CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Smart Homerity is a security device that protects your self-belonging, family members, home or company by using simple low budget materials. Smart Homerity do more than keep you and your family safe and secure. This system is easy enough for every client to operate, providing a level of simplicity and convenience you will really appreciate. Smart Homerity is mainly used for theft protection for the client self-belonging from being stolen by thief. This system can be setup somewhere in your home or outside of the house of the owner, connect to your Wi-Fi network and then gain access your own Dropbox. Apart from that, the device catalyses by human motion as a sensor to the device alarm and then send notification through text-messaging via smartphone.

The first application for the Smart Homerity will be an advanced rendition of standard errands for the security cam by taking pictures when some movement is recognized. The device will store images taken by the USB camera on a micro SD card inserted into Arduino Yun card slot. Besides that, these images will be automatically uploaded on a protected location (Dropbox) as evidences by using Python language.
The second application that will implement to Smart Homerity is text messaging notification via smartphone. This will be done by register a Temboo and Twilio account that allow the activity to be done for sending text messaging. Once the motion detected, Arduino Yun will send the notification to user via smartphone by stating that intruders are in the house/ any thief movement.

Smart Homerity will be advantages to client as it will protect their safety among members plus enhance the security of the client’s places. By having this device, thief protection will be improved efficiency and highly secure for client’s needs.

1.2 PROBLEM STATEMENT

There are several problem that arise when security of property is relates. Thus, Smart Homerity that will be developed based on the problems:

I. Clients are lack of awareness of thief protection as it is one of most favourable home crime nowadays thus this device will assists client to have security for themselves. So, this will increase the level of secure for them and may reduce the number of cases for intruders.

II. Client will face many losses of his/her valuable properties due to not implementing any security device inside the home/ workplace. This is because there is no security protection that worked well when they are not in home. It will give a chance to intruders to make crime.

III. Most of the clients are comes from very busy person with difference working background, they does not have any time to monitor their self-belonging due to
its busy working hours. So, by having this device, client can get notification alerts from devices and some evidence about the intruders.

1.3 OBJECTIVE

The objectives of the project are:

i. To design a monitoring system using Arduino, webcam and motion sensor device.

ii. To design a SMS notification system uses an API communication and AVR programming.

iii. To develop a comprehensive security system by integrating Arduino, webcam, text-messaging and cloud storage.

1.4 SCOPE

The scope of this project has been research. There are two scopes for this device; user and system.

a. Scope for user

The device only has one user which is a House owner.

i. House Owner