Gesture Based UI Development Project

A Unity Application developed using the Kinect V2 that incorporates the unique use of various Gestures and Speech Patterns into two separate games linked together by a gesture-controlled UI

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# Purpose of Application

* Going to generate the pdf from this when it’s finished
* I need to change the font size of most of these headings

The purpose of this application is to explore the something

* Something
* Something

# Application Interface

# Menu/UI System

* Talk about the UI, scores, voice navigation, play game one/two etc.
* Pics of stuff
* Also @Alex could you add a Help button or something in the menu that brings them to just a page that just describes what they have to in each game & the menu, like swipe to go back, say the words in the brackets to press that button and stuff.
* Could even add a help button beside [Game One] and [Game Two] that brings them to separate help pages to describe that game, if you get them up, I can write the stuff in them.
* Swipe navigation is cool for this but I can’t use it SNIFF SNOFF ☹

# Research

You looked at the stuff in the Library, that’s some good research boyo. A lot of the research was just done while trying to find people that actually used the Kinect for this stuff. We used Unity because of something. The voice recog crap was really easy to implement with Unity, and the Kinect was done in a lab? I can’t remember.

# Resources

Some images maybe of some similar games don’t know, and maybe some gesture diagrams or something??

YouTube videos would be good here too, Brackeys and Alexander Kalashnikov. Birb game was thought of cause we like Airplanes.

# Application Design

# Design Goals?

Voice navigation, swipe, user experience, interactions, everything is constant time back to the user, types of gestures, continuous/discrete etc.

Our goals were to implement as many gestures as possible into our game so that it had to be controlled as little as possible with your hands. Pretty much the whole game can be done without actually touching the computer, pretty cool.

# Divided Workload?

Faris Nassif :

* Kinect Gesture Database
* Motion Control for Games
* Menu Navigation using Swipe Gesture
* Scoring Systems
* Game Mechanics

Alex Cherry :

* Voice Recognition
* Menus and Navigation
* Sprite Animations
* Game Mechanics

Some stuff here, Faris : (Kinect : Gesture database, menus, swipe for menus, motion control for games), scoring systems, game mechanics. Alex : Voice recognition, menus and navigation, sprite animations, game mechanics.

# Hardware

Talk about the Myo/Kinect/Leap motion thing here, this part is written in past tense, so we haven’t done the project yet, we ‘wrote’ all the research stuff before

# Architecture

Diagram describing software architecture or something

# Libraries/Game Engine/Talk more about architecture diagram

# Testing

Used my brother for testing because sure he may as well have

# Strategy/Methodology

Integration testing, Regression testing, system testing, always testing along while getting functions working (regression testing). Test other functions once other function has been added (integration testing) and I guess this is system testing too.

# Who tested it?

Alex’s brother and Faris’ dogs.

# Acceptance/Beta tests

# Methodology

# Results

We added or changed this thing because we tested it and yea

# Conclusion

The project is pretty awesome, turns out flappy bird is a fun game when anime music is put into it. Balloon game gives me nightmares of PC crashes but other than that its pretty noice.

# What we learned

We learned that the Kinect is pretty cool, and that you can make pretty much any Gesture you want by using the Kinect V2s built in Gesture Database system with Unity. It requires immense repeated testing but is very accurate once fully functional.

# What we would do differently

Not get Coronavirus lul