

SMS CONTROL HOME APPLIANCES

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ABSTRACT: This project is designed to make home automation easy to control when a user is not at home. The project is designed to allow easy use of a mobile phone to control appliances in the home. Using a mobile phone the development of the control system will be carried out using SMS. This will communicate with another mobile phone OR GSM MODEM, which in turn controls the devices attached to microcontroller modules. By this project it become very easy to monitor the home/ office at any place. Home/ office is wired with few connected sensor's. When any sensors is activate then system automatic transfer a sms with particular message to desired person. At this time system not only send a sms . In this project we use total 4 sensor for complete home automation.

Infra red door sensor.

Gas (toxic gas sensor)

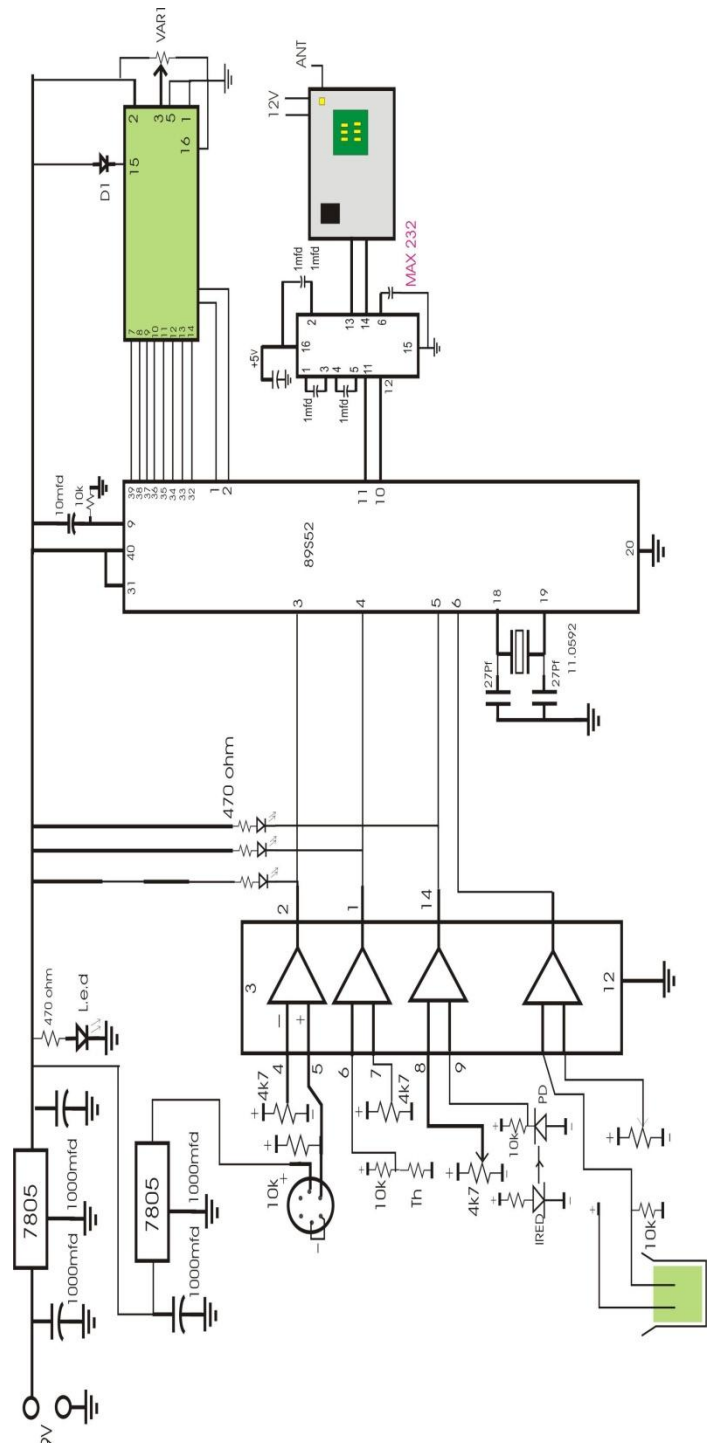
Water level sensor.

Over heat temperature sensor.

In this project we use one lcd to show the different message .When any sensor is activate then connected led is on with buzzer and at the same time microcontroller send a message to the desired person. Message and phone no is already program in the program code of the controller

I. INTRODUCTION

The project is aimed at developing and testing the use of mobile phones to remotely control an appliance control system. The microcontroller would then control an device based on the information given to it. The proposed solution will need to be easy to use, simple, secure, robust and be useful on most mobile



phones. To achieve this testing will need to be carried out to create a useful system.

II. CIRCUIT DIAGRAM

III. COMPONENTS USED

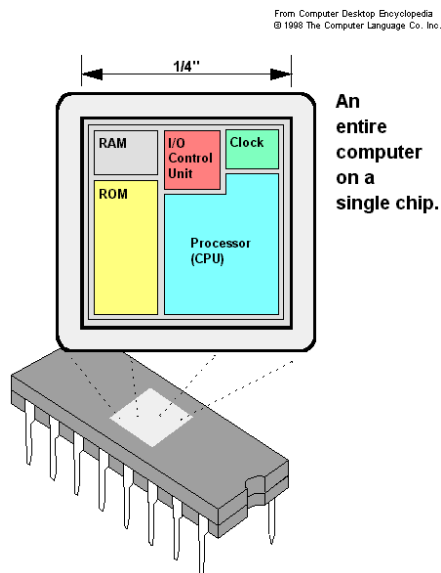
1. AT command supporting GSM mobile phone.
2. 89S52 Microcontroller
3. Max 232 IC.
4. Relays
5. Relay driver CIRCUITS
6. Voltage regulator 7805.
7. Diode IN4007
8. GSM MODEM

8051 MICROCONTROLLER:

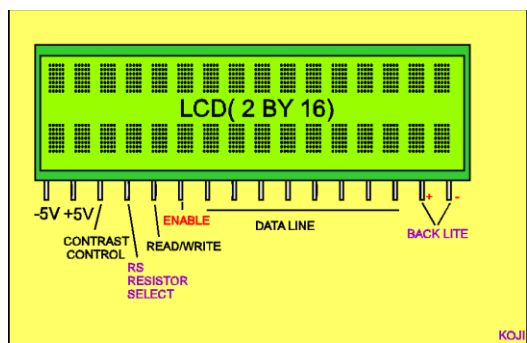
When we have to learn about a new computer we have to familiarize about the machine capability we are using, and we can do it by studying the internal hardware design (devices architecture), and also to know about the size, number and the size of the registers.

A microcontroller is a single chip that contains the processor (the CPU), non-volatile memory for the program (ROM or flash), volatile memory for input and output (RAM), a clock and an I/O control unit. Also called a "computer on a chip," billions of microcontroller units (MCUs) are embedded each year in a myriad of products from toys to appliances to automobiles. For example, a single vehicle can use 70 or more microcontrollers. The following picture describes a general block diagram of microcontroller.

89s52: The AT89S52 is a low-power, high-performance CMOS 8-bit microcontroller with 8K bytes of in-system programmable Flash memory. The device is manufactured using Atmel's high-density nonvolatile memory technology and is compatible with the industry-standard 80C51 instruction set and pinout. The on-chip Flash allows the program memory to be reprogrammed in-system or by a conventional nonvolatile memory programmer. By combining a versatile 8-bit CPU with in-system programmable Flash on a monolithic chip, the Atmel AT89S52 is a powerful microcontroller, which provides a highly flexible and cost-effective solution to many, embedded control applications. The AT89S52 provides the following standard features: 8K bytes of Flash, 256 bytes of RAM, 32 I/O lines, Watchdog timer, two data pointers, three 16-bit timer/counters, a six-vector two-level interrupt architecture, a full duplex serial port, on-chip oscillator, and clock circuitry. In addition, the AT89S52 is designed with static logic for operation down to zero frequency and supports two software selectable power saving modes. The Idle Mode stops the CPU while allowing the RAM, timer/counters, serial port, and interrupt system to continue functioning. The Power-down mode saves the RAM contents but freezes the oscillator, disabling all other chip functions until the next interrupt



Frequently, an 8051 program must interact with the outside world using input and output devices that communicate directly with a human being. One of the most common devices attached to an 8051 is an LCD display. Some of the most common LCDs connected to the 8051 are 16x2 and 20x2 displays. This means 16 characters per line by 2 lines and 20 characters per line by 2 lines, respectively.

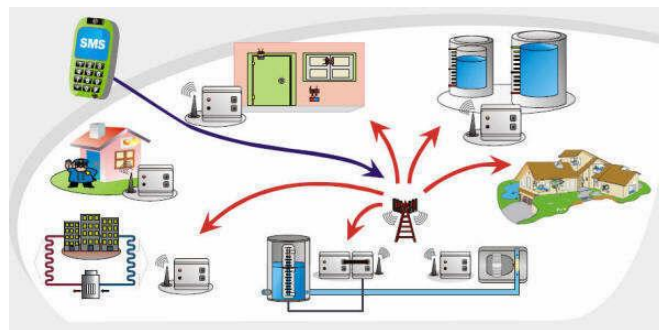


IV. SOFTWARE USED

1. Keil u-Vision 3.0. 8051 IDE

Keil Software is used provide you with software development tools for 8051 based microcontrollers. With the Keil tools, you can generate embedded applications for virtually every 8051 derivative. The supported microcontrollers are listed in the μ -vision

2. PRO51 Programmer Software



V. CONCLUSION

SMS based remote control for home appliances are beneficial for the human generation because mobile is mostly used for communication purposes nowadays. The SMS based remote control for home appliances is easy to implement to make the electrical device ON/OFF. In simple automation system where the internet facilities and even PC are not provided, one can use mobile phone based control system which is simple and cost effective. In many cases for instance landline phone with extension card could also be used for the system. In future we are going to develop

the audio or voice based remote home and office control system which is beneficial for physically handicapped persons or blind persons.

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