Introduction and Demo (Vitaliy)

Hardware (Sam)

Software (Noura)

Introduction (10 sec)

“We successfully designed and developed an Arduino-based accessory for a Ping Pong game using Arduino Hardware and Software. This LCD displays which side of the table the players are at and displays their scores and sets which each player may increase or decrease using these four button. The LED’s indicate who is serving and flash when there is a winner.”

Demo (60 sec, immediately after introduction)

“I will demonstrate how…”

1. Press button, show increased score on LCD.
2. Increase score of another player, show score increase of other player AND LED switched to indicate 2 serves occurred for that player.
3. Increase one players score until 11, show on display players switched sides, set increased, and LED shows winner is server, and score reset to 0.
4. Increase score to 10-10
5. Increase each side by one, show how serving changed from 2 to 1 for each player
6. Show that only a winner can occur by a 2 point margin
7. Increase one players score until 5 total sets, showing flashing LED indicates winner

I will explain what I’m going to do and show that the desired outcome occurred.

I will not explain how hardware or software works.

My above steps meet all the requirements for this assignment:

* The accessory shall display game scores and set points as in two separate rows using LCD monitor.
* The accessory has four buttons: two for each corner of the table. One button for advancing the set point by 1, and the other for decreasing it by 1.
* Player can increase his/her score by pressing the button in his/her corner.
* After two points the receiver shall become the server, and the server the receiver, and so on after every two points until the end of the game or the score is 10-all. However, if a score of 10-10 is reached in any set, then each server serves only one point and then the server is switched.

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* After each set, as the players switch side of the table, LCD monitor switches the scores and points as well.
* The player who first score 11 points is the winner, however a game must be won by at least a two-point margin.
* A match/game is played as 5 sets