BLUETOOTH SMART HOME

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ABSTRACT

The design of this project implements a system where the home appliances could be control by using Bluetooth technology via PC or Smart Phone. In order to let only authorized person to control the home appliances, authentication process is needed in this system for security purpose. Sensors are added into the system in order to show the environment of the house.

There is 2 parts of the development of the project where are the software and the hardware. Software part is the PIC programming and the user interface. The working program is achieved by using MikroC Pro for PIC. A user interface is build by using Visual Basic 6.0. The user interface included all button to switch ON/OFF the home appliances and a display of the brightness of the house. Password authentication is included in the user interface as stated in the objectives of this project.

As for the hardware part, transistors and relay are using in order to switch the home appliances ON/OFF. Power extension plug and light bulb are modified to be controlled by the user interface. An electro magnet is added to the door so the user will be able to open or close the door. LDR sensor is added to the system so the brightness condition will be shown on the user interface.

In conclusion, all the objectives of this project are all achieved. All circuits are made into PCB in order for easy handling. However, there are still weaknesses for this system and required an enhancement on the future.