

GSM BASED SECURITY SYSTEM

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Abstract- We develop a type of security system or circuit in which a circuit is fitted at door. The circuit or security system will activated by the owner of house through mobile by sending a password and message lock when he will leave the house. If anyone try to open the door or tried to break the system then he will get a shock security system will continuously on till the circuit will not deactivated by owner.

The system will off by sending password and unlock message through mobile of owner.

Key Words: GSM, Home security System

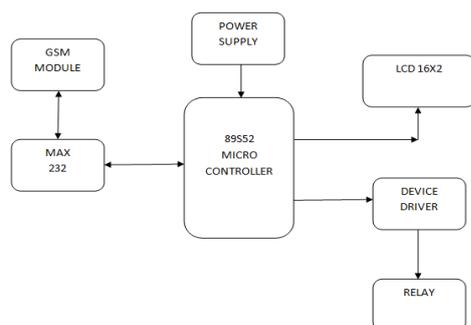
1. INTRODUCTION

Basically our aim is to protect the house so we developed a type of security system or circuit in which a circuit is fitted at door. The circuit or security system will activated by the owner of house through mobile by sending a password and message lock when he will leave the house. If anyone tried to open the door or tried to break the system then he will get a shock security system will continuously on till the circuit will not deactivated by owner. The system will off by sending password and unlock message through mobile of owner.

When owner of hose will send the message to lock the system with password then it will receive on GSM module then it will transmitted to the microcontroller through max232 device which will interface with the relay circuit through ULN device & relay will get turn on & current will flow through the circuit & when anybody tried to break the lock of door or touch the door without owner's permission then capacitor fitted at relay circuit get discharged through the person's body & he will get a shock.

1.1 Block Diagram

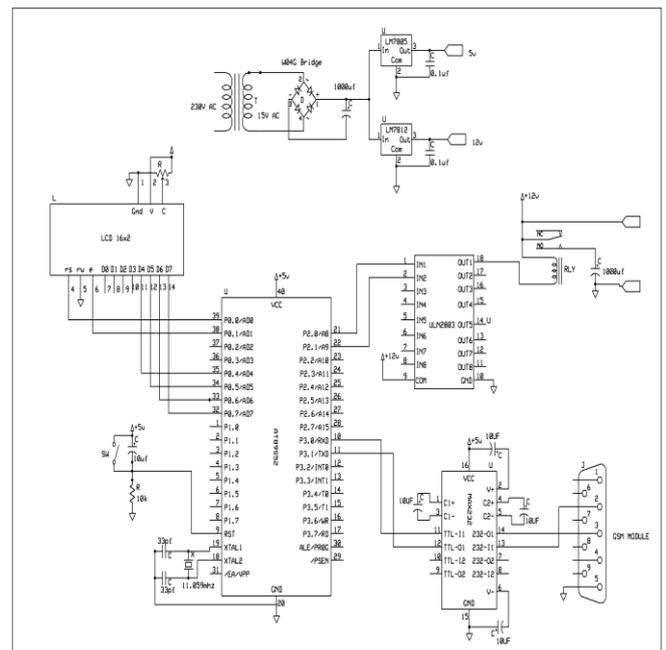
BLOCK DIAGRAM:



2. COMPONENTS

Micro controller, GSM module, LCD MAX232, ULN, Power supply, Relay circuit

3. CIRCUIT DIAGRAM



3.1 CONSTRUCTION

As shown in figure it consist of 7 main components Power Supply, Micro Controller AT89C52, LCD, ULN 2803, Relay circuit, Max232, GSM module etc. Power supply consist of transformer, rectifier, filter, voltage regulator etc. The port 0 of micro controller is connected to the LCD, port 2 of micro controller is connected to ULN device, port 3 of micro controller is connected to MAX232 IC & port 1 of it is connected to the reset circuit. The ULN device is connected to the relay circuit, & the MAX232 IC is connected to the GSM module.

3.2 WORKING

As 230 volt single phase supply comes from MSCB, transformer convert it into 12 volt single phase supply, after that rectifier convert it into dc from ac as we require dc for the circuit, then capacitor filter convert it into pure dc by removing ripples from it, then two voltage regulator is use to obtain 12 volt & 5 volt supply which gives us constant output

voltage. The 12 supply is require for the ULN device & relay circuit & 5 volt supply is require for the micro controller, reset circuit & MAX232 IC. The supply is given to the micro controller, then it divide in two paths 1. Through micro controller it is given to LCD, ULN & ULN through is given to relay circuit as their requirements 2. Through micro controller it is given to the max 232 IC & max232 IC through GSM module. The micro controller is used to give the logic 0 or 1 or to on & off the circuit & to read the program. The LCD is used to display the message or activation & deactivation of the circuit by the mobile. The ULN is used to give the 12 volt supply to the relay circuit as a device driver. The relay circuit is used to on or off the circuit. AX232 is used to give 5 volt supply to GSM module The GSM module is used to communicate with the circuit or to connect with it from anywhere by placing seem card in it.

4. NEED OF DESIGN

By considering increase in theft we all are know that our hose is not safe without any security system. So it is essential that to provide a security system to our home which will protect our hose from thieves & make our property secure. Without any proper security system our home can't be safe. So we have to develop a system which will protect our house from thieves. So in this project we develop a security system in which a password & message is send to the circuit through owners mobile so that door will locked automatically & if any one tried to open the door without permission then he will get a electric shock. & the same system will deactivated through owners mobile.

5. ADVANTAGES

This circuit is compact in size.
It is easy to use.
It is easy to handle.
Easy in construction.
It has low cost.
Light in weight so that we can it is easy to carry.

6. CONCLUSION

From our project we are conclude that this is one of the best option for security purpose. Since all the devices or components which we are using in our project is very easily available at the store & affordable to common people & using current resources of commutation system, this model is developed. Hence this makes it very attractive & also very efficient in operation & cost effective, so that a common people can easily afford it & very easy in operation also. It have following prominent features that makes it advanced.

-Can provide security to 8 devices like doors, gate Etc.
-User programmable plain text message control

-Communicate from any other mobile if password is correctly known.

-Can be controlled from anywhere, anytime.

7. REFERENCES

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