The Stitch and Rotten Woods

Project Team Members
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Project Summary

This project is making a mobile platform to play an original Zombie game. The game is home survival that can go on indefinitely. Waves of zombies will spawn and hunt the player down wherever the player goes. Can you survive the Zombie Apocalypse?

Goals and Objectives

The goal of this project is to make a mobile platform to play games on and a game to play. The game should be simple and not require to be plugged in or wife so that in case of a power outage can give someone something to do to pass time.

GitHub Repository

This project's GitHub repository is located at: https://github.com/Pupp3tt/2020CompSci.git

Versions: 2 – one for just keyboard, one for platform
Name of game for keyboard: Game_Keyboard
Name of game for platform: Game_Platform

Bill of Materials

Hardware

Raspberry Pi B v3: $35.00
SmartiPi Touch 2: $27.99
0.093” x 11” x 14” Clear Acrylic sheet x4 - $26.68
MCP3008 - $12.50
Wires multicolor - $19.51
Joysticks x 2 - $4.89
Battery - $ 24.99
Buttons - $7.90
USB to type C x 2 - $7.99
Speaker - $10.00
Wood –
Screws –
Nuts -
Glue –
Paint (Blue, Red, Black, Yellow) - $ 20.00
Brushes - $ 5.00

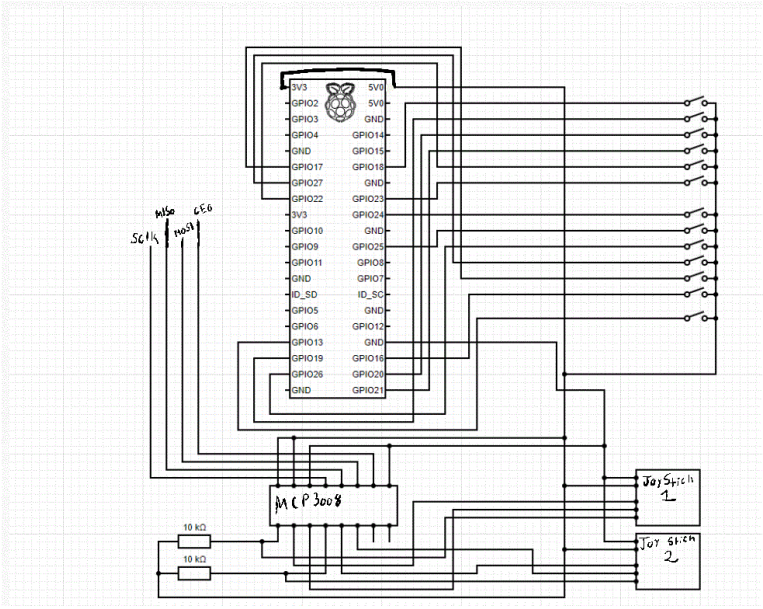
Software

Python v2.7.9
Pygame v

GPIO and GUI

GPIO is done through breadboard and is connected with wires to buttons, MCP3008, and Joysticks.

Circuit diagram:



GUI is told to print an image and or abject in code to LCD touchscreen to provide images.

GUI from game:

Gantt Chart

	Project Title	Week 1 Apr 9-13					Week 2 Apr 16-20					Week 3 Apr 23-27					Week 4 Apr 30-May 4					Week 5 May 7-11					Week 6 May 14-18				
3	Research																													
4	Classes																													
5	Building																													
6	Coding																													
7	GUI																													
8	Testing																													
9	In-class Project Days																													
10	Final project presentation																													

Future Development Plans

Game:

- Fix/better scaling
- Fix doors
- Add weapons image
- More than one enemy
- Aiming system
- More levels
- Day nigh cycle
- Water/Hunger
- Item Drop
- Limited ammo
- Change zombie and player animation
- Add different zombies

Platform:

- Allow other games to be played
- GUI to select a game

Lessons Learned

Hardware:

- MCP3008 and joystick set up and code

Software:

- Print/load an image
- Animate movement

Relate to Living with Cyber:

- Needed to code a lot. The class and the project had to deal with GPIO, inputs, outputs, and GUI.

Problem solving experience:

- Needed to find ways around small problems such as:
  - Bullets changing to arrows when change weapons
  - When changing to GPIO quick changing weapons to fast
- Sized down:
  - Sized done the project once realized was trying for too much in short time

Future:

Know more about how not to over promise a project in short time
Hardware capabilities and need to do more research
How to do GUI better and simple game style.