

**POLITEKNIK SULTAN SALAHUDDIN
ABDUL AZIZ SHAH**

JABATAN KEJURUTERAAN ELEKTRIK

PROJECT REPORT

AUTOMATIC HAND THERAPY

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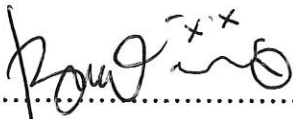


JULY 2007

TESTIMONIAL

We are hereby acknowledge this report is our own report, only the part we have attached are from the source that we have apparent.

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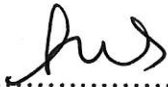
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DEDICATION

We would like to dedicate this project to our families, lectures, technicians and friends whom has been giving us full support morally and physically when we are involved in this project.

Not to forget all team members for their god commitment to make this project successful.



ACKNOWLEDGEMENT

This project cannot be done without guideline from lecturer to find more information about our project. We would like to express our sincere gratitude to our project lecturer Madam Wee Soo Lee, Puan Fariza, Miss Subashnee for their generous supervision, guidance, kindness and invaluable assistance during the course of this project and whose have been helping us finished our project for Semester 5 and semester 6.

We earnest appreciation to electric department, Sultan Salahuddin Abdul Aziz Shah Polytechnic, who have given us the chance to implement this project.

Last but not least, we would like to extend our special thanks to our classmate and friends who have been kindly helping us in many methods such as giving ideas, draw pictures as our suggest product and finding some information on the internet.

All the help we get will be so meaningful for us.

Thank you.

APPRECIATION

First, we would like to thank grateful to Almighty Allah S. W. T with permission our project completed successful. Secondly, we would like to thank to our project advisor Madam Wee Soo Lee, Puan Fariza, Miss Subasnee for their kindness of helping and giving advice to us to finish our project Automatic Hand Therapy

Besides that, we were also dedicating our appreciation to our friends, which have been giving us a full moral support to make sure that our project could be finished on time and also have been providing a lot of guidance for us especially during the process of creating a suitable model for our project.

To our beloved parents, thank you very much for giving us an uncountable support and financial even though you have been very tired of working all days. Thank you very much.

Finally yet importantly, thank once again to all of those who have been working very hard for all days to make sure that our Automatic Hand Therapy have been finished successfully.

Thank you very much.

OBJECTIVE

1. Project module is one of the subject that obligatory taken for all student at Polytechnic to achieve a diploma, so we must learn, think and try to solve any problem that overcome.
2. This will give an exposure and a big knowledge to student about computer, electronic component and all electronic devices.
3. This knowledge is useful to all students so that will give an experience before a student goes to working life.
4. Make student raises creativity ability and innovative they are in the technique to design electronic circuit.
5. Study the process of developed a PCB, doing etching, drilling and soldering.
6. To learn and give skill for us about methods how to use a hand equipment such as machine drill, the equipment welds and all electronic devices.
7. Got a practical experience on the method and right way to make project.
8. Got further explanation about how to manage and how to design a PCB.
9. Got an exposure how to repair circuit by using the method arrangement with equipment assistant like multimeter.
10. Express the deep interest feeling in student's self towards field of this engineering. So student can evaluate himself through its capability in preparing this project where it can be performed.

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Chapter 1

PROGRESS REPORT FROM JANUARY 2007 UNTIL NOVEMBER 2007

January 2007 to June 2008

Month	Planning
JANUARY 2007	<input type="checkbox"/> Search for ideas for our project <input type="checkbox"/> Understand the concept and techniques to be applied in the project application <input type="checkbox"/> Discuss the project which we are going to do <input type="checkbox"/> Research whether our product are already in market

FEBRUARY 2007	<input type="checkbox"/> Entitled our project <input type="checkbox"/> Research the most suitable circuit to our project <input type="checkbox"/> Clarity our circuit and the component for our project <input type="checkbox"/> Sketch out the figure of our project
MARCH 2007	<input type="checkbox"/> Research hand therapy <input type="checkbox"/> Get more information hand therapy for patient <input type="checkbox"/> Clarity the budget
APRIL 2007	<input type="checkbox"/> Research about the circuit <input type="checkbox"/> Confirm the circuit and get more information <input type="checkbox"/> Clarity the budget of all component in the circuit
MAY 2007	<input type="checkbox"/> Survey the components <input type="checkbox"/> Buy the part of components <input type="checkbox"/> Presentation the test tube rotator (PowerPoint)
JUNE 2007	<input type="checkbox"/> Submit for full report write-up

Table 1.1 : Progress Report From July 2006 To December 2006

July 2007 to November 2007

JULY 2007	<input type="checkbox"/> Introduction the project <input type="checkbox"/> Find out the faulty component at the circuit
AUGUST 2007	<input type="checkbox"/> Sketch schematic diagram and PCB circuit <input type="checkbox"/> Soldering metal part together <input type="checkbox"/> Troubleshooter <input type="checkbox"/> Test the circuit for functioning
SEPTEMBER 2007	<input type="checkbox"/> Finding the source for report project
OKTOBER 2007	<input type="checkbox"/> Finished out the power supply circuit, motor timer circuit, counter-up circuit and motor speed control circuit <input type="checkbox"/> Connected between power supply, motor timer circuit, counter-up circuit and motor speed control circuit
NOVEMBER 2007	<input type="checkbox"/> Complete all circuit connection and the product will be function <input type="checkbox"/> Final presentation <input type="checkbox"/> Submit report project

Table 1.2 : Progress Report From January 2007 To June 2007

1.1 PROJECT METHODOLOGY

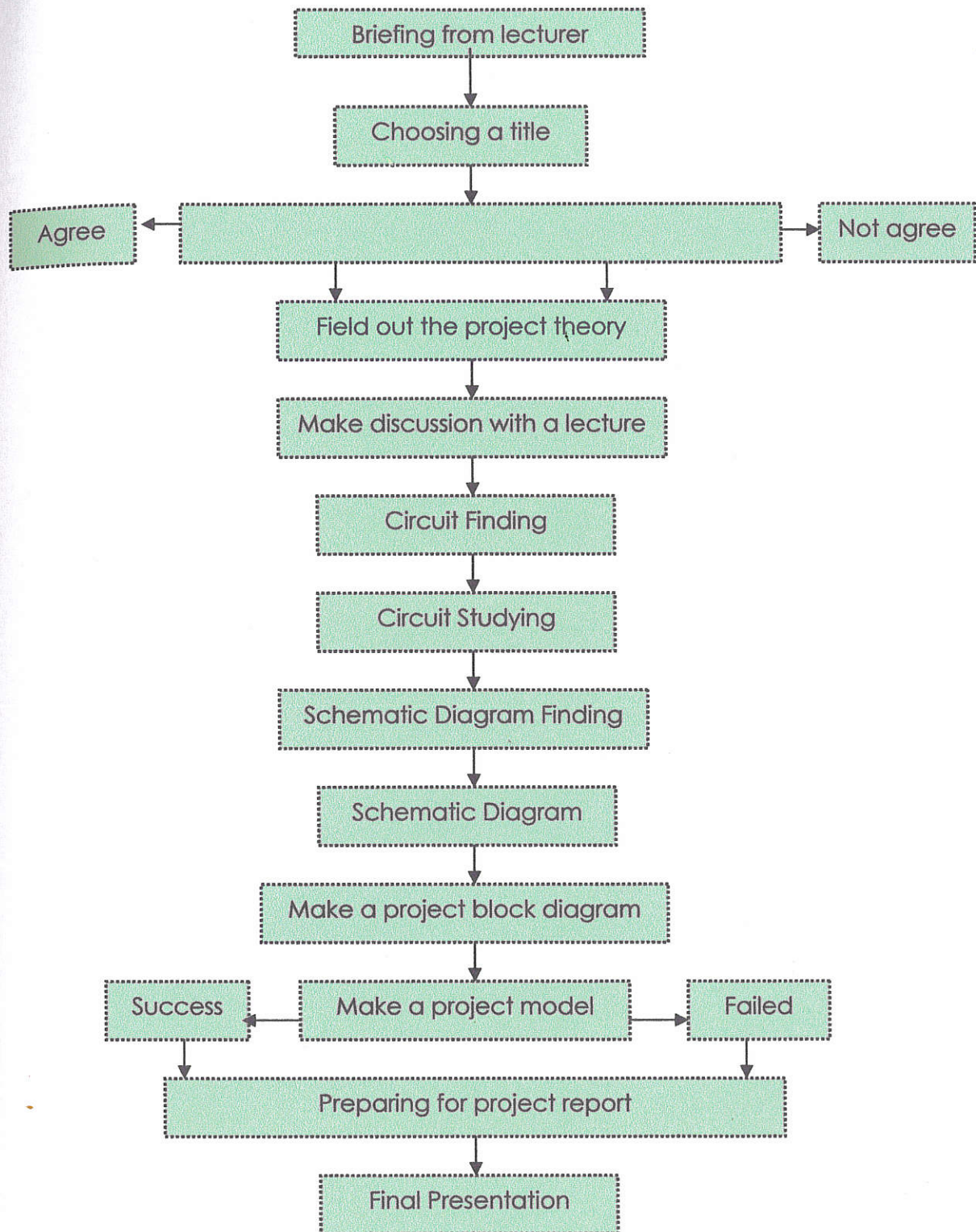


Figure 1.1: Project Methodology

Chapter 2

BIO-INTRODUCTION

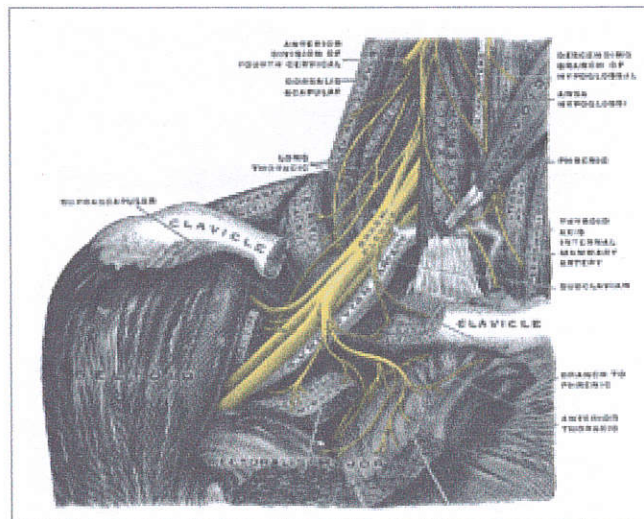


Figure 2.1: plexus brachialis

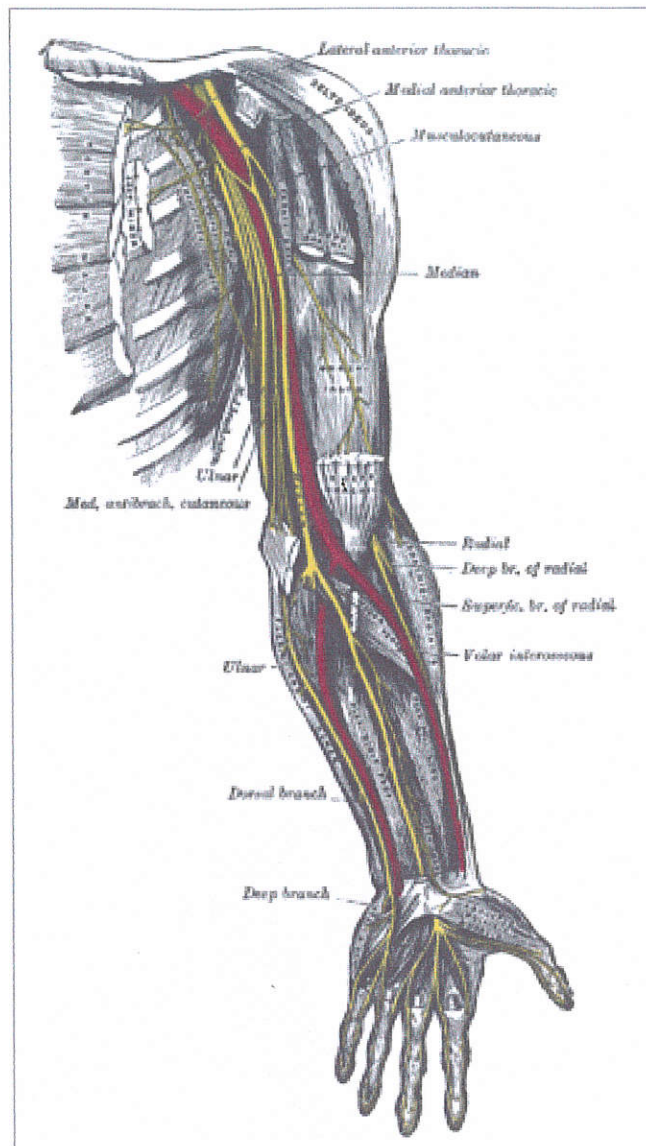


Figure 2.2:Nervus thoracicus longus