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FINAL REPORT OF DIPLOMA PROJECT

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OBJECT COUNTER

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KEU 380 OBJECT COUNTER

ABSTRACT

An Object Counter is present a combination between CMOS, decoder and counter integrated circuit (ICs) presented by CD4093 quad 2-input NAND Schmitt trigger, CD4511 BCD to seven segment latch decoder-driver and CD4518 dual BCD up counter. The circuit is use for counting any object and any object and can count between 1 to 9999. For the same additional circuit, we can have audio or visual indicator after a specified number of counting that we can set between the range.

In this prototype, the distance between light source and the phototransistor was about 10cm only. The circuit has an advantages of using very low power consumption, wide supply voltage range, good noise immunity and has high package density. The project can be an accessory at any place because the circuit small value of current and light weight.

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INTRODUCTION

This Object Counter is a combination between CMOS and decoder integrated circuit (ICs), which is presented by CD 4093 quad 2-input NAND Schmitt trigger, CD 4511 BCD to seven segment latch decoder-driver and CD 4518 dual BCD up counter. May be it looks complex and needs a lot of concentration to do successfully. This project is all about precautions using a component and circuit.

Again, this project can be accessory at any places because the circuit using small value of current and light night. The circuit also can be used for counting any object either large or small and anything else that we can count, its is depends on the level creativity of the owner. Otherwise, you should focus on basic operation of the circuit in order to create another kind of application in the same of operation.