

Controller Read me

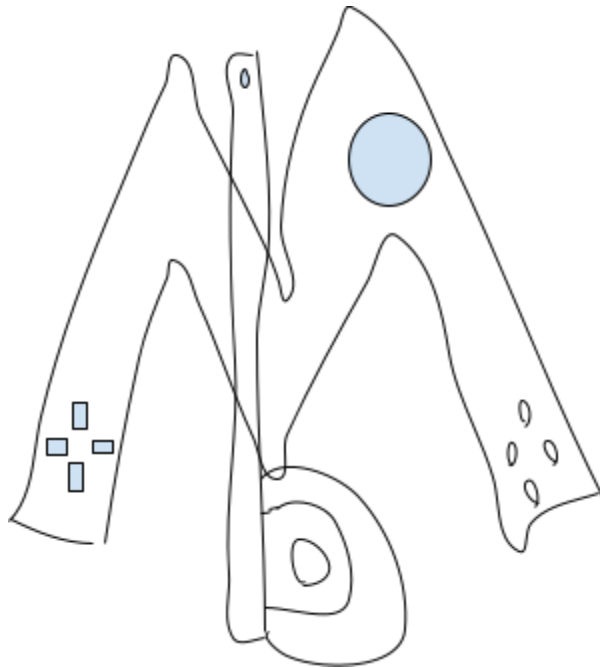
Link to Doc for working Gifs:

<https://docs.google.com/document/d/1xZBi9KXqXY9MyEPhsdJzQ39GcellGPSm5kTkEw7KSI/edit?usp=sharing>

Brain Storm:

Name Initials: M P

Idea: I want to make a novel controller for the game overcooked, It will use 1 joystick, 8 push buttons, a LED and a buzzer.



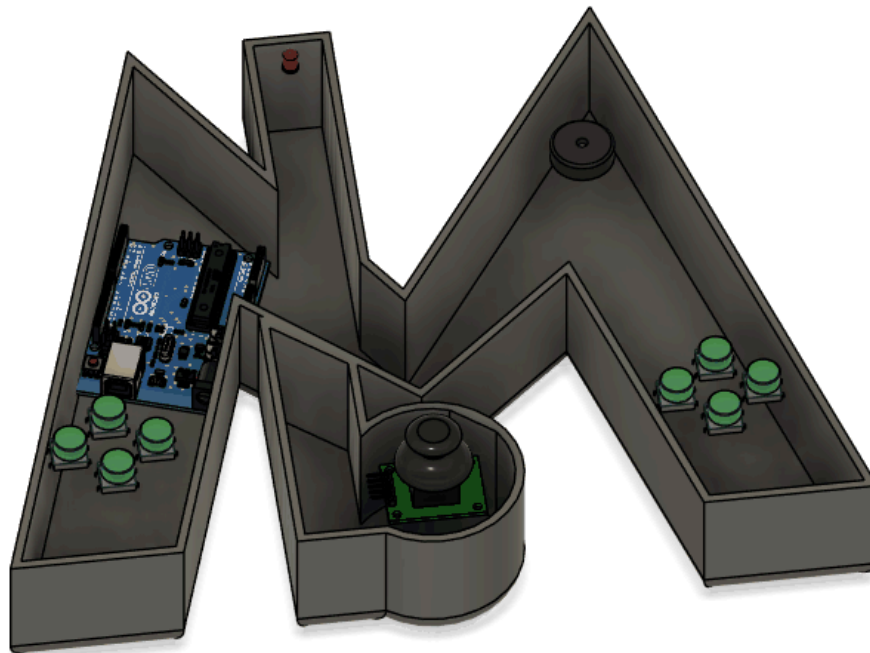
I have designed it so that the player can use the right buttons to interact in the game, and the joy stick to move. Since the d-pad is only used to emote the player does not always need to hold on to it. This is why the player only needs to hold two of three places at once. This also has a Led and Buzzer, both of these will flash/buzz when the player is about to run out of time in the game.

Electronics Prototype:

In this prototype the values of the joystick(shown here with two potentiometers) and buttons is compressed into a string and sent through the serial monitor, this can be read by the game and will be used to control the in game character. The game will also post the time value in the serial monitor allowing the LED and Buzzer to flash when the time is low.

```
H:1023,V:450,DUp:0,DDown:0,DRight:0,DLeft:0,BRight:0,BLeft:0,BUp:0,BDown:1  
H:1023,V:450,DUp:0,DDown:0,DRight:0,DLeft:0,BRight:0,BLeft:0,BUp:0,BDown:1  
H:1023,V:450,DUp:0,DDown:0,DRight:0,DLeft:0,BRight:0,BLeft:0,BUp:0,BDown:1  
H:1023,V:450,DUp:0,DDown:0,DRight:0,DLeft:0,BRight:0,BLeft:0,BUp:0,BDown:1  
H:1023,V:450,DUp:0,DDown:0,DRight:0,DLeft:0,BRight:0,BLeft:0,BUp:0,BDown:1  
H:1023,V:450,DUp
```

Assembly:



VideoLink: https://youtu.be/fw3fxxY9s_4

I started modelling in Fusion by first placing all my components roughly where they were supposed to be and then drawing my rough controller shape over them to make sure that they all fit. While doing this I realized that I would need to make the controller bigger so that I could fit my components inside of it. Especially the Arduino. I then extruded the shape and made an offset so that i could hollow out space for my components.

Exploded View/ Technical drawings/ Bill of Materials:

