

FASA - Special Project Grant: Group Category - Fungal ReCognition

Budget

Name	Fungal Re-Cognition: Tangible Media Final for CART 461	
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Group	Mariam Aoune, Jennifer Brown, Leonardo Morales Vega, Francis Ouellette, Negar Roofigariesfahani, Jaden Thompson, Jiahao Wu	
Section 1: Expenses		
Description of Expenses	Eligible Amount	Non-Eligible Amount
Electronics Supplies	\$338.00	\$35.00
RGB Led Strip WS2812B	\$98.00	\$0.00
Diy synth biodata sonification midisprout	\$100.00	\$35.00
Passive components (resistors and capacitors)	\$15.00	\$0.00
Printed circuit boards	\$15.00	\$0.00
LED strip diffuse sleeves	\$50.00	\$0.00
Electroluminescent wire	\$60.00	\$0.00
Art and 3D Printing Supplies	\$40.00	\$0.00
3D-Printing PLA	\$25.00	\$0.00
Paint	\$15.00	\$0.00
	\$0.00	\$0.00
	\$0.00	\$0.00
Mushroom Cultivation Materials	\$89.00	\$0.00
Slime Mould Culture	\$14.00	\$0.00
Oyster Mushroom Grow Kits	\$75.00	\$0.00
	\$0.00	\$0.00
	\$0.00	\$0.00
Exhibition/Display	\$35.00	\$0.00
Non destructive wall-hanging supplies (e.g. Command Strips)	\$35.00	\$0.00
Speakers (CDA-rented)	\$0.00	\$0.00
Projector (CDA-rented)	\$0.00	\$0.00
Extension cords (CDA-rented)	\$0.00	\$0.00
TOTAL		\$35.00
NOT: Expenses not covered by your FASA SPG, Project or Club Funding can be covered by other grant opportunities at Concordia university (Dean, Departments or Other) but also through fundraising and contribution events.		

Project Statement

Created as a final project for CART 461, *Fungal Re-Cognition* is an interactive display exploring fungal networks and communal behaviors, inspired by a speculative fungi-human symbiosis of mycorrhizal networks. The piece consists of mushroom-like sculptures, equipped with capacitive touch sensors. Users are invited to interact with these sculptures, triggering the transmission of signals across the mycelial network created from LED light strips interconnecting the mushrooms. We also include PIR sensors, projected visuals, and speakers within the environment to respond to the user's interaction. The display is intended to educate and include human participants within the transmission systems facilitated by fungi; both in speculative biotechnological futures and in the mycorrhizal systems foundational to countless ecosystems.

Project Description

Inspired by the collective intelligence of slime molds and the symbiotic networks of mycorrhizal fungi, this interactive project aims to unveil the hidden mechanisms of fungal

colonies through a lens of speculative symbiosis between fungal colonies and information technology. By conducting experiments with oyster mushrooms and slime molds, we will investigate their responses to various stimuli and identify patterns of distributed intelligence. Slime molds (unicellular fungi) are able to move as a whole to find the shortest path to resources, forming optimized mesh networks imbued with intentionality. Similarly, symbiotic mycorrhizal networks interconnect previously isolated resources, such as trees which enable the fungal growth, to form massive networks of communication and resource distribution that amount to symbiotic forests. The findings from our exploration into mushroom cultivation and slime mold behavior as well as secondary research into mycelial activity and fungal wetware will be incorporated into an interactive exhibit that allows visitors to engage with fungal colonies and explore the potential for collaboration between humans and these remarkable organisms. The transformative properties of biological computation exist for their own means, apart from human ideals of useful or productive activity. *Fungal Re-Cognition* invites participants to reflect on the nature of biological non-human cognition, recognizing interconnectedness as a form of intelligence. *Fungal Re-Cognition* as an interactive experience exposes hidden mechanics of resource distribution in biological networks, and introduces humans as positive agents within the loop of interactivity.

Will your project impact, involve or inform the Concordia Fine Arts community? How?

Fungal Re-Cognition will make a significant impact on the Concordia Fine Arts community, as well as the research spaces that our team members are involved with in the university. The project's perspective on fungi, interactive nature, and educational potential fosters interdisciplinary collaboration, critical thinking, and a deeper understanding of the natural world. By inviting audience participation and showcasing innovative technologies, the display offers a unique and engaging experience that challenges traditional notions of art and technology. The artistic assets produced in this project can feed into future projects in collaboration with the Sensor Lab and research clusters in the Milieux institute such as TAG and the Biolab, as well as promote intersection with other departments.