



UNIVERSITI TEKNOLOGI MARA

**FINAL REPORT :
SMART HANGER**

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ABSTRACT

The Smart Hanger project has been designed to move the clothes hanger using the DC Motor. For the success of these projects two sensor has been used, namely Water Sensor and Light Sensor. The purpose of the sensor is to detect whether it is rainy or not rainy and daylight or night respectively. The aim of this project is to help and ease the burden on people to dry their clothes without having to worry if it rains or it was night. This is because, smart clothes hanger is a hanger designed automatically to move in and out of hanger from the mini house built as a temporary protective housing to prevent clothes from getting wet. Smart Hanger will move out of minihouse during the day or not rain while will move into the minihouse during rain or night. Therefore, the main objective of the project which to ease the burden of all households have been achieved with the creation of Smart Hanger project. The result of this project has been measured in two conditions which result is software simulation and hardware implementation result. for sotware simulation , a result that was measured using a voltmeter and ammeter in ISIS applications have shown that reading is almost equal to the actual reading . For hardware implementation, the result obtain by using a multimeter was slidely decrease with the actual reading may be due to voltage drop cause by the jumper wire .

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Clothes are the one of fundamental human desire. Hygiene in clothing almost are significant. The reason for it occurred because human healthy. Hence, they need to dry perfectly after being washing. Nevertheless, as we can see, the weather now are not commonly fix for predicting. This happen especially when family are going to work. So, we create the Smart Hanger to overcome this problem.

The project is designed to detect the water and also light to move the hanger out from the mini house that we create as the safe house to prevent the clothes from getting wet. This will happen when the system of the hanger detect the outside external environment daylight and not raining. The hanger also can automatically move back to the safe house when the system detect raining outside the safe house. During night, the hanger will move back to the safe house as the system of the hanger detect no light outside the safe house. In this project we use the light sensor to detect whether the outside condition of the safe house is daylight or night. Then, to detect whether the outside condition of the safe house is rain or not rain we use water sensor.

1.2 Problem Statement

People nowadays attend to be busy with their work in their daily life and they often force to leave the cloth hung outdoors at night. For example, people often forgot to pick up clothes when night fall. Other example is in evening during work hours, there is nobody to take the clothes when rainy or cloudy and when rainy seasons, people willing to take no risk to hang up their clothes outdoors. So, 'Smart Hanger' will be the best suite to overcome the problem.