

# PING PONG GAME

This is a one-player arcade game that has a paddle controlled by the player and a ball moving randomly around the screen. The score of the player will be displayed on the screen using Basys 3 board. Your game is over if you don't succeed at saving the ball from going to the bottom wall.



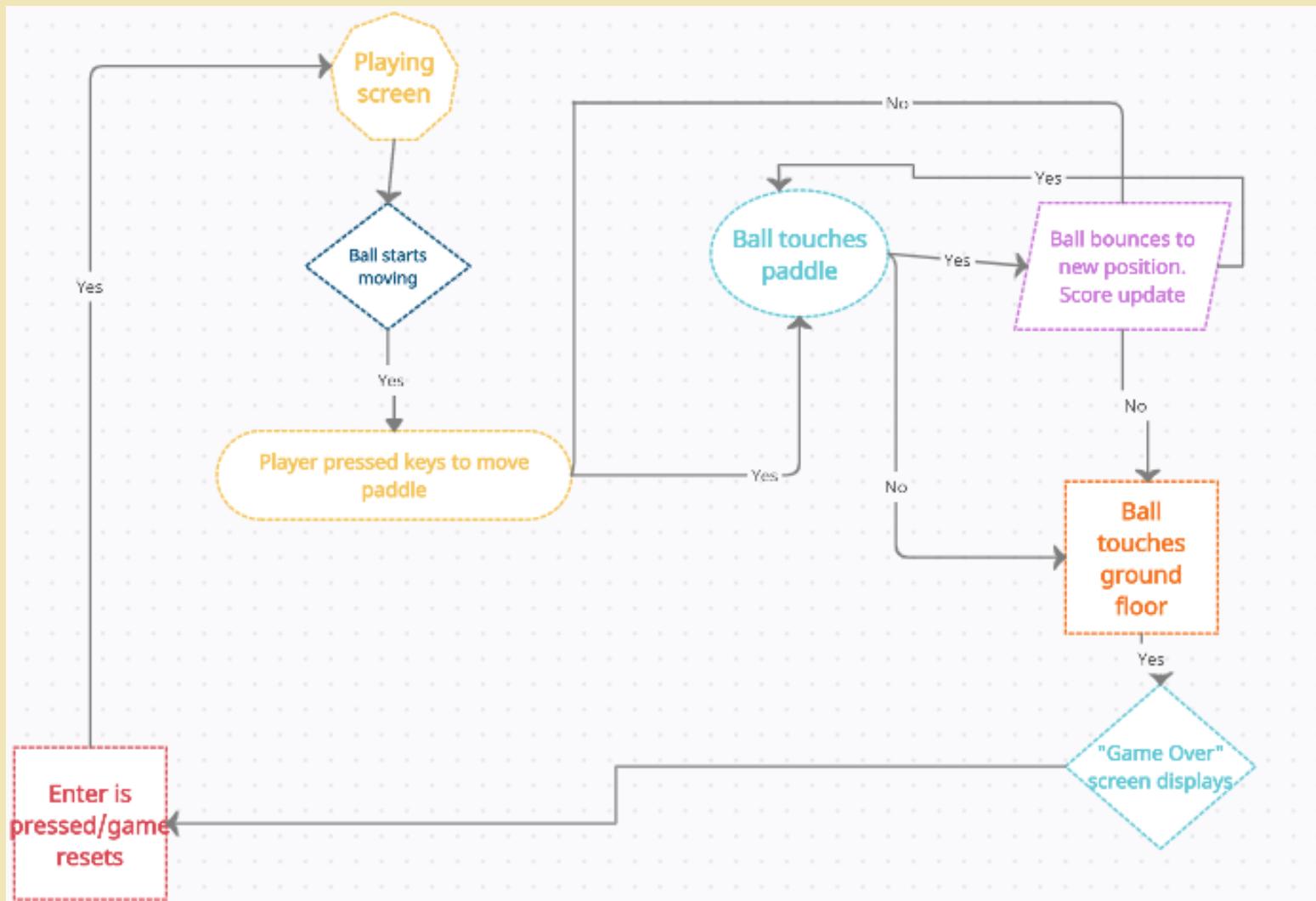
## Contributors

Nimra Sohail  
Taimoor Hameed  
Daniyal Murtaza  
Razi Haider

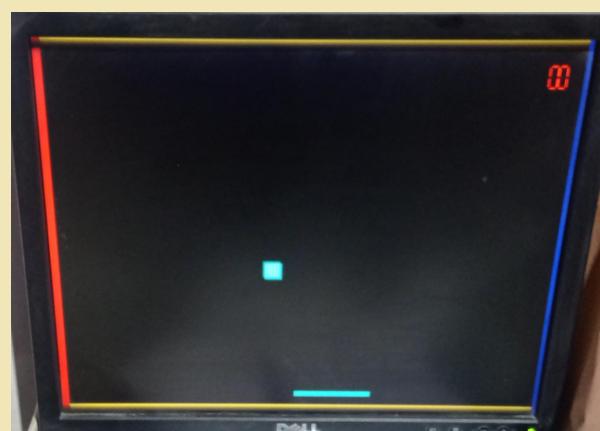
## Type of FSM for the game:

In this game mealy FSM has been used. We see that our next states are dependent on input taken from the player.

## USER FLOW DIAGRAM



## GAMPLAY SCREEN



Game play screen

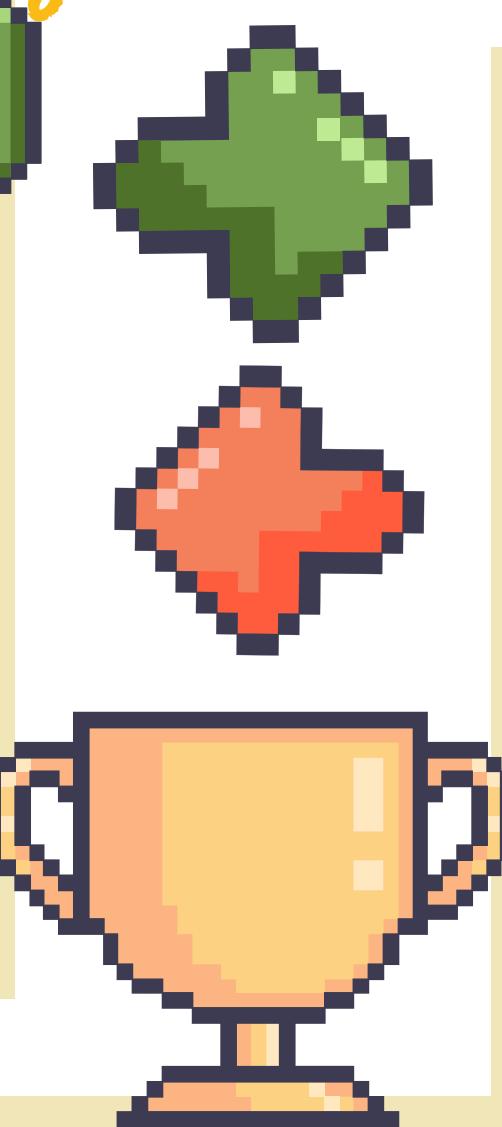
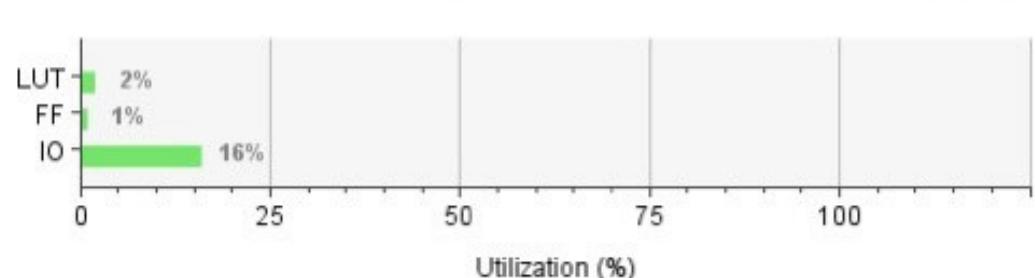


Game over screen

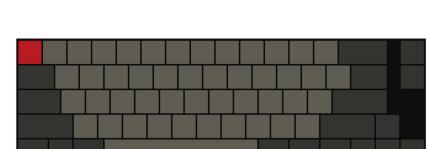
**START**

## HARWARE RESOURCE UTILIZATION

Resource	Utilization	Available	Utilization %
LUT	333	20800	1.60
FF	191	41600	0.46
IO	17	106	16.04



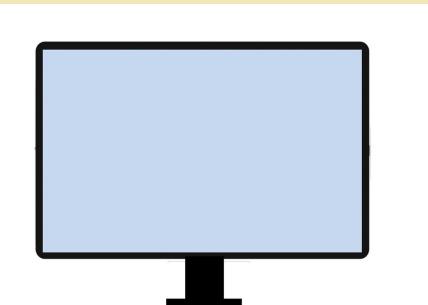
## BRIEF OVERVIEW



All inputs are taken using a standard 'QWERTY' keyboard



Our project utilizes Verilog to program a basys 3 FPGA board



A VGA controller drives every frame onto a monitor

## FSM DIAGRAMS

