Proposal Feedback: CART 360

October 19, 2023 : Meeting with Elio

Mounting

- Why opt for a board on the wall?
    - Wall mounting could cause additional difficulties (height accessibility, awkward interaction of reaching up causing arm strain…)
    - Wall mounting limits the potential interactions
- Why not tabletop?
    - A tabletop structure could emphasize the desired interaction
    - An area for people to gather, see: storytelling, hearth, conversation, oral history
    - Additionally reduces issues with accessibility
    - Allows for increased investment from the user
    - Would also allow for more interesting or delicate visual design, various potential materials and forms

Form

- Why not a circular board?
    - Allows for equal distancing from the board perimeters
    - Reinforces the themes of nature, community, land
    - Perhaps it could mimic a topological map of the island…

Sensors

- For an rfid reader to have appropriate range, a custom rfid antenna with hundreds of rounds of wire going along the range perimeter
- Many readers require tag placement right on top of the reader for it to be picked up
- Also note materials exist on a scale of RFID lucidity, from opaque to lucid. Lucidity of the material dividing the reader and tag is required for communication.

- Alternative option 1:
    - Larger objects with microcontrollers inside, communicating using I2C comms
    - On placement, they access power and I2C channels, announcing themselves on the board. Location cannot be assessed, but unique ID
- Option 2:
    - Inside the objects, place an infrared LED blinking at different frequencies. Mount an IR camera pointing at the board from the ceiling. Map the area and board perimeters, and identify the location of the objects by searching for the location of their particular blinking pattern.

- Most complicated, but allows for object location determination
            - Interruptible signals and finicky detection
    - Option 3:
        - Physical connection via audio jacks embedded in the board and objects

Audio

- What if: speak and spell, instead of direct representative animal sounds, maybe digital voice replication? Animal sounds made by humans. Leave room for creativity. Overly representational sounds may not spark the feeling/interaction thats desired
    - Think about how different people are going to interact. Encourage playful interaction

---

November 2: Prototype Presentation Feedback

- See Adafruit lights for interesting & inexpensive RGB setups
    - https://www.adafruit.com/category/37
- See digikey for small RFID tags/capsules to embed in objects
    - Be sure to check the emission frequency – must match that of the reader
    - https://www.digikey.ca/en/products/filter/rfid-transponders-tags/853
- Board design: research the landscape of pre-colonial Montreal (there are certain natural structures like rivers which have since disappeared)
- Object design: experiment with greater abstraction and various materials
    - *Abstraction increases the drive to interact*