FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA TERENGGANU

FINAL REPORT OF DIPLOMA PROJECT

AUTOMATIC REGULATED TEMPERATURE WAX BATH

MARCH 2014

MOHAMMAD FADHIL BIN MOHAMMAD LIZA (2011862014)
MUHAMMAD IRFAN BIN MUHAMMAD NOR (2011625472)
MUHAMMAD FAIZ BIN MUSA (2011685238)

MADAM SITI AISHAH BINTI CHE KAR

ACKNOWLEDGEMENT

Alhamdulillah for give us strength and enough time to overcome the problem that we faced during this final year project. We would like to say a big thanks to those people that involved in helping us to complete this project until finish. First and foremost, I would like to extent my profound sense of gratitude and deepest appreciation to my supervisor Madam Siti Aishah Che Kar for her guidance, advice, encouragement, support and the most importantly her patience.

Most importantly, we would like to dedicate our grateful and thanks to our beloved parents that contribute to the success of this project. They had gives us their moral support to help us accomplish this project.

Finally, thanks to our friends who is willing to help us during the process to finish this project and their support. By all these people's help, we finally have completed our project successfully. Lastly, we would like to say thousand words of thanks for all those people that involves in completing this project.

ABSTRACT

Paraffin wax bath is used to soothe chronic arthritis joint pain, to relax stiff muscles, and also to increase range of motion. The purpose to choose this project because this project will be upgrade the equipment that already have from taking wax temperature manually to the automatically taking wax temperature. This way can be increase the safety to user to use it from danger when doing checking wax temperature. So, this project use temperature sensor, which is LM 35 to sense the presence of the temperature of the wax. When the sensor detects the temperature above the desired temperature, the heater will off automatically heat the water and the paraffin wax. If the temperature below desired temperature, the heater will automatically on.

This project uses many components, electronic components such as LCDs, PIC 16F876A, heater, relays, voltage regulator circuit. LCD function is to display the temperature reading so that users read the temperature of the wax quickly. Thus, this project is improvement version uses a sensor to measure the temperature of the wax is automatically and can save time.

TABLE OF CONTENTS