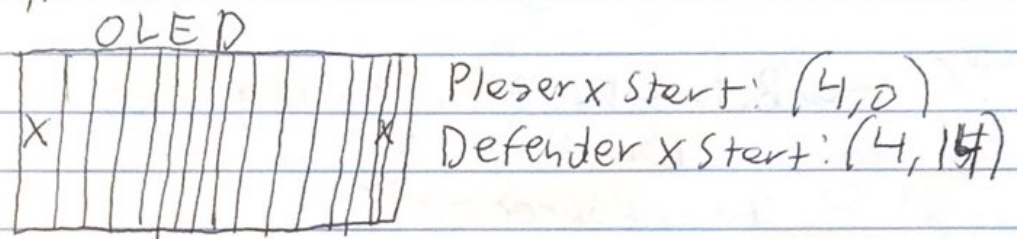


Fihel Project Schematic Pseudocode.

Start • Game will start with 2 X's on the screen, X in the middle of column 0, X in the middle of column 15. X in column 1 is offensive Player (Player X), X in column 15 is defender Player, (Defender X).



~~Player~~ Player Will be used to move Player X up and down Column 1. This will be based on the Player's rotary switch. Turning Player X's rotary switch left moves Player up. Turning it right moves Player down alongside the column.

If $\text{newRotaryVal} < \text{currentRotaryVal}$:

dec row by 1

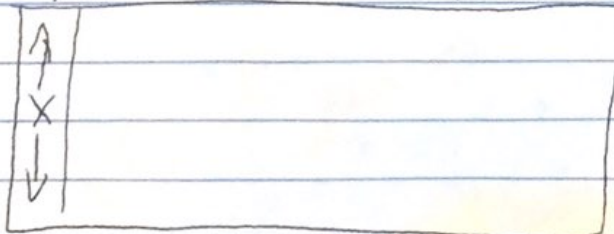
update screen

If $\text{newRotaryVal} > \text{currentRotaryVal}$:

inc row by 1

update screen

* There will be a minimum and max location to control



X going ~~above~~ too high up
or too low down

2

Will be used to move Defender X up and down Column 15. This will be based on the defender's rotary switch. Turning the rotary switch left moves player up. Turning it right moves player down along side the column

Defender
Rotary
Switch

If new Rotary Val Def $<$ Current Rotary Val Def:

dec row by 1

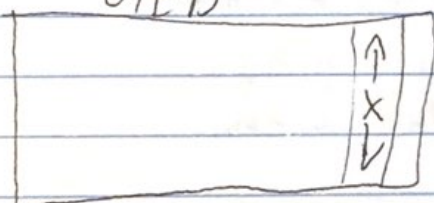
update screen

If new Rotary Val Def $>$ Current Rotary Val Def:

inc row by 1

update screen

OLED



3

• ~~Button~~

Button is used to Shoot a ball across the screen from ~~column 15~~ Player X's row to the other side of the screen. The ball (which will be a filled circle) will travel alongside the row Player X is at. It will keep moving across the screen until it either hits Defender X or Column 16. After that, the ball disappears.

Appear at location Player X

loop:

~~loop~~ CPI ball Loc, Defender X Loc
brne Save
CPI ball Column, 15.
brne Score
inc ball Row ← delay 50 ms
rjmp loop

Part
1

Save:

Remove Ball from Screen

Part
2

Score:

Remove Ball from Screen

inc Points

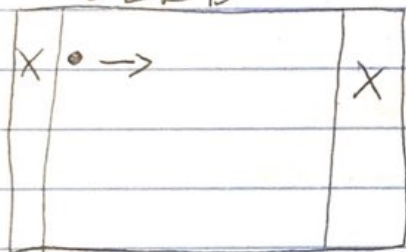
4

defender or

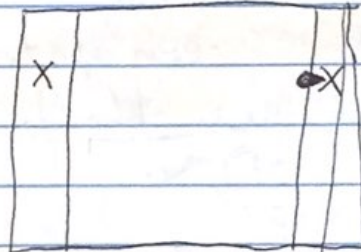
Part 2 Explains what happens once the ball hits ~~the defender~~ row 15. When the ball hits the defender, it is a save and nothing changes. If the ball hits row 15, then it is a goal and ~~a~~ a point is ~~added~~ added to points.

Button
Ball Logic
Part 2.

OLED

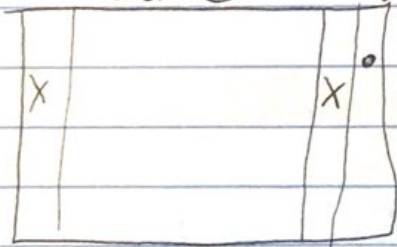


Save



Score

↓ column 15



After 5 points, the speaker will make a sound for 5 seconds saying that the game is over. After sound, the game resets to the start.

Sound
Speaker

CPI Points, 5
brne win

win:

Make sound
delay 5 seconds
Turn sound off
Reset to Beginning

Points = 0

Hardware Schematic

