

CHAPTER 1

INTRODUCTION

1.1 Background

In an age of technological development very rapidly, Electronic equipment is one of the important tools in supporting the quality of our lives. Utilization of electrical energy currently becomes less effective, because to the excessive use of electricity in electronic equipment. Excessive use of electricity, resulting in more and more costs incurred. To solve this problem, Home automation or Smart Home becomes an effective solution to be used.

Home Automation or also called smart home is a house, equipped with the system, to integrate and control the electronic devices in the home, for example, lights, TVs, Home Theater, CCTV, Alarms, Fans, Door Lock, Motion Sensor, and much more. The purpose of the Home Automation system includes convenience, energy efficiency, security, and comfort. Currently, the popularity of the concept of Home Automation is rapidly growing, and is supported by many companies engaged in this field such as, control4, Crestron, AMX, knx, dynalite, etc. (Setiawan, 2018)

In making this home automation system, make use of computer or smartphone, which is used to monitor and control home automation in every aspect of everyday life. Previously already existed, which once made the project to facilitate us in controlling home electrical appliances automatically. On the project created this time, inspired by previous researchers, namely in the form of control system of household electronic devices, which is integrated based on internet of things with MQTT concept.

1.2 Scope

In this project home automation, implemented in a prototype house. There are some things that are discussed in this study, among others are as follows:

1. How to build a system of smart home systems that can be controlled via smartphone ?
2. How to design hardware system based on Arduino UNO ?

1.3 Objective

The purpose of this home automation project is, to make it easier to monitor and control the house automatically via mobile phone or computer anywhere. With the creation of this project, a person can control the house while traveling or at home alone.

