Voice Control game
ECE 153B Final Project Proposal
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Overview
We propose to make a voice volume controlled game which controls a ball on a LCD to jump across the leak on the ground. The device determine the volume of the sound to control how far the ball jump.

Peripherals
1. in-line microphone (on board)
2. LCD display
3. Push Button (on board)

Software Design
  The whole software is based on a while loop in which the system will detect for the user interrupts. The game will run on itself as soon as the program starts. The UI of the games is combined by a ball and a moving "ground" with leaks on it. The system should be able to recognize the position of the ball and be able to tell when it fails to land on the "ground". The program needs to move the ball as soon as it detect sound input from user. During the jumping animation, sound input should not affect the ball until next time it reaches ground. A state machine will be used to develop a starting menu and ending screen when the game is failed

Goals
1. A proper UI design for the game.
2. The code could recognize the different volume of the voice input.
3. The interrupt send when the voice received to control the ball.
4. When game is over, there has a push button to restart game。

Group Responsibilities
- Huasheng Ye force on the peripherals set up, and UI design and code for UI.
- Ziming Qi forces on the software of the ball game.
- Zhiyan Zhang forces on the algorithm to determine the volume of voice and the interrupts to trigger different stage of the game.

When we finish our own part, we will help others to finish theirs.