Soccer Penalty Game

ECE153B Final Project Proposal

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OVERVIEW

We propose to make a soccer penalty game with the LPCxpresso 4088 Microprocessor and an 8x8 LED Matrix Display. The game will use three buttons for the kicker to shoot the ball in 3 different directions. The goalkeeper will have a pseudorandom number generator to decide which of the 3 directions the goalkeeper will block.

PERIPHERALS

1. 8*8 LED Matrix

SOFTWARE DESIGN

First, a header file is needed to configure the LED matrix. GPIO interrupts are used to choose the 3 directions for the ball to be shot. Animations on the led matrix will be programmed. A random number generator is used choose the direction the goalkeeper will block. An if-else statement displays the result of the game.

GOALS

1. Ball can shoot in three different directions corresponding to 3 buttons.

2. Pseudorandom number generator determines which one of the three directions the goalkeeper will block for each kick

3. If the player wins, the LED matrix will show a "W". Otherwise, the matrix will show an "L'".

GROUP RESPONSIBILITIES

We will both be responsible for hardware setup and software development.