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FINAL REPORT OF DIPLOMA PROJECT

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GAME ROLLER

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ABSTRACT

We use the digital and analog concept in our application. The components involved such as timer, decoder, demultiplexer, Light Emitter Diode (LED) and resistors. The timer is used to generate the clock pulse, the counter acts as a counting device. While demultiplexer or 1 to 16 decoder will trigger the LED to lit. Switching system is used to control the circuit. When the switch is closed, only LED remains on. Only one current limiting resistor is used for all LEDs, since only one is on at any time.

All these components are cascaded on project circuit board (PCB). Using +5v supply, this circuit is tested. The trouble shooting is done in order to overcome the problems. The objective of the circuit design is met when one of the LEDs is on at any time once the switch is pressed.

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CONTENTS

1.0 INTRODUCTION	4
2.0 INTEGRATED CIRCUIT	5
3.0 555 IC's TIMER	6
3.1 ASTABLE OPERATION OF THE 555 IC TIMER	7
3.2 THE OPERATION AND FUNTION OF THE 555 PINS	8
3.3 THE OPERATION OF THE 555CONNECTION IN THE ASTABLE MODE	10
4.0 RIPPLE COUNTER INTEGRETAD CIRCUIT	11
5.0 HEXADECIMAL 1 – TO – 16 DECODER IC	13
6.0 HOW WE DO OUR PROJECT (TROUBLE SHOOTING)	15
7.0 GANT CHART	17
8.0 CIRCUIT MAKER DIAGRAM	21
9.0 CONCLUSION	22
10.0 APPENDIX	23

1.0 INTRODUCTION

The game roller or chase circuit operation is describing the function of each ICs in detail. The system design shows the connection of the ICs and how it's design to achieve the objective of the project.

We use the circuit maker software in order to simulate the circuit to determine weather it works or not. The simulation result is used to implement the circuit on the PCB.

The planning of the overall project is represented using the Gantt Chart. The next phase involves the implementation of the circuit. Finally the circuit is tested and the troubleshooting phase is undertaken to make sure it works as expected.