PROJECT

Participant:

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CATCH THE LIGHT:

Initial Idea and Introduction:

This project is a simple PIC game where LEDs go on randomly one at a time. The objective is to “catch” the LED that’s on by pressing the corresponding button. For every catch, the score, displayed on a seven-segment display, is incremented.

Equipment’s:

- Clocks
- NOT Gate
- AND Gate
- LED’s
- Resisters
- Buttons
- Ground
- 5 Volt Vcc (Power)
- OR Gate
- 4-bit Binary Ripple Counter (74LS93)
- 7 Segment Display
- Wires

Procedure:

First of all, I have used two clocks set at different frequencies one at 250m and other at 500m and both clocks are connected with the internal circuit of Demultiplexer (74LS138). The Aim of that

multiplexer is to ON randomly one LED from four LED’s. On the other side Four Buttons are connected. One side of the buttons are connected with ground and other side is connected with 10K resistance and with 5 Volts Power. The output of four buttons and the output of four LED’s are connected with the internal circuit of 4-bit comparator. The comparator will give only ‘1’ when output of LED’s and Buttons are same. Then the output of internal circuit of 4-bit comparator is connected with the 4-bit binary ripple counter (74LS93) for increment in score from 0 to 9 and then another 4-bit binary ripple counter is used for increment to increase range from 9 to 99. The output of both two 4-bit binary ripple counters are connected with the two seven segment displayers to show the score of player from 0 to 99.