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| Pong Game |
| Pong game report |

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Contents

[Pong game 2](#_Toc95688705)

[Specification 2](#_Toc95688706)

[Flowchart 3](#_Toc95688707)

[Software 6](#_Toc95688708)

[Conclusion 13](#_Toc95688709)

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# Pong game

Making pong game using joystick and emulator, we used senseHat emulator to display the player and the ball we also used the joystick from the pi to control the paddle (player).

At the start we gathered information about the game and how it works? Like what rules we need to apply for the game for example, how the player win or lose we had to check the ball against the paddle (collision), settings like velocity, X and Y positions, colours.

We divide up the work into several tasks (function) and we were working one by one function and plug them and check if they work and interact together.

The ball must stay between the boundaries to do not lose the ball or get errors during the game and the paddle must stay in between 0-7 on the Y axis.

Specification

The player must use the joystick to control the game(Up, Down, and Middle button to pause the game . The game start we draw the bat and the ball then the player must hit the ball the wall and it returns back to the player and the player should hit it back after each time the player hit the ball the score increase 5 or whatever we have sat it, if the player miss the ball then the game stops and restart again but now we decrease life by 1 so life = life -1 so when the life reach zero we stop the game (loop) and display the highest score.

# Flowchart

A picture containing text, clock

Description automatically generated

# Software

Graphical user interface

Description automatically generatedA picture containing text, whiteboard

Description automatically generatedText

Description automatically generated with low confidenceText

Description automatically generatedText

Description automatically generatedText, schematic

Description automatically generated with medium confidence

# Conclusion

The main point was how to solve problems using software plus hardware like what we did playing a game using a joystick like we are not going to play this type game in real but it is letting us control some things using a thing same idea for the PlayStation controller we made something like that but smaller.

We were controlling the player depending on the data and some logical expressions and math to interact with each other.