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PING PONG VIDEO - Project Proposal

Design of Embedded Systems - Advanced Course (EDA385)

Department of Computer Science

Lund University

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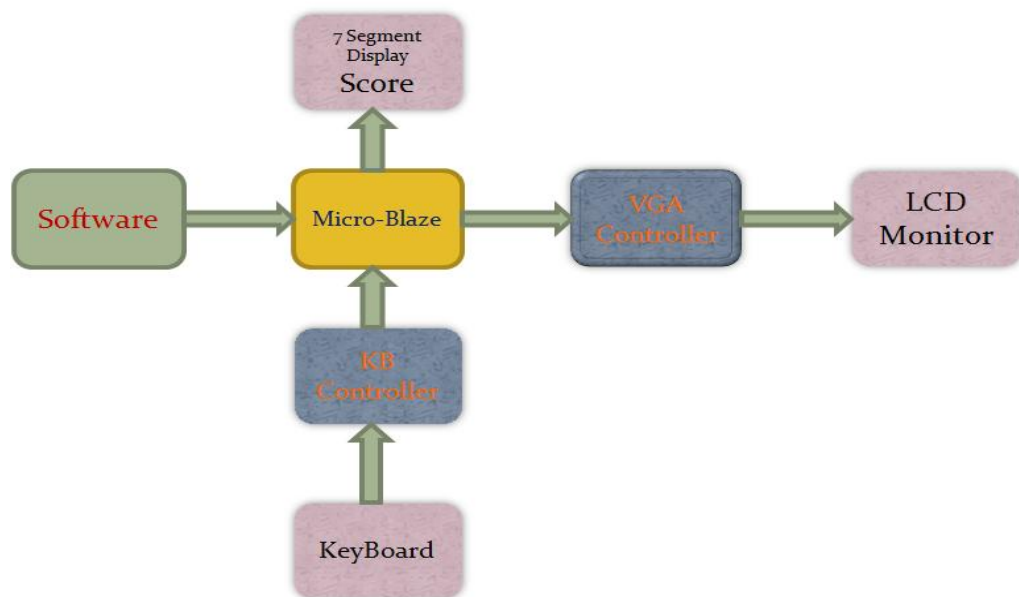
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1. Introduction

Ping Pong is an Arcade video game, which consists of two players and one ball. One can be automated with Computer and other can be manually controlled via keyboard. The ball movement is a logic depending on the physics implemented in software. The more realistic are the physics, the more practical the movements will be in the game. Player controls an in-game paddle by moving it horizontally across the screen. Points are earned when one fails to return the ball to the opponent.

2. Architecture



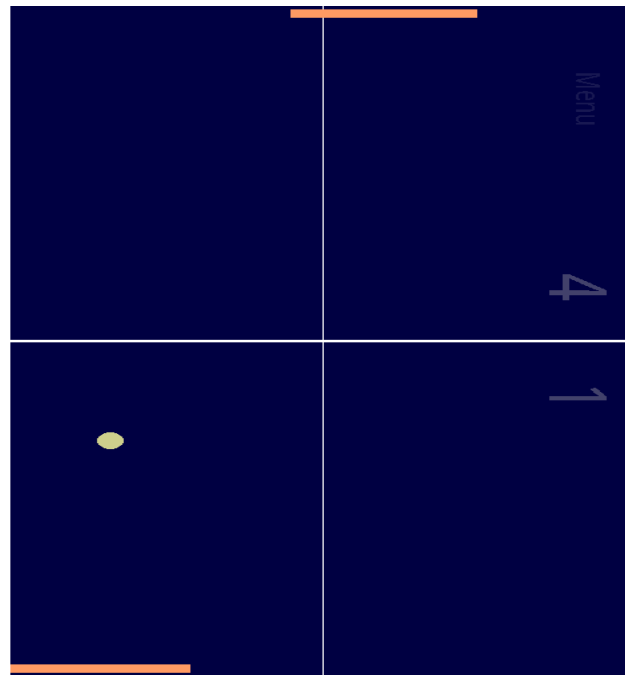
Block Diagram of Ping Pong Arcade Game.

2.1 Functionality:

First phase: Implementing a two player Ping Pong arcade game, with two pads and a ball. The pads and ball design images are stored in BRAMs. The scoreboard will be implemented with the two players score in the 7-segment display.

Second phase: Sound effects will be implemented for ball hit and miss. Power shots will be implemented to increase the acceleration of the ball.

Third phase: Implementing a computer controlled single player ping pong game.



Ping pong game

2.2 Requirement:

- VGA Controller
- Digilent FPGA kit.
- PS2 Keyboard
- 7-segment Display
- Speaker

3. Time plan

Weeks	Ajosh K	Asheesh M	Radhika M
1	Study	Study	Study
2 - 4	Hardware (VGA)	Hardware(Key Board + 7 Seg)	Software
5	Integration and Testing		
6	Report		