Typing Game
ECE 153B Final Project Proposal
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OVERVIEW

We propose to develop a single player typing game using the LPC4088 microcontroller. The game is controlled and played using an external keyboard. The player will play the game by typing the words (or letters) showed on the LCD screen. The board records the times in which the player successfully type in the words and push return on the keyboard as well as the words user correctly typed in so far. On the other hand, the game is over when the player type in wrong word. R.

PERIPHERALS

1. LPC 4088
2. LCD display screen(or UART Termite display interface)
3. Keyboard
4. LED

SOFTWARE DESIGN

Using a while loop to control the game and set the game over situations; type in "start" to start the game. The RTC will count the player's time of typing in. When player types something wrong, the LCD will show "Gameover" and the buzzer will beep for a while which means game over.

GOALS

1. The player sees a "welcome" screen.
2. The player can choose the difficulty of the game (determine the length of words).
3. The player sees the game performance after the game is over(words successfully typed in, average time, etc.)
4. The player could see their typing speed from the light blinking on the board which would show a green one if typed correct or a red one when it's wrong.

GROUP RESPONSIBILITIES

Xinyuan Zhang is responsible for LCD display part; Minliao Li is responsible for the game algorithm including difficulty choosing,words library, basic I/O, etc.; Wenjian Li is responsible for peripheral setup, such as setting up the interrupts and PWM signal, and interface design.