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# Open Led Light Race

**Shreyans Bhalgat[1], Tanishka Sutar[2], Vaishnavi Ghode[3], Prahlad Shanbhag[4]**
*[1,2,3,4]Computer Engineering, Pimpri Chinchwad Polytechnic, Maharashtra, India.*

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***Abstract:*** *Now-a-days there is so much work load because of lack of time due to the current pandemic. Now some work places have been started with full potential and the load of work has also been increased. So, we came up with a very unique refreshing and entertaining idea for the employees working whole day. We have made a led light race arcade game for the employees. It can be played while a short break or they can take a break for a change from sitting for a long time and focusing on the same work.*

***Keywords:*** *Stress, Arcade.*

## I. INTRODUCTION

Led light race is an arcade game which is played like a board game. It is played with or more players. It can be played while a short break or they can take a break for a change from sitting for a long time and focusing on the same work. Now some work places have been started with full potential and the load of work has also been increased. So, we came up with a very unique refreshing and entertaining idea for the employees working whole day.

## II. RELATED WORK

Led light race is an arcade game which is played like a board game. It is played with or more players. It is consist of electrical component which are programmed to work as we want them to. This game has two switches which is called controller. Controller is given to two players who are playing the game. They have to use the controller as a joystick to play the game. Basically, the controller is a switch. The theme of the game is led lights racing with each other. When the controller is pressed then the game gets started. As the controller is pressed the led light starts and the lights start chasing each other. The number of times the controller has been pressed, light moves in the led strip pixel by pixel.

A. *Design Considerations:*

There are many features added in this led race Project, such as:

- Long led light strip
- Open view of the game

B. *Description of the Proposed Algorithm:*

Led light race is an arcade game which is played like a board game. It is played with or more players. It is consists of electrical component which are programmed to work as we want them to. This game has two switches which is called controller. Controller is given to two players who are playing the game. They have to use the controller as a joystick to play the game. Basically, the controller is a switch. The theme of the game is led lights racing with each other. When the controller is pressed then the game gets started. As the controller is pressed the led light starts and the lights start chasing each other.

## III. LITERATURE SURVEY

As we know now-a-days there are many problems in each and everyone's life especially in the employee's life. They work day and night for food, daily expenses, etc. From this run of life they don't have time, money for their enjoyment or entertainment. As per the science, our mind needs some rest, entertainment, joy to stay focused on the work we are doing. So we have made this project by keeping this problem in the mind and came up with the led light race solution. We have made a survey in industries about there problem, and we came up with this problem and decided to make this led light race project and supply it to the industries. Our main aim of this project was for industrial workers who wants to feel relaxed during their brake time.

## IV. FUTURE PROSPECTIVE

- It can be developed with more innovative features
- With this model, a app can also be made through which we can play online using our mobile devices
- Can be designed according to the modern house designs, so it can be kept in homes too.
- Can be used in railway system for demo of railway tracks.

## V. SCOPE

Currently this game is available in the arcade café as it needs a specific large amount of area to keep the game.
Scope of the project is: -

- For entertainment purpose of the workers, labours.
- Can be used to do business.

- To make workers feel relax during their break.

## VI. FEATURES OF LED LIGHT RACE

There are many new features available in led light race: -

- Multiplayer function
- Multiple light choosing option
- Compact size
- Adjustable structure which can be kept anywhere
- Everything physical. No app or software is needed to play
- Minimalist design
- Easy to adapt and play
- Led light with more energy-efficient

## VII. PROBLEM STATEMENT

We all have been in the arcade game center once and played arcade games there. We have to pay the fees and play the game. The fees would be very high and the playing time is very less. But, the stress relief after playing that game was on the another level.To solve the price problem, travel, and time we the students of Pimpri Chinchwad polytechnic college has overcome with this problem by making a arcade game. LED LIGHT RACE.

## VIII. HARDWARE REQUIREMENT

- Laptop
- RAM: 4GB or more
- Hard disk: 256GB or more
- Extension Board
- Jump wires
- Led light strip
- Breadboard
- Arduino nano

## IX. SOFTWARE REQUIREMENTS AND SPECIFICATION

Operating System

- Windows

Software Requirement

- Arduino IDE
- OneNote

Technology:

- Arduino language (handling)
- C programming language

## X. CONCLUSION

Led light race is very useful for the people who works daily without taking any break in the routine.

- Limitations:-

1. Special packaging to carry the model from one place to another
2. Needs power current
3. Needs more than one player(person) to play

## References


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