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**FINAL REPORT:
SUPER EFFICIENT DRYER**

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ABSTRACT

Today, technology is growing and more of the benefits of expanding it. For those who are busy working and do not have time to manage daily activities such as washing clothes, a project microcontroller clothes dryer is built to simplify daily work. It's because the weather can change from sunny to rainy days. This project use Microcontroller PIC16F877A which is only need to create and enter the coding to conduct this system properly. During sunny day, the clothes will stay outside if oppositely the clothes will retrieve-in when it is a rain. This project uses motor and a sensor. Motor is used to rotate the fan for dry the clothes. Lighting or bulb also is part of a tool to help dry clothes. There are three sensors used in this project which are humidity sensor, temperature sensor and rain sensor. Humidity sensor used to detect how wet the area and give instructions to the PIC to work according to the length of time that has been record. Rain sensor used to detect the presence of water and sending information to the PIC to retrieve-in the clothes. If no water detected the clothes stay at outside and the temperature sensor used to record the temperature at outside the garage. This process will occur in garage and timing for drying clothes depending on the humidity and it will conduct automatically after given instructions. When the clothes are dry the system will automatically turn off.

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Drying is a mass transfer process consisting of the removal water or another solvent by evaporation from a solid, semi-solid or liquid [1]. Clothes are one of the important things in human life besides food, money, gadget and others. Forms and types of clothes are always changing synchronised with the times. A long time ago before the modern life, most of the people using leaves and animal skins as clothes but now the world have change with full of technologies. The new era of world create any types of clothes and the designers are always looking for new ideas to shape the material to use as clothes. Various types of clothes successfully created by the designers and form a perfect outfit for human use. On the other hand to maintain the durability, freshness of the clothes and to be used repeatedly for sure it must be washed and cared properly.

A long time ago, people only used traditional tools and create a tool to be used for washing the clothes. Mostly people using their hand to washing and evaporate their clothes. After washing it, the clothes will hang on the clothesline that has been created using a rope around the house compound. In the village clothesline is be made by the wire or rope tied on two wooden T-Shape [2]. If the weather is fine, it is not a problem to hanging up the clothes outside but when it comes to rainy day, clothes have to be lifted because to prevent the clothes from getting wet.