FACULTY OF ELECTRICAL ENGINEERING
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FINAL REPORT OF DIPLOMA PROJECT

SMART PRODUCT COUNTER

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ABSTRACT

This is one of those useful little projects intended for use in our life to make it easier for human beings. We called our project 'SMART PRODUCT COUNTER'. This project is used to count goods automatically. The purpose of this project is to develop our skills in research, design and creating a useful project for human things.

In this project we are using LDR (light detected resistor) circuit as a sensor to sense goods and the counter circuit will count the goods. We also were using a timer circuit and motor circuit for our project. The main purpose of our project is to count goods by automatically.

For the first part, the goods will place on the conveyer belt. To move the conveyer belt a start button has been put at the starting point of the conveyer belt. Once the start button is push it will 'on' the timer circuit to count for a certain period of time. This timer circuit is connected to motor to pull the conveyer belt.

The second part, the sensor is place at the end of the conveyer belt. This sensor circuit is used to sense any goods past through a dark box. This sensor circuit is connected to the counter circuit to count the goods as one goods.

ACKNOWLEDGEMENT

Alhamdulillah, Solawat and Salam to the greatest Prophet Muhammad SAW and to all his generation and also to his good companies.

We wish to thanks our supervisor En. Zakaria Hj. Hussain for his commitment and hard work to ensure our project is successfully done. We also want to thanks our parents and brother for their support and theirs ideas especially En. Khairul Hisham Samsudin. They got numerous reviews, kept this project on track and help in many ways. We really appreciate their inputs.

We are greatly in debt to En. Zakaria Hj. Hussain for taking the pain of checking and correcting the entire our project.

The purpose of this project is to develop our skills in solving any problem occurs and try to solve the problem in the easier ways. It is also the first step to become an engineer where we have to build ourselves with skills in research, design and build the project.

Thanks again to our grateful Allah SWT, to our beloved supervisor and friends for their inputs and their commitment. Thanks again and may Allah SWT bless of all you.
AMIN.

CONTENTS

INTRODUCTIONS

Nowadays, more technology has growth in our country. There for we had decided to design a new project by combining a few simple circuits but the result from our thesis and project will produce a high quality product. It has been used in many supermarkets or others shopping complex. We just upgrade the system to be an easier ways to handle and economical that can be used just not in big supermarket but in a small shop.

Our purpose designing this project is to develop our skills in finding problems, try to solve it and make it to be an easier ways and make it economical an easy to handle. It also easy for maintenance. We will know how to analyze the circuit, the function of all devices that we used, to think about the possibility of problem during doing the circuit.

SMART PRODUCT COUNTER can easier for counting total items when we buy in supermarket. This project also can use in factory, when we count the total product for production. For application, from the project or system we can look many machine or things are using this concept. As count thing after we buying and other application.

In future may be we can upgrade our project by adding a sensor for detects information that had been labeled by code bar at the product. We also noticed that this project would become a good project by combining robot arm to move product to the conveyer belt.