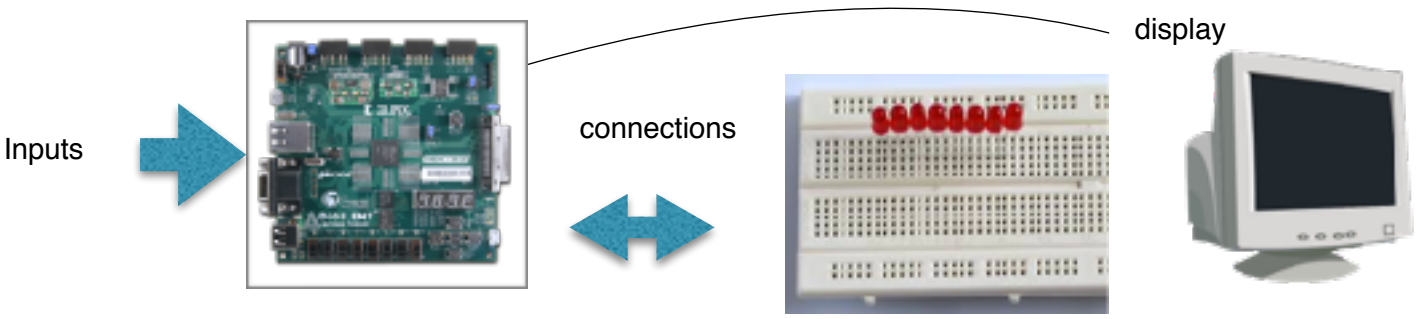
EE 240 FINAL PROJECT PROPOSAL
FPGA BASED TIMER GAME

Main Goals:

This is a timer game inspired by a design project on the website[1]. In the game there is a string of light sources -leds- which emit light sequentially. Along these leds there is one led with a different colour. The goal is to push the button at the right time, which means the moment when the led with the different colour emits light. You start with 3 lives. Each time you fail to push the button at the right time you lose a life. When your life count gets 0, the game is over. Each time you press the button at the right time your score goes one up(initial score 0), and each level gets faster with respect to the previous one. At any moment you can display your current score. When the game is over, if you have managed to overscore the high score, your score will be replaced as the high score and "high score" will be printed on the display. However, if you fail to achieve the highest score "lose" will be displayed on the screen. At every tenth level you gain an additional life. It is easy to play and entertaining with its increasing difficulty.

System Architecture:



Required Tools:

1) FPGA board
2) LEDs (9 red and 1 yellow)
3) Jumper Wires (Male-Male)
4) Breadboard
5) Computer and software
6) Display (VGA-compatible monitor)

Project Members:

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Reference:

[1] http://www.instructables.com/id/Nexys3-LED-Timer-Game/