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**FINAL REPORT OF DIPLOMA PROJECT**

# **CRAPS GAMES**

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## ABSTRACT

Craps games are one of the projects that we are able to design and make it such as the electronic games. Here we suppose to do list up what we need about these games. This game function is so easy. Actually this electronic games use 12 LED that the LED is such as the output for this games function. These Craps games only use battery supply about 9V. For the circuit it just uses two digital IC 4017 and 4093. This game circuit is a simple integrated circuit. This circuit can be used to provide LED output such as a light in the parallel array. For the children these games can be one interactive game. It also can give entertainment to them. For the children, this games very easy to handle. It because, we designed this games with two switches.

This project consists of several devices such as resistors, capacitors, two-decade counters, switches and a display LED parallel with a 12 segment LED display. Pressing switches 1 and 2 should start the operation of circuit game. These switches are to connecting with two-decade counter. On the other hand, lead 15 operates as a reset. A 9 V battery power supplies to the lead 16 in the both Digital's IC. To start with fresh game, first we supplied 9V and then press either switches 1 or 2. After that, the LED shows the display. If want to start it one again, press reset at the lead 15.

The main objective of this circuit game is to analyze the operation of decade counter, quad two input Schmitt trigger and twelve LED displays.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background

As a beginning, we're introducing electronic circuit devices. Which functions as an electric games circuit. This electronic circuit is content several stages, which is according to their functions. The purpose of beginning this project is because to makes us really understand the concept of functions of the electronic circuit. From what we realize that now a days a lot of system in our life style is using electronics digital devices, where the electronic devices is using types of component that maybe we don't know the real operation of each component. Therefore, from this little project we can make a small research about the operation of the electronics component. As an example, we might to think that how is the operation of small "Craps Games" that our children play as their game. For those reasons, we want to take an opportunity to make electronics fun/games circuits to get more idea on how is the operation the components. In this circuit game, we used 3 ICs, it contents a 2 type digital IC, such as two CD4017BC (Decade counter/divider with 10 decoded outputs) and CD4093BC (Quad 2 input NAND Schmitt trigger). A Twelve LED display follows with the resistor, switches and capacitors.

Let consider the overall operation of this circuit electronic LED game. This game is simple. As started above, our circuit function is to display led output that on one by one and changing each side automatically with direction of the switches was pressed. For the fresh move, press any of the two switches, an example switches S1 OR S2 On pressing switches S1 or S2, these counters are cleared to their zero count by a logical"1" on their