



**SOIL MOISTURE SENSOR**

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TA  
710  
.M84  
2015

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**MARCH 2015**

WATERING SYSTEM

ACKNOWLEDGEMENTS

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## ACKNOWLEDGEMENTS

First of all, we want showed our highest gratitude to our supervisor Mrs. Fazlinashatul Suhaidah Bte Zahid, who helps us a lot to successfully completing our reports and her hints for our reports too. She also gives details guidance and briefs us every time we came to see her.

Plus, we also want to thank to the authorities and related staff of University Technology of MARA (UiTM Pasir Gudang) because shows us to do it and give important tutorials and provide us the equipment of requirements to complete our final year projects.

On top of that, not to be forgotten also to our colleagues and lectures because sincerely willing to spend some time to guide us for this project. Lastly, I offer my regards and blessings to my colleagues and all of those who supported me in any respect during the completion of the project.

## **ABSTRACT**

The soil moisture detector is designed to see the effect of the moisture sensor and the water level sensor in this experiment to ensure that the project is perform very well. The aim of this project is to see the project is working as we expected. We are using the Arduino as our primary system in this project. There are LCD displays that will show the reading of the moisture sensor and the water sensor respectively with each one has it.

The calculated parameters have been optimized using Computer Simulation Technology software such as Classic Arduino IDE and Proteus 8. The design prototype has been fabricated and the output was measured. The results that we get is make sense and shown in the result's part. The result that we obtained is somehow we expected.

It is observed that the moisture sensor is improving the project's efficiency of this soul moisture detector.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of Study

Plants seem to have something in common with pets. They are usually acquired or given with the best intentions, but not everybody seems to be able to look after them properly. Of course we do not expect everybody to have green fingers, but when plants are not watered enough they simply die. In any case, too much neglect usually has fatal consequences. Cactuses seem to survive such a careless treatment the longest and we have to admit that these are the only plants that manage to survive at our offices.

All it needs is for regular checks to feel if the soil in the pot has become too dry. Some people just don't seem to have the right fingers for this task. A little electronics can be used to rid us of this problem forever.

The circuit described here might be very simple, but it's a very useful soil moisture tester. Two electrodes are planting in the soil and the moisture level is shown on an LED display. The LEDs have been arranged into three colours: green LEDs indicate that the soil is moist, yellow LEDs indicate that excessive moist soil and red LEDs warn that the soil is dry.