

UNIVERSITI TEKNOLOGI MARA

**AUTOMATED CLOTHES DRYING
SYSTEM**

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ABSTRACT

This project presents the design of an automated clothesline system which is made to improve the effectiveness of drying clothing. This project is implemented using Arduino microcontroller, sensors, Light Emitting Diode (LED), Liquid Crystal Display (LCD) and actuators which is DC motor to control the automated process of moving the clothesline. The proposed project intends to offer a practical and cost-effective method for solar powered clothing drying. The system will retrieve in the clothesline automatically when it's raining and retrieve out the clothes when the sun is up. In order to make that happen, a servo motor will be needed to move the clothesline. LDR (Light Dependent Resistor) sensor will be applied in the system to detect the presence of light. Rain sensor also will be used to sense when the rain drops. The LED will light up upon detecting the rain. LCD will be used to display the percentage of light. LED indicators and LCD display provide visual cues and real time information, making the system user-friendly and responsive. This innovative approach, incorporating Arduino technology, aims to improve energy conservation and user convenience in traditional clothes drying practices.

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CHAPTER ONE

INTRODUCTION

1.1 Project Overview

In this modern era, people become busier than ever with their work making it hard for them to find a day to do their laundry or keep an eye on their laundry, especially with the unpredictable climate change. People who work outside, especially those who have a packed day, tend to not have the time to manage their normal routine such as laundry. They must finish washing and hanging their clothes outside before going to work. This is the normal routine for most individuals in the country. However, the worries of people who are at another place such as office will cause them to not be able to do their laundry peacefully since the weather could change at any time while they're still not back at home. Unforeseen weather is a problem that directly affects the process of drying garments particularly for those who do the laundry by utilizing outdoor drying techniques. Storm or rain showers usually being the weather that is unpredictable. Since rain can make the clothes that have been hanging outside wet, this can be challenging for those who dry their clothes by relying on the sun to prevent the clothes from getting wet because of the sudden rainfall, one must hurry and retrieve the clothes one by one. This interruption may cause burden and extended drying periods. In addition to that, individuals who are currently not at home because of work or being in another place will face the anxiety of getting their clothes soaked by a sudden rainfall. People are more likely to go to the doobby as a solution for this case. However, doing so for an extended period can be expensive in both time and money. Innovative thinking is the best way to solve this issue.

This situation gives the idea to develop a system to prevent the clothes that are hanging outside from becoming wet because of the rain when one is not at home. A sudden storm or rain always happens during the wet season. This phenomenon makes it hard for individuals to dry their clothes outside. Furthermore, Malaysia face rain and humidity throughout the year