

Pong Game

ECE 153B Final Project Proposal

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OVERVIEW

We propose to develop a single player pong game using the LPC4088 microcontroller. The game begins when the player presses the start button on the microcontroller. The same button is also responsible for restarting the game. The player will control the push buttons which are corresponding to move the paddle to the left or right individually. The seven segment display records the times in which the player successfully catches the bouncing ball with the paddle. On the other hand, the game is over when the bouncing ball hits ground.

PERIPHERALS

1. LPC 4088
2. uLCD-144G2 display screen
3. Push Buttons (LPC 4088)
4. seven segment display
5. buzzer (LPC 4088)
6. DAC (LPC 4088)

SOFTWARE DESIGN

Using a while loop to control the game and set the game over situations; Push a special button to start the game. 7 segment display will count the player's point and after a certain time the speed of game will change and increase the game's difficulty. When player died, the buzzer will beep for a while which means game over.

GOALS

1. The ball accelerates when it hits the moving paddle.
2. redraw ball and paddle when they move to other locations

GROUP RESPONSIBILITIES

Jiacheng is responsible for hardware information collection, hardware connection, and game goal/difficulty design; Anzhe is responsible for users interface code and code used to control (code transmit with hardware); Liqiang is responsible for peripheral setup, such as setting up the interrupts and PWM signal, and interface design.