Universiti Teknologi MARA

Cloud Based Remote Monitoring and Controlling of Iron (CBRMC Iron)

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ABSTRACT

Neglecting or forgetting to power off the iron during or after done ironing seems to be minor problem. Make no mistake, this problem can be a life threatening. Lot of news mentioning accidents that cause from the unattended iron that cause from minor injuries to life lost incidents. Now in market, they already a lot of product that promote iron with a motion sensor that will turn off after not attended a certain time. However, cost to purchase this product is quite high and there is no much products to choose from in term of features and brands. For the commoners, with this expensive price to purchase for iron, they might think that it is not so important regarding the fact this issue can cause life threatening. Using the feature of Internet of Things (IoT) with the attachment of sensors and cloud can increase the safety system of domestic iron significantly as the data from the sensor will be stored in cloud which can be monitored and controlled. In order to done this, the safety system iron implement with sensors can be used to detect the condition of the iron most of time. Then the alert system or notification system implemented to notify the user status of iron as well as monitored and controlled it via wireless connection with the help of ESP8266 Wi-Fi module. This ESP8266 will get network connection through WI-FI and enable connection between user and hardware. After that, tilt sensor also used in order to detect the condition of iron to decide the next action which power off the iron or not under certain conditions. All the data gathering such as power usage, time log and monitoring will be stored inside the cloud for user or owner to analyze in the future.

TABLE OF CONTENTS

CONTENT	PAGE

CHAPTER ONE: INTRODUCTION

CHAPTER TWO: LITERATURE REVIEW

CHAPTER 1

INTRODUCTION

1.1   Background of Study

Iron safety system is important aspect that all people must be aware and take serious matter about it. Many iron safety system beings improvise and upgraded each year. However, every year there must be a news regarding accidents that happened because lack of safety measure in development of iron either in our country, Malaysia or overseas. Many factor that can lead to accidents from minor injuries to major regarding unattended iron such as burn contact and house fire that take a life.

Iron safety system that are introduced today's, most of them were implemented by the iron manufacturer in order to improvise their products and maintain their iron safety rating so that they will not lose any customers but gains more in future. Mostly today, people does not care about the sophisticated safety system of iron, they usually think that this is a small matter because rarely happen to them. Make no mistake, this can be a serious cause in case no precaution was taken. Using old age iron also can be a cause to unwanted accident.

There are many iron safety systems sold on the market such as auto shut off system, motion detection system, and kill switch. All these devices do magnificent works that bring lot of benefits that can reduce life lost and injuries. All these devices can be review with the manufacturer to gain lot more information about the safety system iron.