UNIVERSITI TEKNOLOGI MARA KAMPUS BUKIT MERTAJAM 2003

FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



WASHING READY INDICATOR

MOHD NOOR AZMAN SULAIMAN IKRAM HAKIMMI ZAINUL ABIDIN

ABSTRACT

The Washing Ready Indicator work by responding to the sound and/or vibration that occur while washing machine motor is operating. When correctly adjusted, other source of sound have only minimal effect unless there are particularly loud. Even they do have some temporary effects, they should not prevent the circuit from given the proper warning.

The sensor consist of a electrets microphone inset (that is, the working part without external case). While the motor is turning, this provide an electrical signal which is passed to the main unit.

While the machine vibrations continue, the warning does not sound. When it stops, the warning continues to be held off for a further preset time and after that the buzzer sounds.

UNIVERSITI TEKNOLOGI MARA

ACKNOWLEDGEMENT

With the name of Allah s wit the most gracious and merciful. Thankful to the all mighty Allah s wit for giving us the permission to go through and finally finish this project with successfully. If there is any person that we must give our deepest sense of gratitude in completing this project, it would be our supervisor Tuan Haji Rahim Bin Ahmad for his never ending patience dealing with every single problem had by us and her generosity for sacrificing her precious time in order to give us guidance and advice. We would also want to express our deepest gratitude to our parent for the essentially financial support. Not forget to all of our friends whose has been so kind for giving us a helping hand once in a time. Finally, we would like to show our gratitude once again to all who had been involve in making this project a success by saying thank you very much to all of you from the bottom of my heart and may god bless in you.

Wassalam

CONTENTS

1. Title	I
2. Abstract	2
3. Acknowledgements	3
4. Contents	4
 5. Chapter 1 Objective Introduction List Of Components Cost Of Components 	6 7 9 11
 6. Chapter 2 (Theoretical Background) Operation Of The Circuit Circuit Diagram Block Diagram Integrated Circuit LM 7555 Timer Resistor 	13 14 25 26 27 30
 7. Chapter 3 (Practical) Construction Testing Boxing Up Sitting The Unit Final Test 	32 33 34 35 36 37
 8. Chapter 4 (System Consideration) Expectation And Consideration Circuit Simulation 	38 39 40
9. Conclusion	41
 10. Gantt Chart Planning Actual 11. References 	42 44 46
12. Appendixes	47

OBJECTIVE

This project is one of the important elements for the diploma course. From this project, we have two main objectives:

Specific Objective

- 1. We can know how to analyze the circuit operation.
- 2. We can know the function off all devices that we used.
- 3. We can settle the problem when the circuit have a troubleshooting.
- 4. To improve our knowledge about electronics circuit.

Other Objective

- 1. To apply whatever we had learnt during our study in diploma.
- 2. Able to handle project that is given.
- 3. To get experience before involving in working sector.