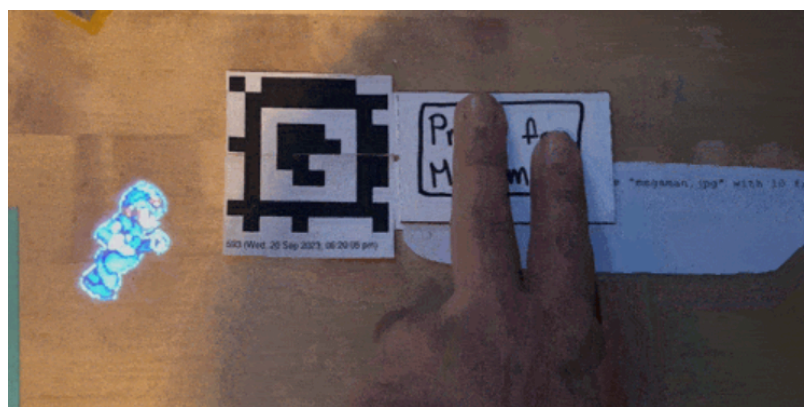
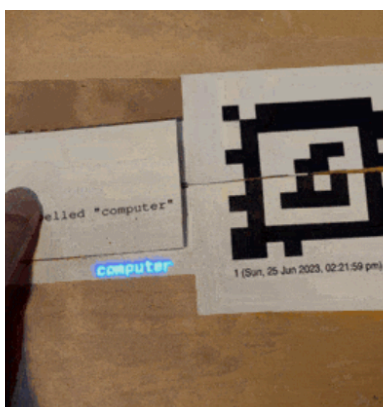
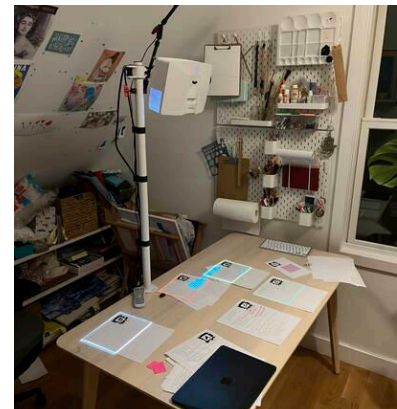
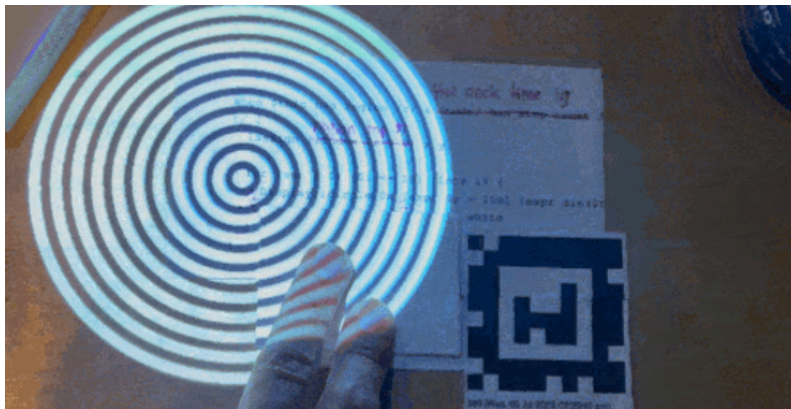


Folk Computers as Game Interfaces

Melody Henrich

Overview

This directed study's purpose is to experiment with folk computers in the context of games. A folk computer is a three part setup, consisting of a computer (e.g. Mini PC or Raspberry Pi, or perhaps a laptop), a projector, and a camera. The camera is then used to read visual input in the form of ArtilTags (like QR codes, but specialized for robotics) that contain encoded computer instructions, placed on a flat surface. These instructions are processed by the computer, and the graphical results are projected back onto the flat surface on or near the ArtilTags, depending on what code they contain. The key aspects of folk computers is that they endow physical objects with computational properties on a human/room-wide scale, while making those physical objects user-scriptable. While this project is folk computer inspired, it may not take the form of a full folk computer, but something that abides by the same principles nonetheless.



Final Deliverables

- A game interface that adheres to the core folk computer aims
- A development log that contains the following
 - Week-by-week progress updates
 - Meeting notes from update meetings with faculty supervisor
 - Playtest notes from any playtests conducted during the project
- A pitch deck for the use of the product as a game interface
 - Use case and benefits of interface over others
 - Retrospective on the development process, key decisions, etc.
 - What would continued development look like?

Action Items

Design

- ☐ Investigate viability of using self-made software for the product instead of the folk software
- ☐ Plan and assemble a portable setup for the product
- ☐ Decide the game experience to be accomplished with the product
- ☐ Playtest the game experience

Programming

- ☐ Set up the interface by doing one of the following
 - ☐ Set up the software side of a folk computer
 - ☐ Write and set up custom software to accomplish the same objectives
- ☐ Implement the game experience using the interface
- ☐ Make any necessary changes from playtesting

Schedule

Date Due	Deliverables
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- | | |
|------------|---|
| 2024-07-15 | <ul style="list-style-type: none"><input type="checkbox"/> Investigate viability of using self-made software for the product instead of the folk software<input type="checkbox"/> Plan and assemble a portable setup for the product<input type="checkbox"/> Decide the game experience to be accomplished with the product |
| 2024-07-22 | <ul style="list-style-type: none"><input type="checkbox"/> Set up the interface by doing one of the following<ul style="list-style-type: none"><input type="checkbox"/> Set up the software side of a folk computer<input type="checkbox"/> Write and set up custom software to accomplish the same objectives<input type="checkbox"/> Begin to implement the game experience using the interface |
| 2024-07-29 | <ul style="list-style-type: none"><input type="checkbox"/> Continue to implement the game experience using the interface<input type="checkbox"/> Playtest the game experience<input type="checkbox"/> Make any necessary changes from playtesting |
| 2024-08-05 | <ul style="list-style-type: none"><input type="checkbox"/> Playtest the game experience<input type="checkbox"/> Make any necessary changes from playtesting<input type="checkbox"/> Finish implementing the game experience using the interface |
| 2024-08-12 | <ul style="list-style-type: none"><input type="checkbox"/> Wrap-up development and finalize git repository<input type="checkbox"/> Create the pitch deck<input type="checkbox"/> Prepare the development log for final submission |

References

- [The official Folk Computer website](#)
- [Folk computer hardware advice](#)

All photos taken from the official website.