SYSTEMATIC WATER SPRINKLER

MUHAMMAD AMIRUL BIN BASARUDDIN
HAFIZUL RAKIFF BIN ZULKAFLI

A project report submitted to the Faculty of Electrical Engineering,
Universiti Teknologi MARA in partial fulfillment of the requirements for the award
of Diploma in Electrical Engineering.

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

SEPTEMBER 2015

ACKNOWLEDGEMENT

First and for most, we offer sincerest thanks to our supervisor Miss Mastura. She is very helpful and kind person because she help us by thoroughly check the solution and answer for all problems that we face in this final year project. Besides, she showing her kindness support, concern for the guidance as we undertake this project.

In addition, we also wanted thanks to our coordinator, Sir Rozi for accompanying instructor's and solution manual. Next, we also take opportunity to record our appreciation to University Teknologi Mara (Uitm) Pasir Gudang for providing all the equipment for us to complete our research for final year project 1 and 2.

We also like to thank the lecturers and seniors that involve and willing to provide tutoring as we implement this project.

ABSTRACT

The systematic water sprinkler is the first project for our final year project. This project actually chosen from us and guidance from our supervisor discussed about project idea. The main purpose of creating this water sprinkler is to design watering plant using Arduino and detect soil moisture using moisture sensor. Besides, another purpose is to display the feedback at the LCD and switch the valve and water the soil if the soil is dry in automatically. This project built to ease people that do not have enough time to water the plant. It only needed to be placed in any desired place so that the valve can automatically watering the plant. This project only water the plant that do not have enough humidity of soil.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND STUDY

Water is the most important things to living things. Living things such as human, plant and animal need water to live and survive in the world. We cannot live on air and sunshine alone. The human body needs food and water to survive. A human can go for more than three weeks without food but water is a different story. At least 60% of the adult body is made of it and every living cell in the body needs it to keep functioning. Water acts as a lubricant for our joints, regulates our body temperature through sweating and respiration, and helps to flush waste. The maximum time an individual can go without water seem to be a week.

As a living things, plants also need water to live. Plants cannot live without water, but how often they need to receive it to stay alive varies tremendously. Factors that influence a plant's water needs include the plant's age, rate of growth, the kind of plant, how well established it is, soil type and whether it's in a container or in the ground. Environmental conditions such as temperature and relative humidity are also important.