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FINAL REPORT OF DIPLOMA PROJECT

**INTERCOM AND
VIDEO CAPTURE SYSTEM**

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ABSTRACT

Intercom is literally a system that enables voice communication protocol between the persons from different part of a building, ship, airplane, and other place as long as it is within the designated range.

Intercom is simply the merging of the words 'inter' and 'com'. 'Inter' means to interact with each other between the units signified. 'Com' or communication means conveyance of information.

There are several reasons that have seduced us in venturing into this part of the SMART HOME project.

First of all, the present Intercom systems that are available to consumers are within the domain of extremely delusive price that is out of the consumers' reach to obtain one. They have to pay exorbitantly in order to have it installed to their designated area. Here is where our project came into the picture. We are aiming at producing an intercom system that is fully operational, reliable, and most importantly of reasonable price that is attractive to the consumer and competitive in the market of communication devices.

Initially we have allotted about RM 400 for this project that covers the costs of the intercom and video capture system. After running further test, we found out that the prices can still be reduced by the quality of the components' factor. Less quality components are likely to be cheaper.

The intercom and video capture system can be primarily placed at the front door or from gate to the main monitoring system of the house, and from room to room. We can also use the intercom without the video capture accessory. The decision to install the accessory (video capture device) is up for the consumer to determine.

The benefit of the project is two people can communicate from one place to another in the house, security in order to make our life easier and for the video capture system, the users at both ends can determine the identities of their respondent though visual recognition.

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CHAPTER 1

INTRODUCTION

1.1 Background

Intercom is a private telecommunications system that allows typically two or more locations to communicate with each other like telephone does.

Simple two stations wired intercom system can be used as an intercom and door phone. You can use an intercom system from your house to house gate/door to screen visitors to your house.

Many productions which needs co-operation of more than a few people need special intercoms that cover many users. Intercom systems used in TV and stage productions are usually headset type intercoms connected to one line using party line arrangement. The primary use of this type of system is in live or media productions where (for example) the video director speaks to the camera operators, or where the stage manager speaks to the stage hands and lighting operator, etc.

Intercom systems, by definition, may be comprised of many different types of intercoms and subsystems. The basic building blocks can be categorized, however, into four basic types or elements: Party-line Systems, Matrix Systems, Wireless Systems, and Accessories.

Intercom is an advantage, so people can interact with each other within the designated range. Video capture is a unit that allows the person to see what another person is doing. But a system installed by an intercom and video capture system can cost thousands of ringgit. As an alternative, a simple intercom and video capture system can be designed with the experienced that we all have.