

ABSTRACT

There are many electronic devices used in the home that some of them are controlled via the remote (TV, AC) and many manually controlled (lights, dispenser, etc.). Existing control mechanisms apparently have limitations and drawbacks. For conventional/manual mechanism, we can't do control when we are not in place. We also can't do control many devices at one time. In addition, there is still a risk of fire leap at controlling the existing control interfaces such as the plug. For devices that are controlled via the remote, the control mechanism is still not effective in fact, because each device like Air Conditioner or Television are controlled by different remote independently. It is certainly not effective and efficient because the more device used meaning the more remote to control it.

This thesis, designed household electronic devices remote control based on Bluetooth communication, implemented on android phone. In general, the system is divided into two blocks, they are the design of software and the design of hardware. Software design is to build the android application used by user. Hardware design intended to solve the problems of data communication between Android and electronic devices to be controlled. Hardware also intended to controls the execution of the household electronic devices state. The hardware is built will overcome Bluetooth communication between Android (remote) with the device to be controlled.

The final task is generating a remote control system using Android phones can improve the ease and convenience in controlling household electronic devices. Distance control the maximum that can be done to the case without the obstacle space is up to 30 meters, while for the room with the obstacle, the system can communicate with up to a distance of 10 meters. The system can lift the entire household devices and devices that have limited power to more than 2200 W. For certain circumstances, the control can be done by controlling the automatic on / off at the desired household and at the desired time.

Keywords : *Android, software, hardware, remote control, Bluetooth, Home Electronics, Electrical*