HOME AUTOMATION SYSTEM

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BACKGROUND

Ever wanted to make your home automated? Wanted to control the lights, fan and other appliances from your smartphone? Android Home Automation will show you how to make your home automated using an android smartphone. This requires you to have no experience of android programming at all, as free application is included for you to develop. Using this android application, you will be able to control your lights, air conditioning, door locks, etc. from your smartphone.

Project Overview

This project is to design a home automated system that can enable user to control the electrical appliances used in your house with the help of a smart phone even if you are miles away from your house and don't have accesiblity to cellphone and make it outsatnding from the existing product.

The motivation is to make one feel comfortable and have a great control over your electric bills even when you are not at home.

With this automation system, people will have a great piece of mind about monitoring their home security even while being at work or vacation.

SCHEMATICS
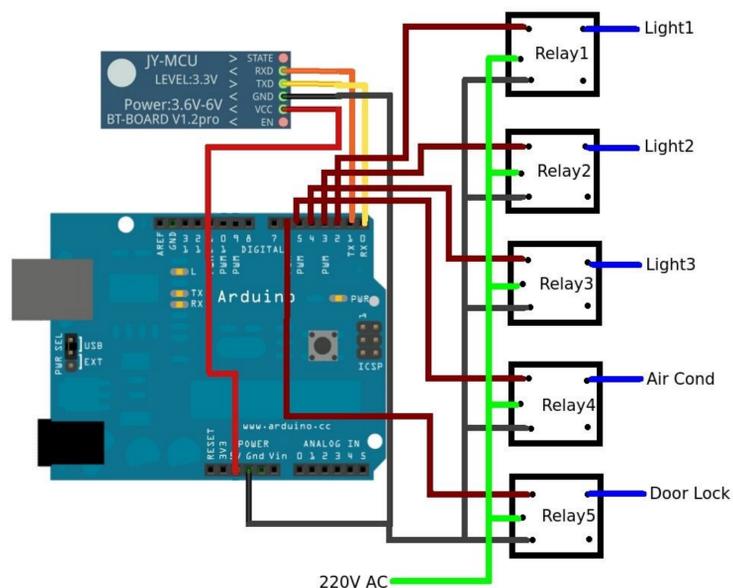
SYSTEM DESIGN

Arduino Uno
The brain of the system which will be used to store program and communicate between the components.
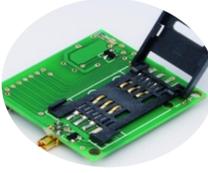
GSM Module
It is one of the critical component for our project to make it stand out from market products as it will help us to provide instructions and communicate between system in home from anywhere we are.

Block Diagram description
Block diagram shows the whole circuit operation of the system, an sms is sent from the user phone to the number which is programmed in the Arduino and GSM Module. The GSM Module receives the sms and sends the command to the Arduino. Arduino compare the command to the predefine commands when it matches it sends a signal to the relay for turning on and off of home appliance and the relative results also prints on the LCD by using appropriate commands.
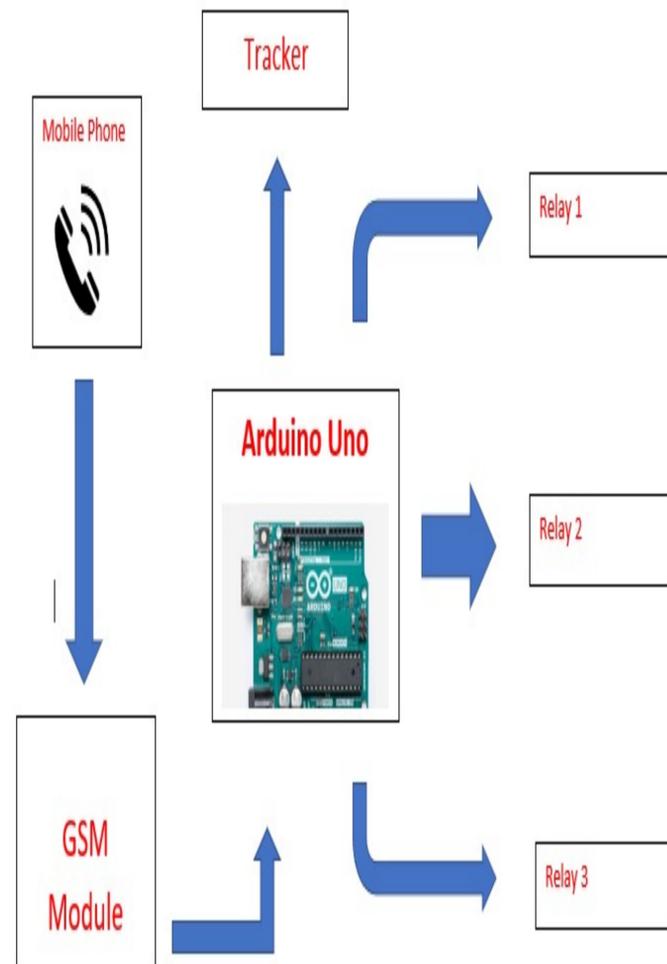
Design of the System
The functionality will depend on how well our components are interconnected. We will be using C programming to code Arduino Uno for its use.

Relays
Relay is an electrically operated switch. Relays will be used to manipulate the power (voltages, currents) needed for the components and to connect with the Arduino.

Component Selection
A system is the integration of elements with a common purpose of achieving a specific objective. However, every system comprises of basic components which formulate the system by the coordination of the various components. In this project, various components of the design have been coordinated together with the aim of achieving a more desirable and effective controlling of home appliances system.
The system is divided into power, control, display, and communication module.
The power circuit is however used to power up the control circuit, the display circuit and the communication module.

FUTURE DIRECTION

- Make the system outstanding from the market which will help to control the system from wherever you are. Not only metered distances, but globally.
- Easy controllable and reliable.

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CONTACT INFORMATION

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