



**FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA TERENGGANU**

FINAL REPORT OF DIPLOMA PROJECT

4 IN 1 AUTOMATIC HANDWASH

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**MUHAMMAD ASHRI BIN AB. AZIZ
NURHELYNA BINTI ISNANTO
NOOR HIDAYAH BINTI MOHD AFFENDI**

SUPERVISOR'S NAME:

MISS SUZIANA BINTI OMAR

DECLARATION

It is hereby declared that all the material in this thesis are the result of my own work and all the materials which are not the result of my own have been clearly acknowledge in this thesis.

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(MUHAMMAD ASHRI BIN AB AZIZ)

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(NURHEL YNA BINTI ISNANTO)

.....

(NOOR HIDAYAH BINTI MOHD AFFENDI)

ACKNOWLEDGEMENT

Bissmillahirrahmanirrahim,

Firstly, we would like to say Alhamdulillah. Thanks to Allah SWT, whom with His willing giving us the opportunity to complete this Final Year Project which is title 4 in 1 Automatic Handwash. This final year project report was prepared for Faculty of Electrical Engineering, University Technology Mara Technology Mara Terengganu (UiTMT), basically for student in final year to complete the undergraduate program that leads to the Diploma of Electrical Engineering in Instrumentation.

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ABSTRACT

Title of this project called '4 in 1 Automatic Handwash'. The purpose of this project is to help people to get rid of illness and germs infection. This project is using Peripheral Integrated Circuit (PIC16F877A and L293D). This project is obtained from combining two circuits which is from handwasher circuit and hand dryer circuit. The IR sensor is used as a sensor for this project. The software used for this project is ISIS which is used for simulation circuit, MikroC, used for PIC programming and PCB Wizard, used to get the PCB layout. This handwash will functioned automatically by sequence of flow. Firstly, whenever the IR sensor detect a hand below the tap, it will switch ON the motor of water, soap, hand dryer and hand sanitizer in sequence that are set by the program in the PIC. This will only work when user keeps putting their hand below the tap. This is because, when user furthers their hand from the tap, the IR sensor cannot detect the hand and this will automatically reset the whole process. This project assures their user to get a clean hand whenever they used this hand washer. This is because this handwasher provide all the needs for clean hand in one place.

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