



**MARA UNIVERSITY OF
TECHNOLOGY
BUKIT MERTAJAM BRANCH**

**FINAL YEAR PROJECT REPORT
(KEU 380)**

**TITLE OF PROJECT:
BI-COLOR LED SEQUENTIAL
RUNNING LIGHT**

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BI- COLOUR LED SEQUENTIAL RUNNING LIGHT

ABSTRACT

The main of this project is to build Bi-Colour LED Sequential Running Light. The main components that control for LED Sequential Running Light are Timer (IC 555) and Decade Counter (IC CD 4017).

The Timer (IC 555) is set to operate in astable mode to provide low frequency clock pulse to the sequential Decade Counter (IC CD 4017). The output of a Decade Counter (IC CD 4017) is changed in a given sequence due to the output pulses of the Timer (IC 555).

The circuit also designed by Light Emitting Diode, commonly LED for display purposes. LED is a popular electronic light source based on Electro luminescence. Different colors of LED are used to show sequential running light that run in directions opposite to each other.

The system is mainly for advertising purposes. For example, it can be connected to the speaker and the LED will light up according to the sound level (Music Box). It is also widely used to decorate signboards at restaurants and shops to attract the attention of their customers.

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Chapter 1

1.1 INTRODUCTION

This project outlines the design of an Electronic-Digital system, which operates by implementing basic principle of digital and operation. This system was constructed with the combination of a Timer (IC 555) to operates in astable mode to provide low frequency clock pulse, Decade Counter (IC CD4017) is changed in a given sequence due to the output pulse of the Timer (IC555) and Light Emitting Diode (LED) is used for display purposes. Different colours of LED are used to show sequential running light that run in directions opposite to each other.

Outlining all the requirements as formalized by the Department of Electronic and Electrical Engineering, MARA University of Technology, hereby we produce our simple with state of the art design that we named as Bi-Colour LED Sequential Running Light.

We are hoping that this project will fulfill all the desired requirements for our final year project and hope that it will also increase our engineering knowledge.

This report will take us to the understanding of the whole system of our project design ensuring with the basic knowledge about its operations and background system.