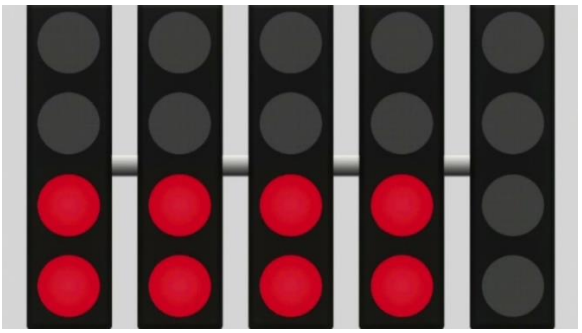
LED CATCHER

A GAME OF REFLEXES



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A game based on reflex action using LED's and logic gates

Components:

1. *555 Timer IC*
2. *LED*
3. *Pushbutton*
4. *Resistors (for timing and current limiting)*
5. *Capacitor*
6. *Power Supply (battery or external power source)*
7. *Breadboard or Perfboard*
8. *Wires (for connections)*

IDEA:

Idea is to make a fun to play game which tests a persons' reflex action by pressing a button as soon as possible when given a signal.

ABSTRACT

PROJECT DESCRIPTION:

In this project we aim to design a circuit in which we set up 3 columns of LED's. We generate light signals in those LED's randomly and keep three special LEDs marked.

The game is that when any of those special LED's light up we must press a corresponding push-button switch. This switch must be pressed within a very short period after the LED lights up.

If it is pressed within a limited time period then the game continues, else it stops.

MOTIVATION AND BACKROUND:

The idea of the game is to keep the player continuously engaged and test his/her reflex action till he/she makes a mistake.

This game can really help to sharpen the reflex action of a person. Another motivation for creating this game is keeping Formula-1 drivers and table tennis players in mind. They need to have extremely sharp reflexes to excel in their respective sport.

CONTRIBUTION:

1. **Aniket Maitra**

Came up with the idea of the game using LEDs and the idea of setting a time frame within which the user must press the button and overall design of the hardware model.

2. **Surti Divyanshu**
   Came up with the idea of terminating the game by lighting up all LEDs when the game gets over and hardware requirments for the project.

3. **Harshitha Gollapalli**
   Helped to fix errors in the brainstorming session and recommended better set of hardware components.

REFERENCES:

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