User Manual for “Simon” Game ECE 351
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This game is a game of memory. To win, the player must remember a sequence of ten numbers and enter them into the board. The numbers range from one to four, and correspond to the four pushbuttons, from left to right. The sequence begins with only one number. After this number is entered, another number is added onto the sequence, until all ten numbers have been successfully entered.

After loading the game onto the board, push switch one into the closed position, and back into the open position. This only needs to be done once after the sof file is loaded.

Now, all four digits should display the number eight. When in this state, the game is over, and waiting for a new game to begin. To begin a game push pushbutton one. (The left most pushbutton.)

The board will display one number, and then all of the digits will go blank. If the number is one, a one will be displayed on the first digit display. If the number is a two, a two will be displayed on the second digit display, and so on.

Push the corresponding pushbutton. As you push the pushbutton, the corresponding digit will light up. Digit one will light up as you are pushing the first pushbutton, digit two will light up as you are pushing the pushbutton, etc…

If you entered the number correctly, the right most LED bar will light up. This shows that you have entered one number successfully. To win the game, you must light up all ten LED bars.

After you enter the first number successfully, the same number will be displayed again, and then a second number will be displayed after it. A pause will occur between each number displayed, signified by the small decimal point on the digit display. The game will ignore any buttons pressed while the sequence is being displayed. Wait until all digits go blank before you begin entering the sequence to make sure the game recognizes the first digit you enter. Enter these two numbers correctly, and one more LED bar will light up. Continue until you have entered all ten numbers.

If you enter a number incorrectly, the game will end, and all digits will display eight again. The number of bars will still display how many numbers you entered successfully in the previous game. If all ten bars are lit up, you have won, otherwise you have lost. To begin another game, hit the first pushbutton again. Every time you begin a new game, a pseudo-random number is generated, so the sequence you must enter will change with each new game.