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DIPLOMA PROJECT REPORT

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TITLE:
OBJECT COUNTER

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ABSTRACT

Here an “Object Counter” using CMOS IC’s is present. The object counter is a combination between CMOS, decoder and counter integrated circuit (IC’s) which is presented by CD4093, CD4511 and CD4518. The circuit is to be use for counting any object either larger or small and anything else that we can count, it is depends on the level creativity of the owner. The counting circuit can be used for many applications. Originally this circuit was design to count of small object and step counting automatically after a specified number of the object. The circuit can also be used to counts tablets or chocolates.

With suitable modification in the input circuit, the same circuit can be used for counting object also. For big objects, the focusing of the light source on the base of T1 play an important role. For this purpose, a collimeter that consists of some lens arrangement to get a fine ray of light can be used. If this is used in the input, the instrument can be used to count the number of vehicle passing or a person visiting a place. The circuit can count between 1 to 9999 and with some 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 advantage 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 places because the circuit small value of current and light weight. The project is all about precautions using the component and circuit. A lot of concentration need to do it successfully.

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INTRODUCTION

This *Object Counter* is a combination between Cmos, counter and decoder integrated circuit (IC's), which is presented by CD 4093, CD 4511 and CD 4518. Maybe 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 an accessory at any places because the circuit using small value of current and light weight. The circuit also can be used for counting any object either large or small and anything else that we can count, it 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.