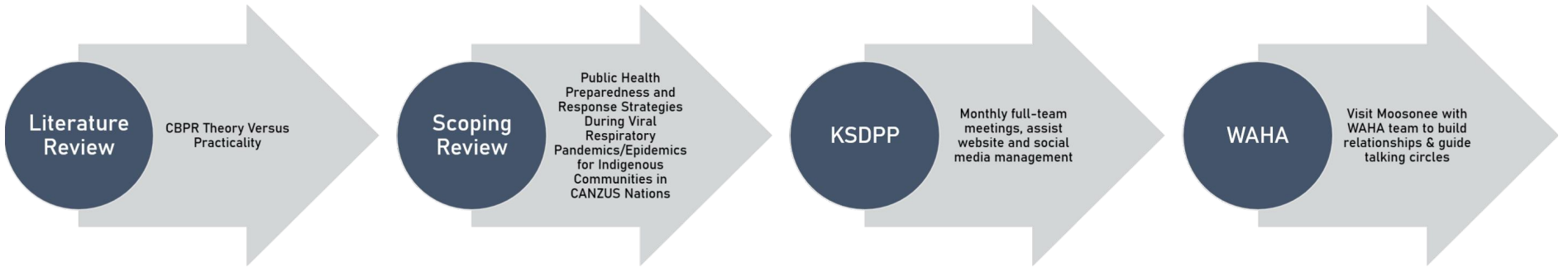


METHODS

Who AM I?

I am a settler currently living, working, and playing on Anishinaabe and Haudenosaunee lands. I was raised on the unceded territories of the Lekwungen-speaking peoples, primarily growing up on the lands of the Songhees, Esquimalt, and W̱SÁNEĆ nations. Both my parents are second-generation Canadians, born to immigrants fleeing racial violence. My father’s family is ethnically Hakka and mixed South Asian descent; they lived in South Africa before fleeing Apartheid in the late 1960’s. After settling on Lheidli T’enneh First Nation land, my father and his brother attended a local residential day-school. On the other side of my family, my mother’s father immigrated from Hong Kong to evade the Japanese invasion during World War II and her mother is of mixed European descent. Both my parents obtained medical degrees, and raised a family with strong values in education, career, and relationships.

Learning Exposure



Reflexive Analysis

My involvement in the learning exposure activities has provided an opportunity for me to critically analyze my positionality through the lens of the five R’s: how I uphold the ideals of relationship, respect, relevance, reciprocity, and responsibility through CBPR. My analysis highlights how my individual background influences how I uphold my responsibility to decolonize research as a non-Indigenous student.

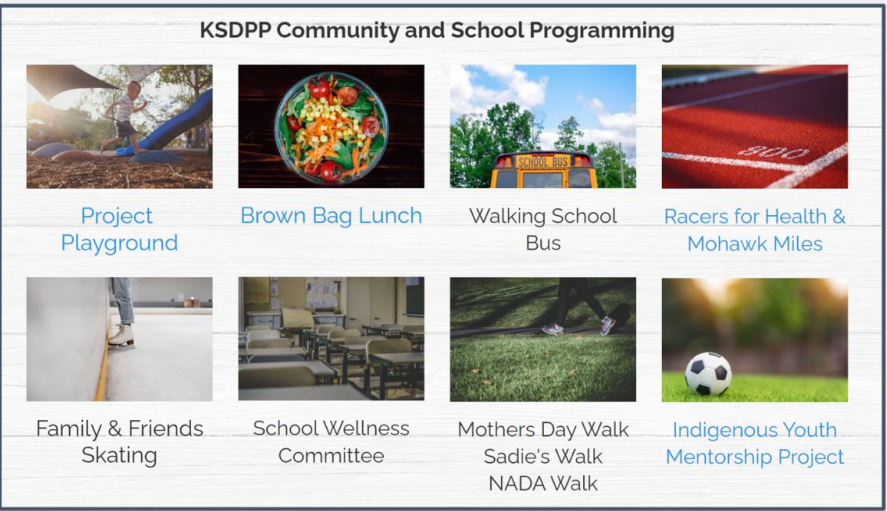
RESULTS

Relationships	Respect	Relevance	Reciprocity	Responsibility
To collaborate and build trust with Indigenous people	To honour Indigenous peoples & their views of the world	To address the goals of Indigenous communities	To respectfully exchange ideas for mutual benefit.	To work with and for Indigenous people
▪ I entered this project with less connection to the lands and people of the communities I worked with. I drew from my understanding of Indigenous cultures from the Coast Salish peoples ▪ COVID-19 has added barriers to communication, but because my age group relies so heavily on digital platforms, this way of connecting is accessible and natural to me	▪ To express respect in culturally relevant forms, I spend much of my time listening. For example, in gatherings, my team follows traditional practices of welcoming and thanks, which is spoken in Mohawk ▪ My family’s culture is a minority in Canada, so I can relate to the white-washing experienced by Indigenous peoples, yet this does not speak to the extent of violence Indigenous people face. Therefore, I respect the enduring effort to resist colonization	▪ I grew up in an active household where diabetes was not a risk. Learning more and sharing information on diabetes prevention is therefore important to the current health disparities faced by Indigenous peoples ▪ COVID-19 affected Indigenous communities to a greater extent than my personal experience. My research into COVID-19 preparedness and response strategies is applicable to planning for future pandemics / epidemics	▪ From my family history of immigration, my family has viewed Canada as a place of safety and refuge – contrasting from the Indigenous experience. I adopt a selfless focus to give back to my Indigenous teachers, who endured and continue to endure generational trauma ▪ Research findings will benefit future preparedness / response strategies for Indigenous communities	▪ I am responsible for unlearning colonial epistemologies I was raised with (the ideas I learned from the public school system, my setter circles, and media) that hinder my ability ▪ I seek to relearn concepts from an Indigenous lens - I collaborate with Indigenous communities to identify themes within data, seek feedback, and plan events

PARTNER COMMUNITIES

KSDPP

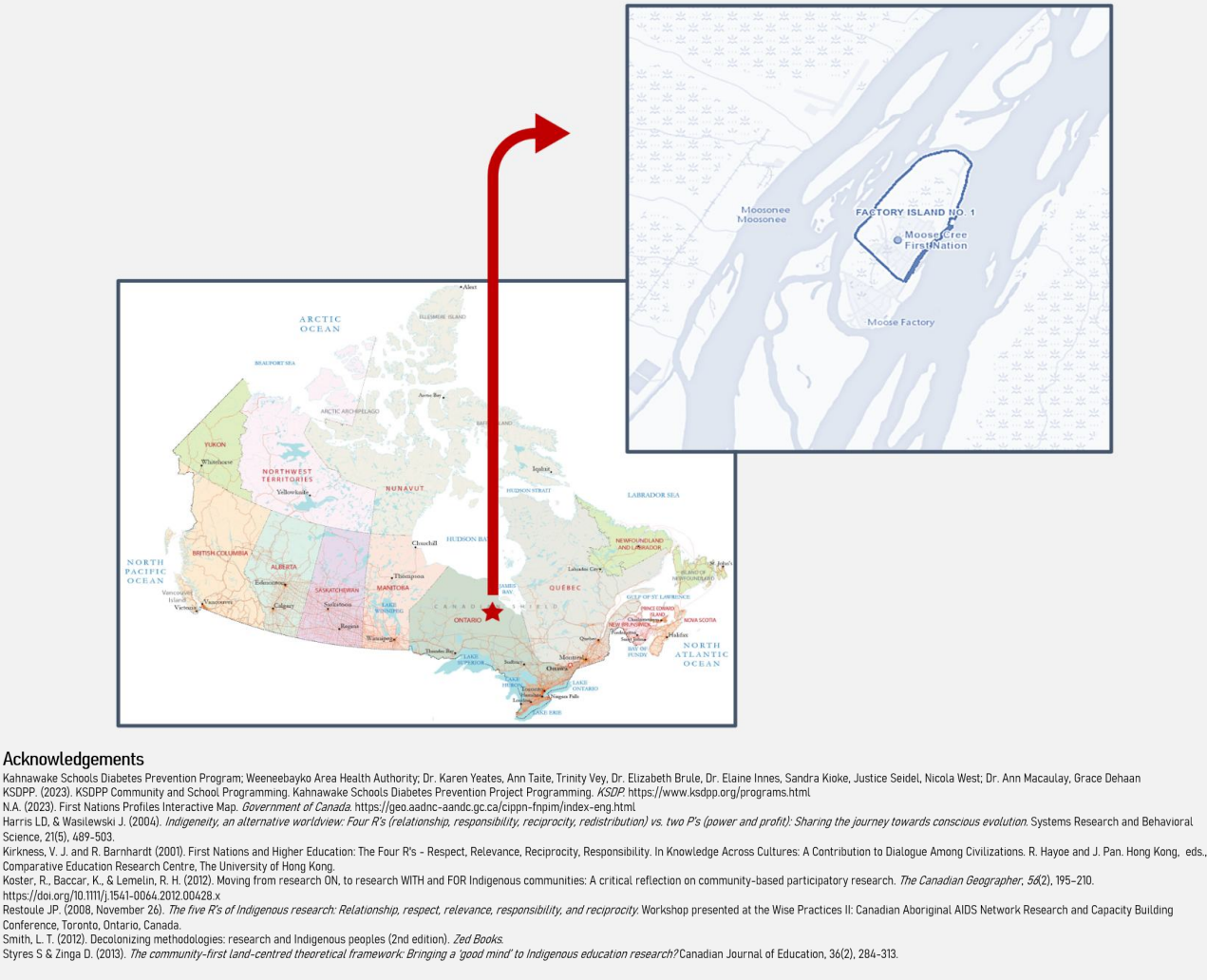
The Kahnawake Schools Diabetes Prevention Program (KSDPP) is a team of community members, university researchers, students, trainees, and staff that work in collaboration with community organizations to promote healthy lifestyles. Members share a vision of diabetes prevention through community empowerment and research activities that reflect Kanien’keha:ka values.



WAHA

The Weeneebayko Area Health Authority (WAHA) is a healthcare provider affiliated with Queen’s University located along the western James Bay coast. The organization serves Moose Factory, Fort Albany, Attawapiskat, and Moosonee with a physician team, students, and community stakeholders.

In collaboration with masters’ students, Queen’s University professors, and members of WAHA, I assisted in collecting data on Indigenous experiences with COVID-19 and attitudes around COVID-19 health measures.



Acknowledgements
Kahnawake Schools Diabetes Prevention Program; Weeneebayko Area Health Authority; Dr. Karen Yeates, Ann Tate, Trinity Vay, Dr. Elizabeth Brule, Dr. Elaine Innes, Sandra Koike, Justice Seidel, Nicola West; Dr. Ann Macaulay, Grace Dehaan
KSDPP (2023). KSDPP Community and School Programming. Kahnawake Schools Diabetes Prevention Program. KSDPP <https://www.ksdpp.org/programs.html>
N.A. (2023). First Nations Profiles Interactive Map. Government of Canada. <https://geo.adnc-aandc.gc.ca/cipn-ngpin/index-eng.html>
Harris LD, & Wasieleski J. (2004). *Indigenity, an alternative worldview: Four R's (relationship, responsibility, reciprocity, redistribution) vs. two P's (power and profit): Sharing the journey towards conscious evolution*. Systems Research and Behavioral Science, 21(5), 489-503.
Kirkness, V. J. and R. Barnhardt (2001). First Nations and Higher Education: The Four R's – Respect, Relevance, Reciprocity, Responsibility. In Knowledge Across Cultures: A Contribution to Dialogue Among Civilizations. R. Hayoe and J. Pan. Hong Kong, eds. Comparative Education Research Centre, The University of Hong Kong.
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Rediske JP. (2018, November 26). *The five R's of Indigenous research: Relationship, respect, relevance, responsibility, and reciprocity*. Workshop presented at the Wise Practices II: Canadian Aboriginal AIDS Network Research and Capacity Building Conference, Toronto, Ontario, Canada.
Smith, L. L. (2012). Decolonizing methodologies: research and Indigenous peoples (2nd edition). *2nd Books*.
Stynes S & Zinga D. (2013). *The community-first and-centred theoretical framework: Bringing a good mind to Indigenous education research* Canadian Journal of Education, 36(2), 284-313.

**Developing User Autonomy in Lower-Limb Amputees
through a Wearable Gait Biomechanics Tracking System
2025**

KINEX applies a mixed methods research framework to develop wearable biomechanical analysis systems. Qualitative community insights direct the iterative physical prototyping of parametric textile enclosures, refining means for continuous mechanical coupling of electromyography (EMG) and inertial measurement (IMU) sensors. By validating raw hardware outputs against an OpenSim digital twin, the project establishes accessible architectures for personalised remote rehabilitation, centring user autonomy, accessibility, and inclusivity of care.



Link: [KINEX](#) / [GitHub Repository](#)
Password: helloFAE!

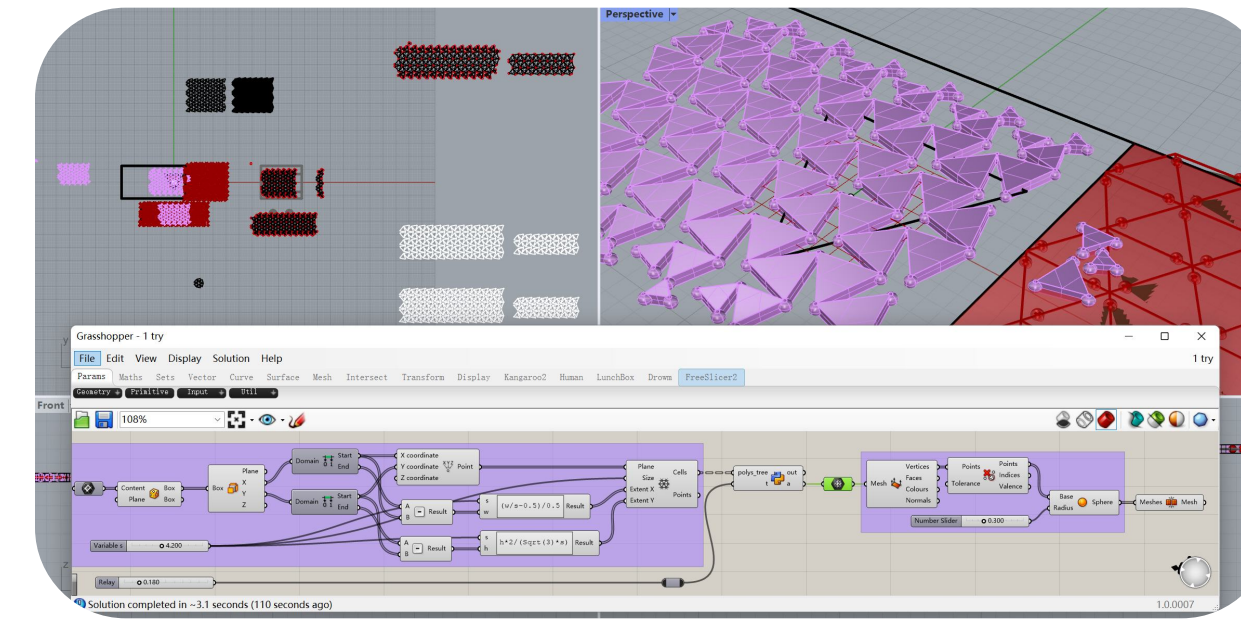
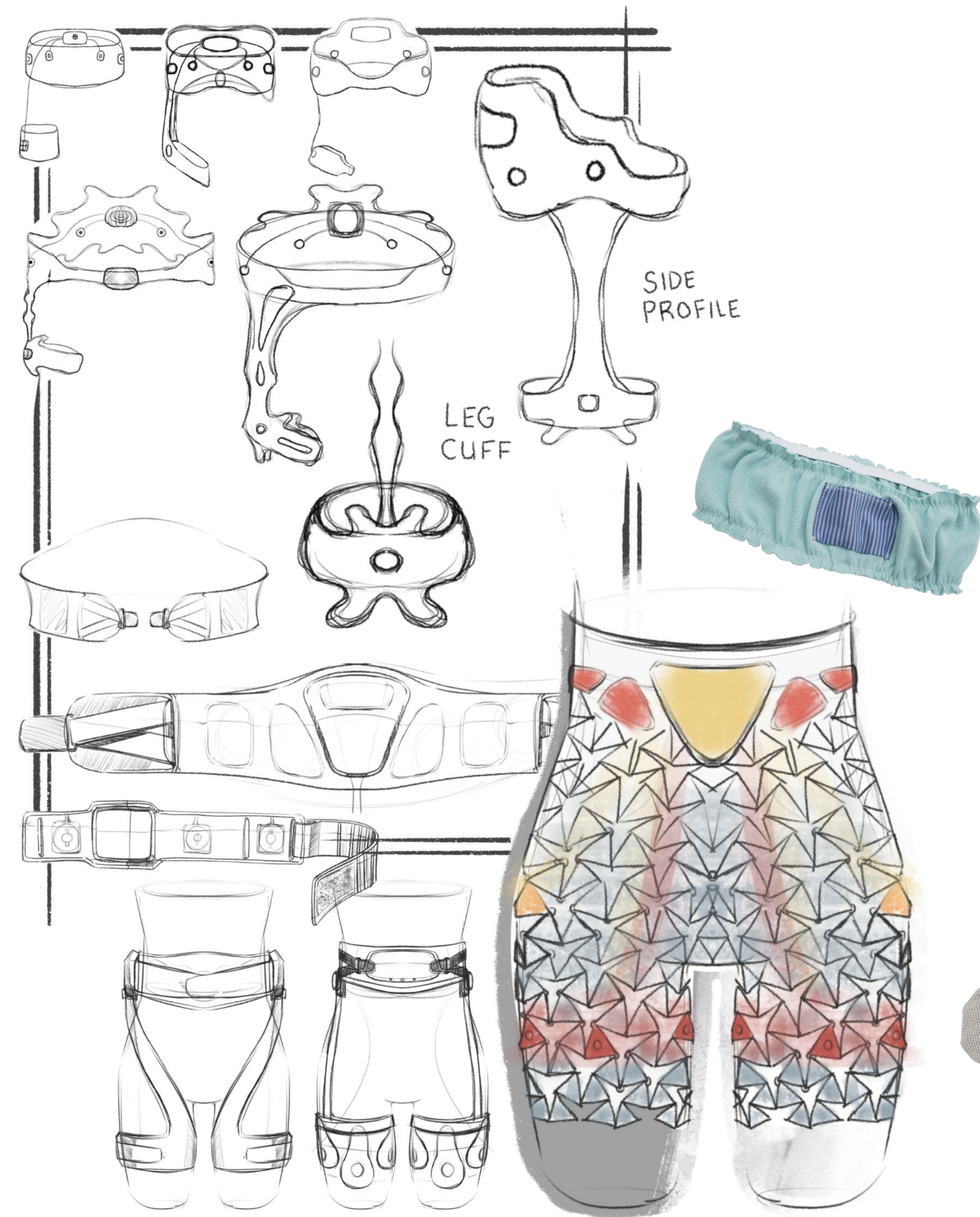
Role: Creative Technologist

Collaborators:
Chen Yang, Leslie Liu

Central Saint Martins, University of the Arts London, Össur

Special Thank You to...
Marissa Papaconstantinou (Canadian Paralympian, Track & Field Captain), Scout Bassett (USA Paralympian, Track & Field), Amy Richardson (ISPO), Noor Khazem (Specialist Technician), and Sophie Reynolds (Support Technician)





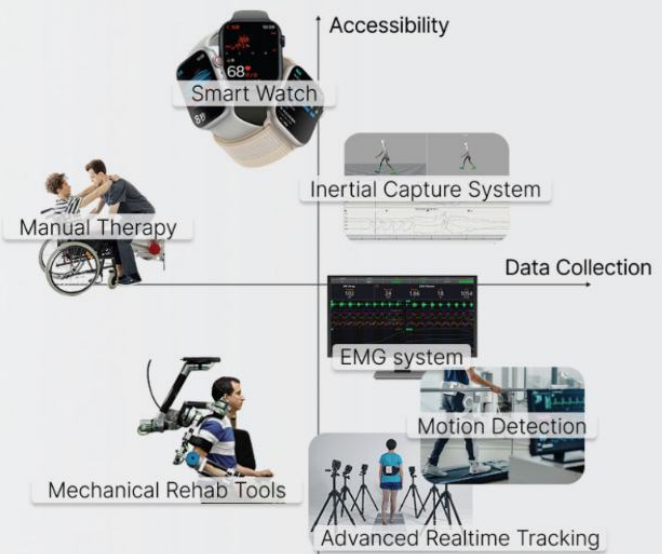
Interview Themes

1. High demand and financial barrier for professional rehabilitation care
2. Research and insights are restricted to select demographics with access to clinical testing
3. Clinical testing requires controlled environments that depend on optical motion tracking systems

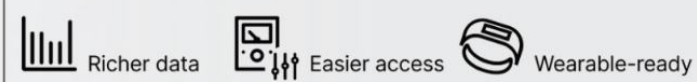
A wearable biomechanical analysis system that integrates electromyography (EMG) and inertial measurement (IMU) sensors within a auxetic textile structure to capture continuous, high frequency movement data.



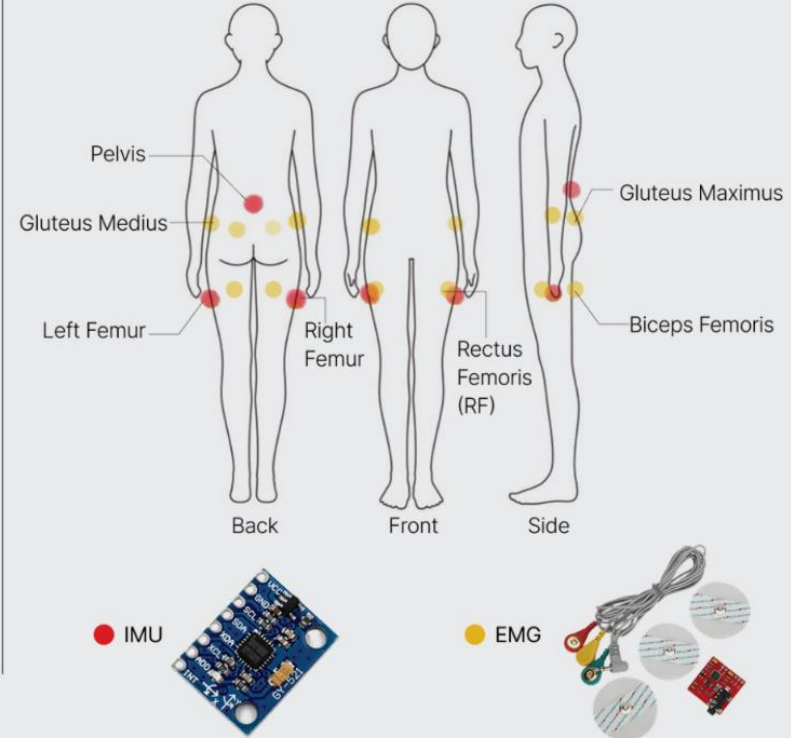
Product function comparison matrix



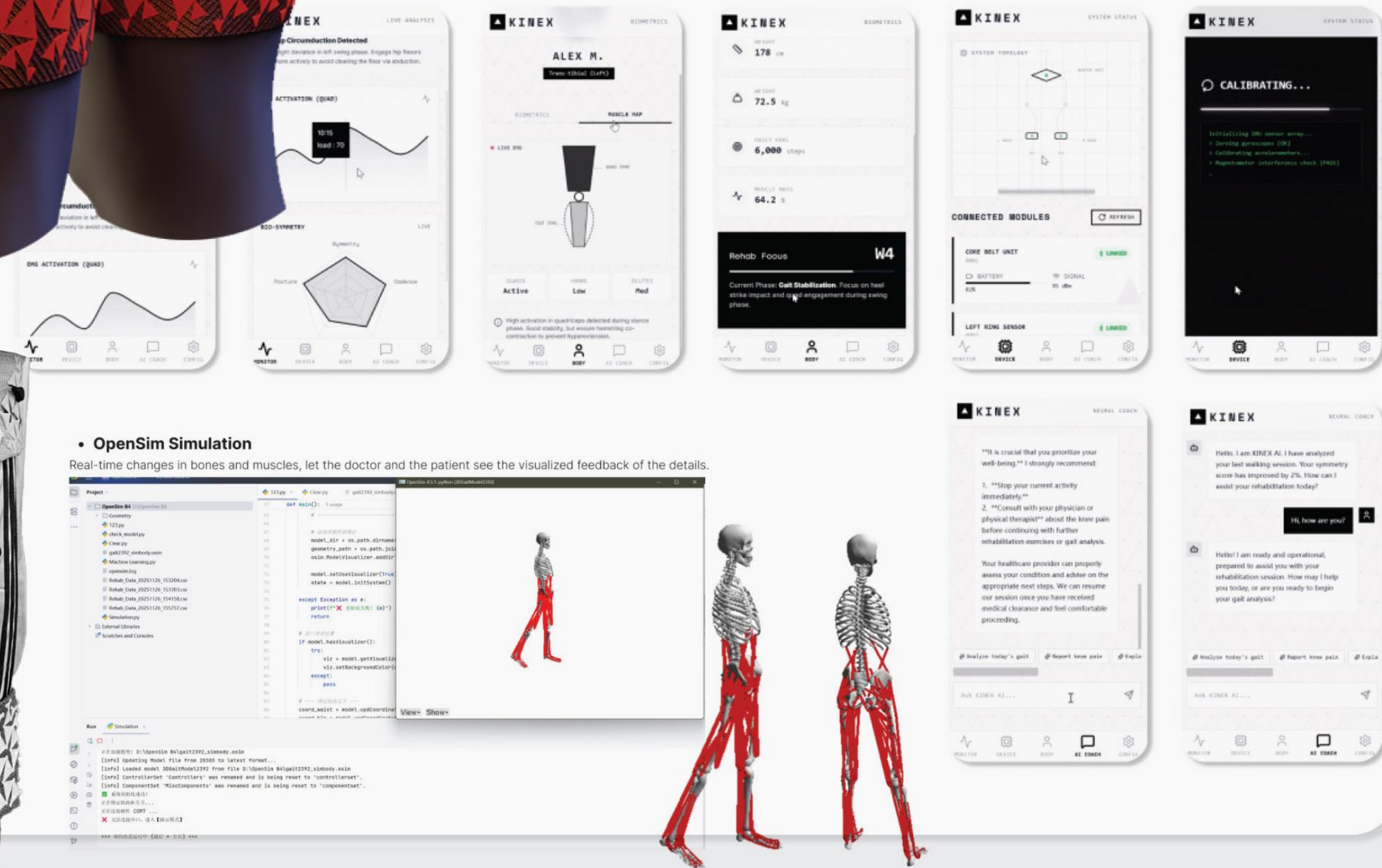
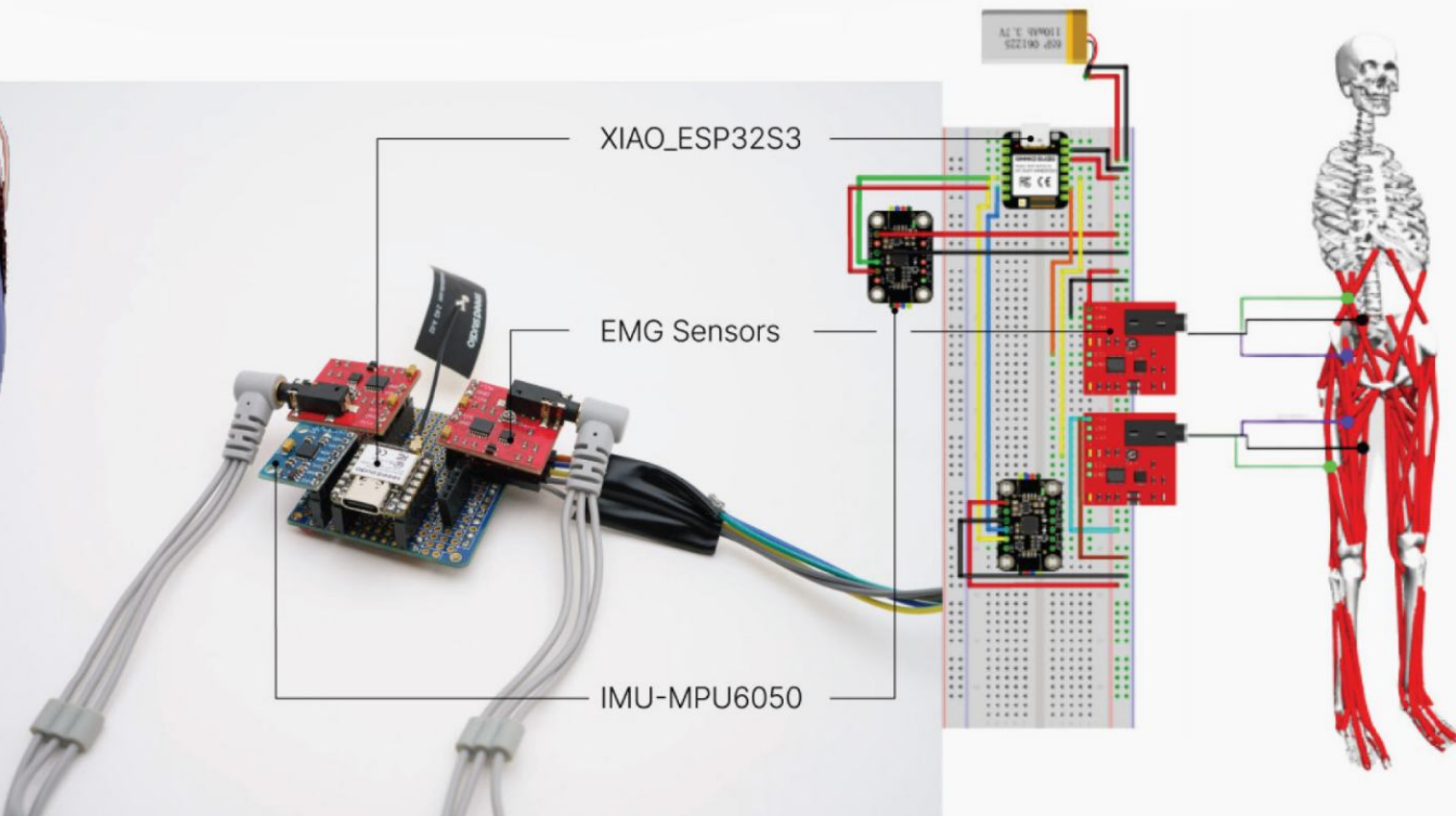
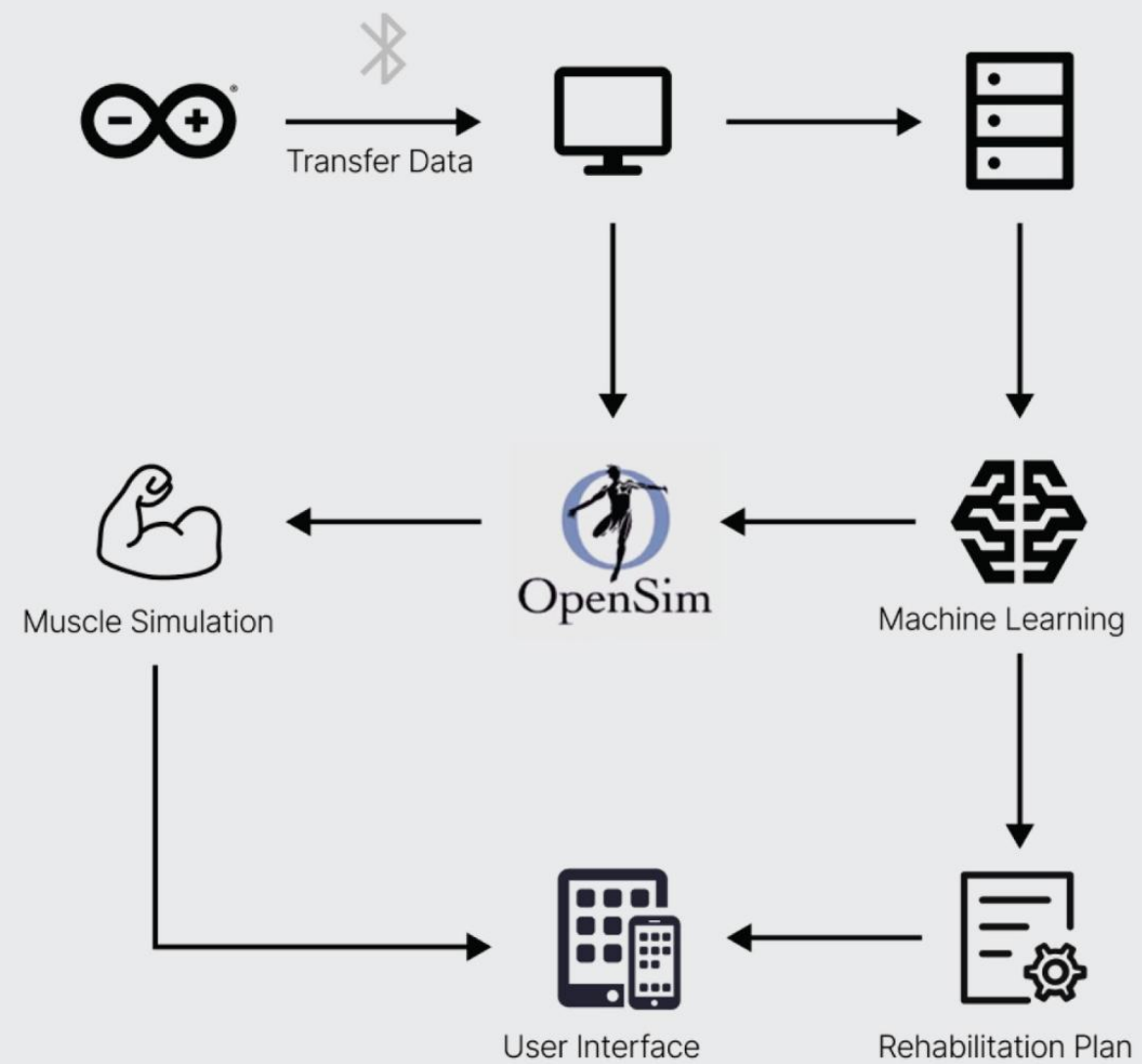
What we want



IMU & EMG placement



Working flow



Permacomputing Maternal Devices: Challenging Heteronormative, Western Notions of Motherhood and Nourishment through Transdisciplinary Speculative Designs

2026

A speculative design project that critically evaluates how Western assistive pumping technologies enforce restrictive maternal ideals. Through ethnographic research, conceptual refinement, and material experimentation informed by abject art, this design process reimagines the convergence of technological devices and care. By abstracting technical components into evolving wearable vessels, the physical speculations develop inclusive, transdisciplinary systems that prioritise personal user autonomy over extractive data architectures.

territory

How assistive milk pumping technologies influence notions of motherhood, femininity, and nourishment.

problem

Western approaches to breastfeeding prioritise design optimisation for time efficiency, production yield, and discretion.

solution

A co-design approach to redefine the language of motherhood, femininity, and nourishment by integrating technical and sociocultural approaches to holistic wellbeing.

Special Thank You to...
Dr Paulina Yurman, Ece Tan (Specialist Technician)

Long-Term Road Map

Manipulating the milk pump through abject art

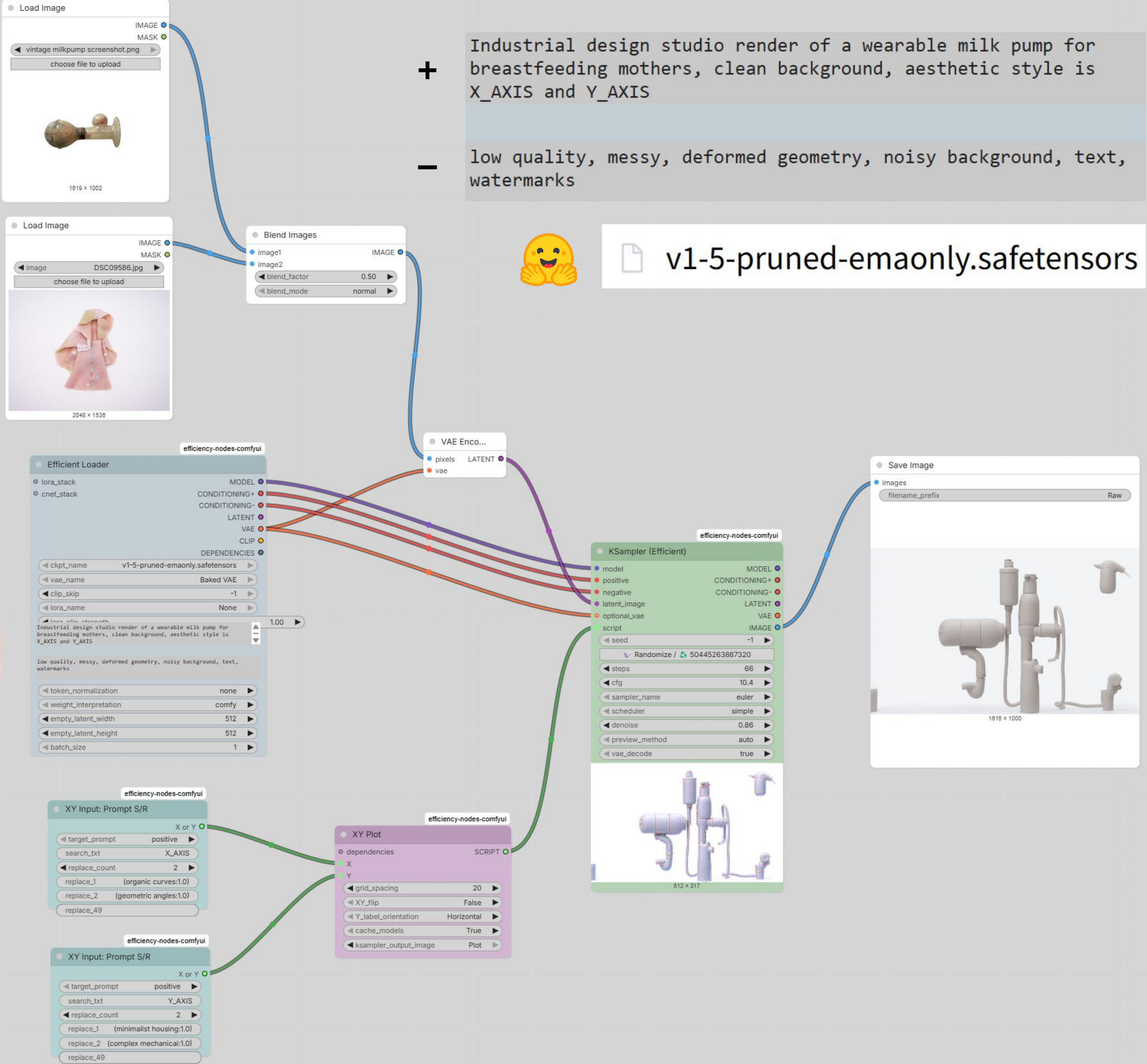
- Context medical clinic, gallery, butcher shop, garden
- Subject people of colour, gender fluid, queer
- Materiality body horror, gore, memoraphilia

How do AI agents versus human users respond to speculative design?

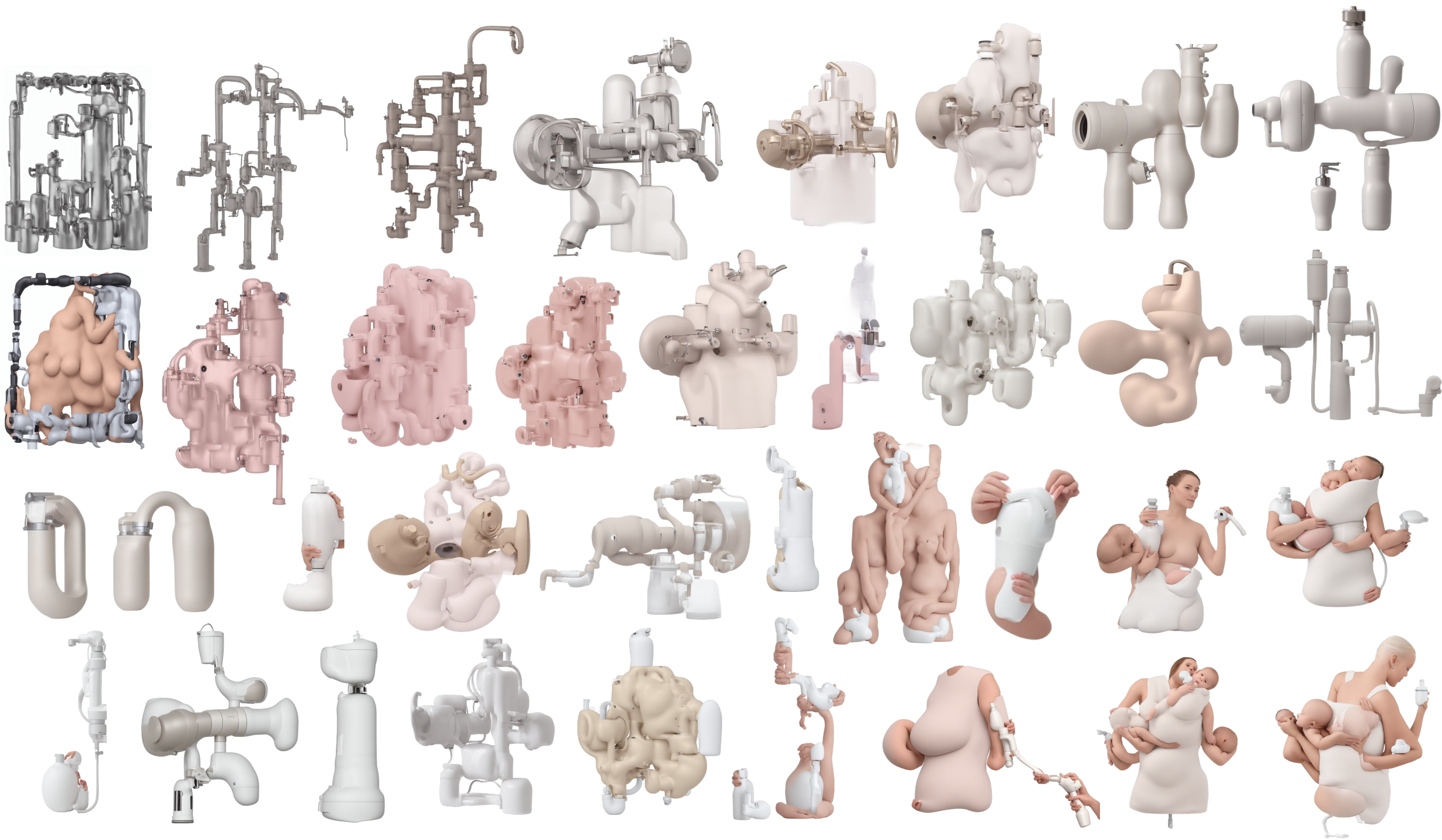
- Human Response optical facial analysis, verbal or written feedback
- Generative AI ComfyUI diffusion models

How can these responses insight tools to support motherhood outside of the heteronormative, western experience?

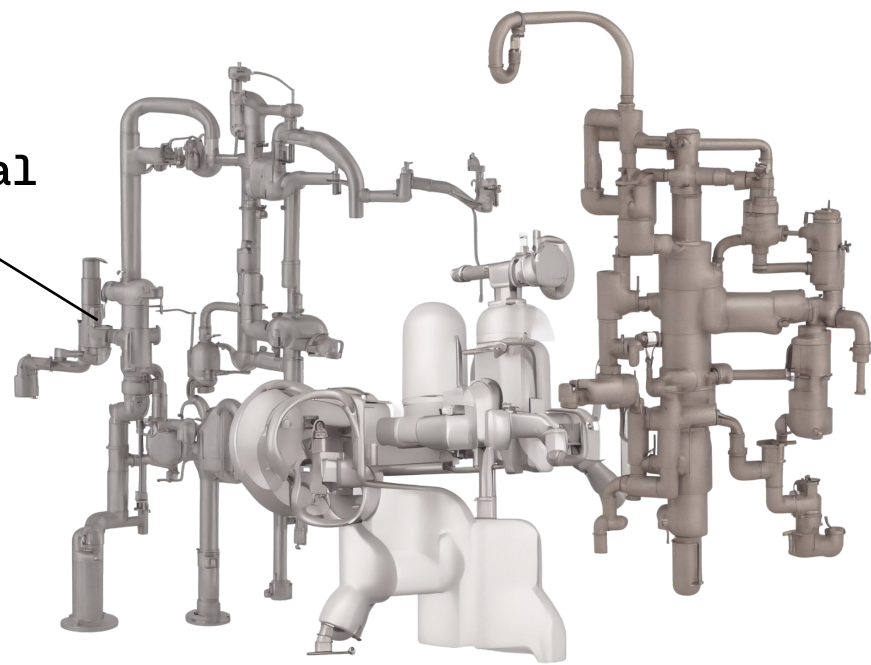
Design Development – Mapping Nodes



Design Development – In Conversation with Generative AI



hyper-mechanical



gun-like form



focal point for projection/extraction



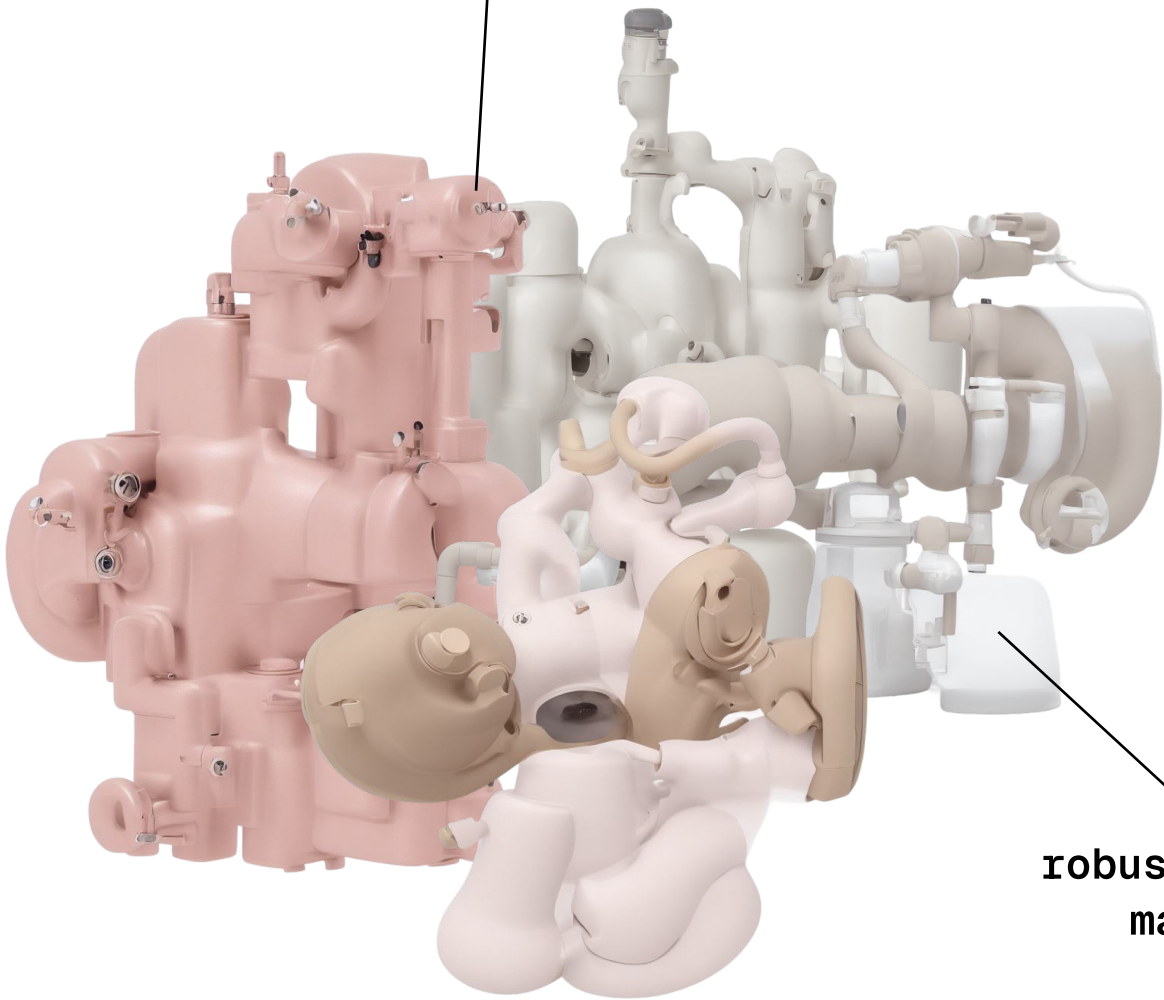
externally-acting devices

all bodies generated are Fitzpatrick scales I-II

dominantly Caucasian features



mechanical fixings



robust, tubular machines

The Mechanism: OpenAI's CLIP model for Stable Diffusion 1.5

Mapping Words to Pixels
Calculating the Average

The Source of the Bias: Uncurated Training Data (LAION-5B)

Result: highly medicalised, plastic aesthetics, and historically homogenous stock-photo representations of mothers

Commercial Aesthetics
Demographic Skew - overrepresents Western, white, and affluent subjects
Algorithmic Amplification - amplifies the majority and erases the margins