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FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



STEPPER MOTOR CONTROLLER
USING PIC 'MOBILE ROBOT'

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ABSTRACTS

In this undergraduate project, the mobile robot system needs to move in the desired movement that programmed in the PIC. However, there are a lot of emphases to be put to make the robot intelligent in making its movement. This project course from the design of programmed system until the design of hardware system. This project involves building and simple wheeled mobile robot capable of operating in normal surface. It will have mechanism which will enable it to do so, thus making it a suitable mobile robot for indoor task.

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CHAPTER 1

INTRODUCTION

1.1 Definition of Robot

A robot, as defined by the robot Institute of America is : “A robot is a reprogrammable multi-functional manipulator designed to move materials, parts, tools or specialized devices, through variable programmed motions for the performance of a variety of tasks.” In short, a robot is a programmable general – purpose machine with external sensor that can perform various assembly tasks. With this definition, a robot must possess intelligence, which is normally due to computer algorithms associated with its control and sensing system. Mostly, it is very practical to use robot to perform the task at the place where the use the of human is impracticable.

The word of robot has actually come into English Language since 1923. The term of robot is derived from the Czech word ‘robota’ meaning compulsory labor and from ‘robotnik’ meaning ‘seft’. In fact, the word of robotics was actually discovered by the master science fiction writer, named Isaac Asimoc who had develop his famous “three Laws of Robotics” that still being used until now. These law are as listed below:

1. A robot may not injured human being, or through inaction allows a human being to came to harm.
2. A robot must obey the orders given to it by the human beings except where those orders would violate the first law.
3. A robot must protect its own existence, except where that would violate the first and second law.