بسم الله الرحمن الرحيم

Wireless security system

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THE AIM OF THIS RESEARCH

Design and implement a smart security system:-

- To protect companies, homes and factories or any building against danger, damage, and any criminal activity.
- To help in getting timely information about visitors at building.

COMPONENTS

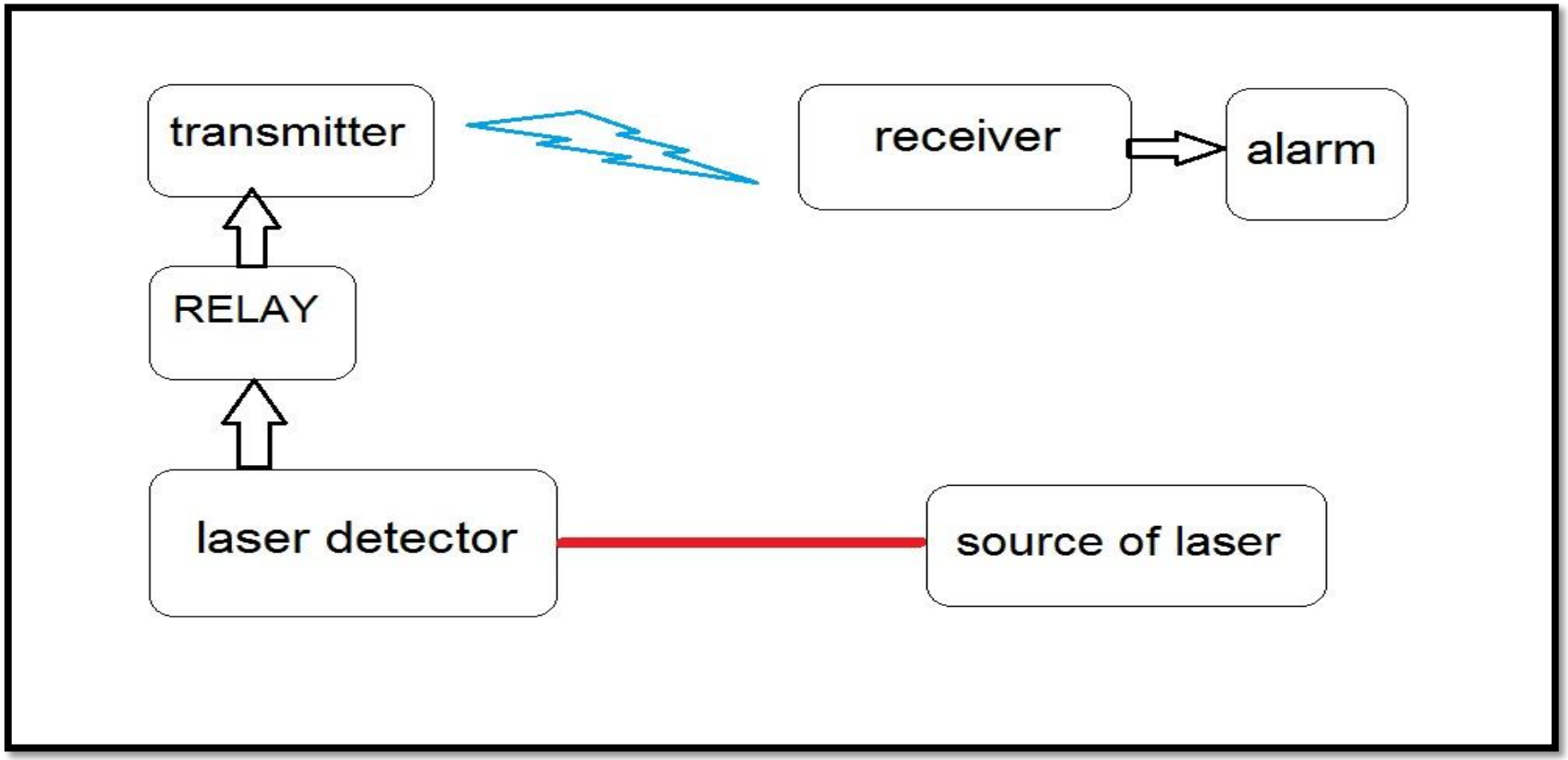
1- ARDUINO
2- PASSIVE INFRARED SENSOR (PIR SENSOR)
3- LASER DETECTOR:
4- RELAY MODULE
5- GSM MODEM
6- MOBILE PHONE
7- LCD (LIQUID CRYSTAL DISPLAY)
8- KEYPAD

SECURITY

A Security System provides a form of protection that ensures the safety and security of the assets and the threat but is not limited to the elimination of either the threat.

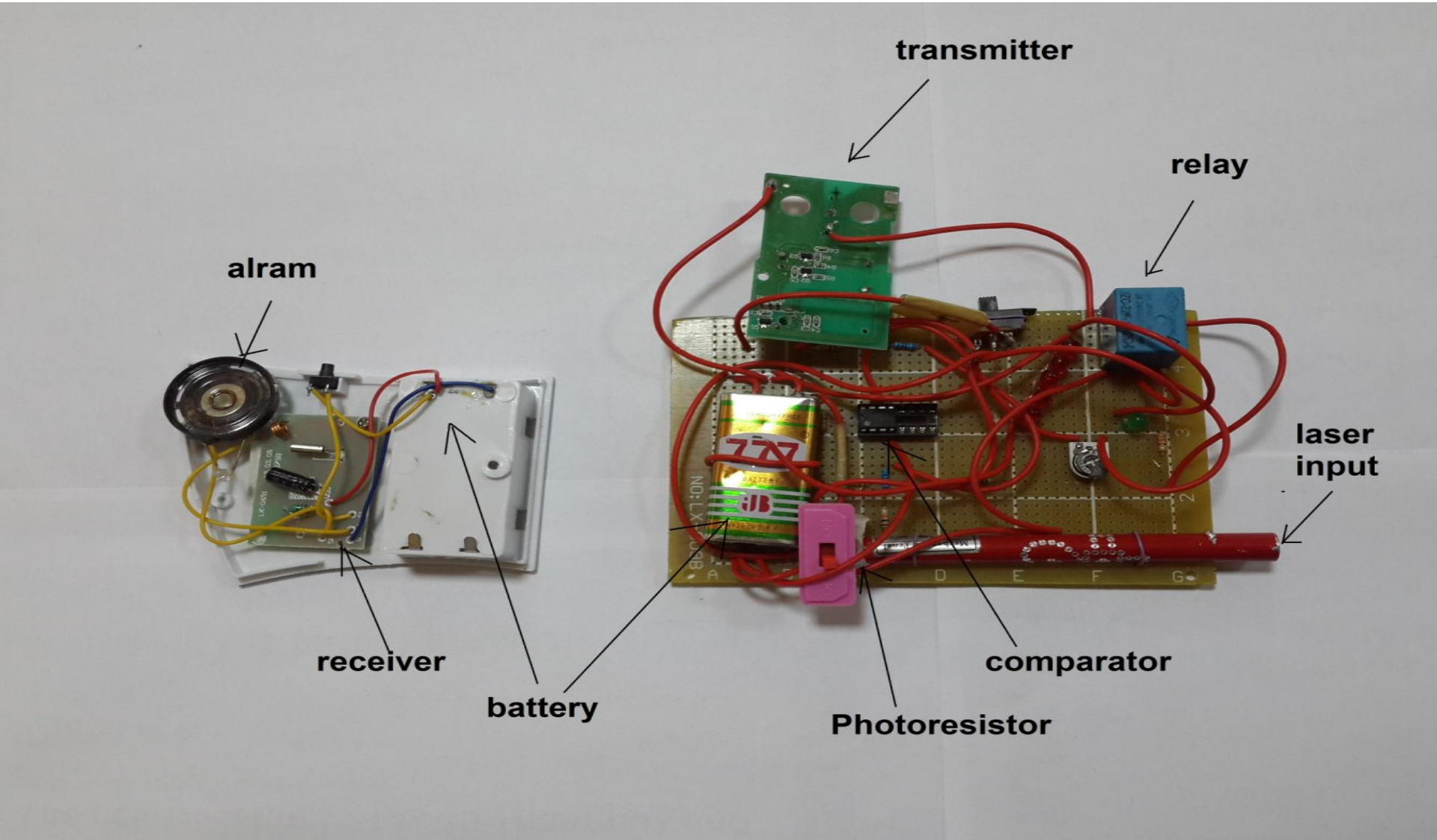
PROPOSED SYSTEM

1- Security Alarm System (without GSM)



Block Diagram of Wireless Security by Alarm

Hardware of Wireless Security by Alarm



2- SECURITY ALARM SYSTEM (WITH GSM AND PASWORD AUTHENTICATION)

GSM (Global System for Mobile Communications) modem in this system is a mobile phone.

the Arduino Uno Board are used to communicate between the mobile phone and the devices and sensors installed at building.

PASSWORD AUTHENTICATION:

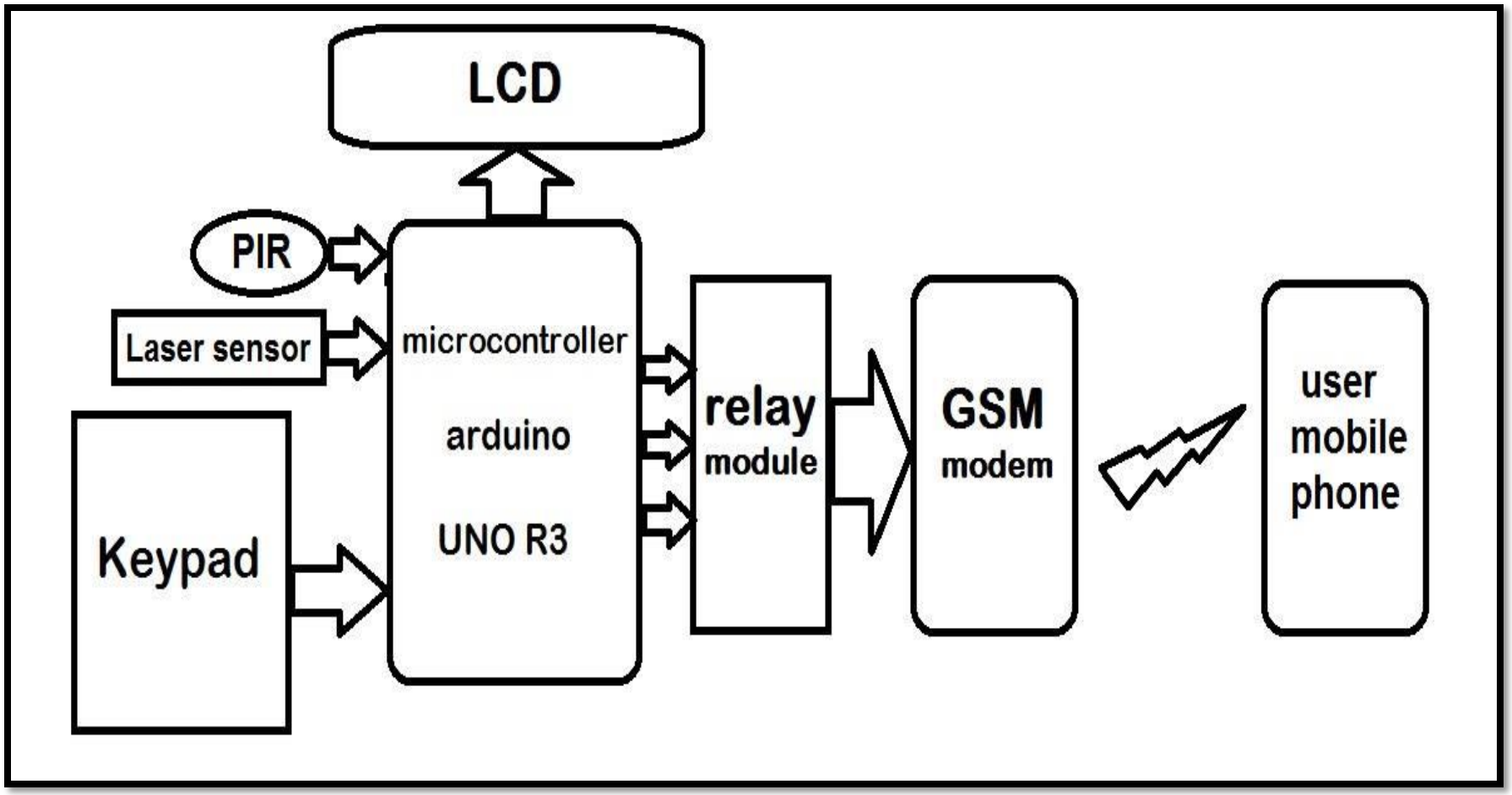
This system stores password of authenticated users for the purpose of validation.

Security Alarm System with GSM(FOR UNAUTHORIZED USER) into :

1- SMS(Short Message Service)

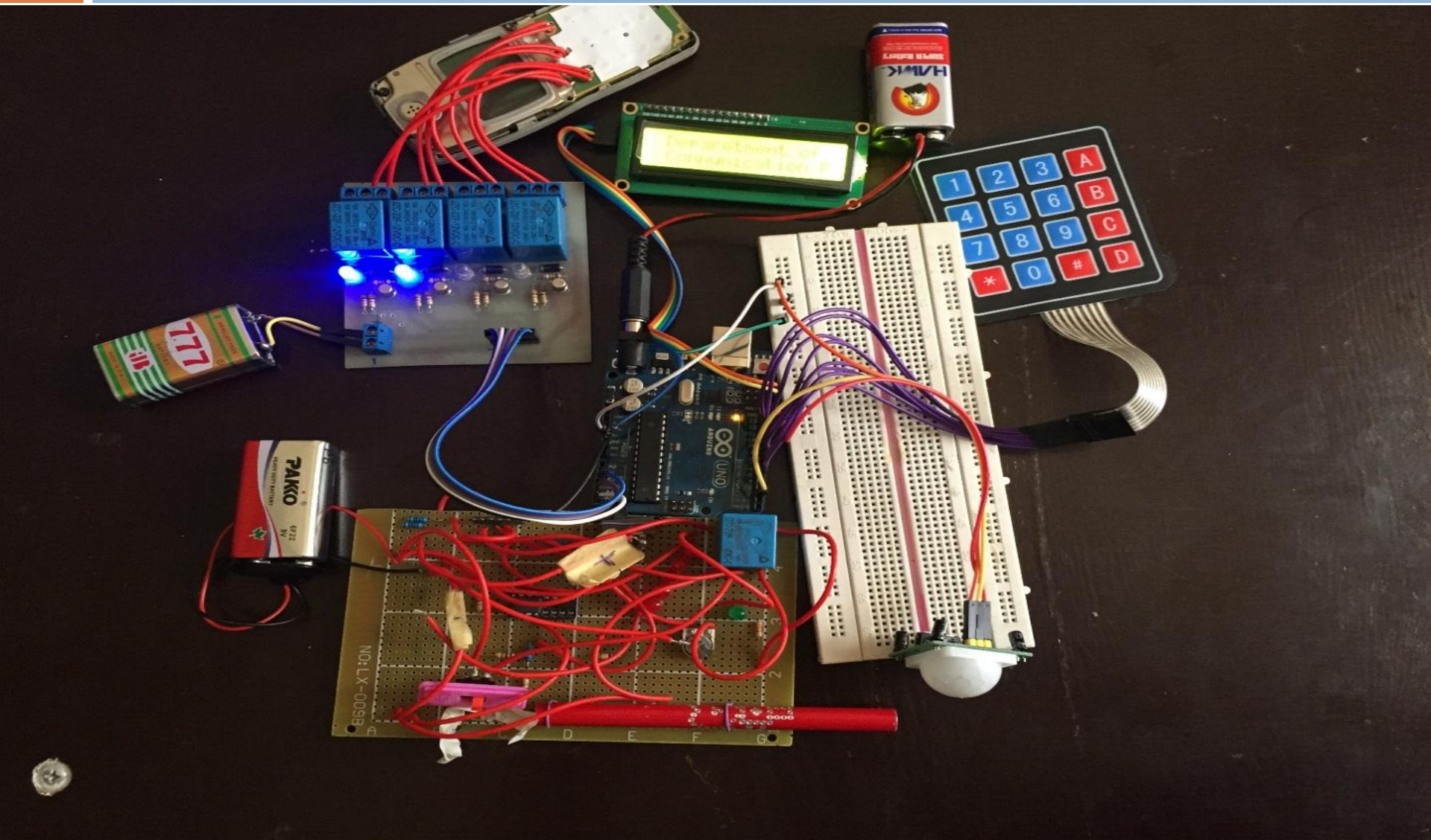
2- MMS (Multimedia Message Service)

Wireless security system by GSM- SMS

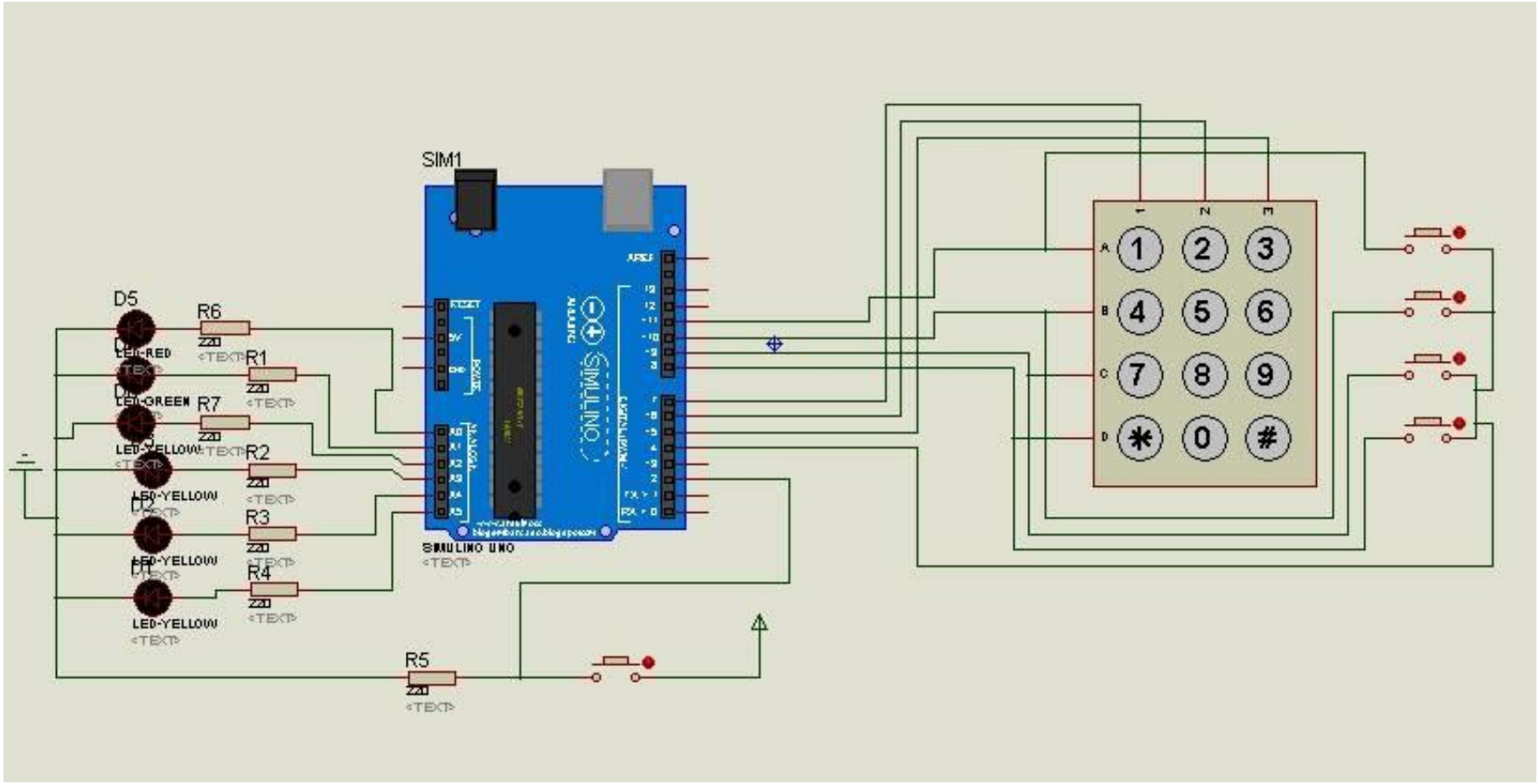


Block Digram of Security System Alert Person by Send SMS

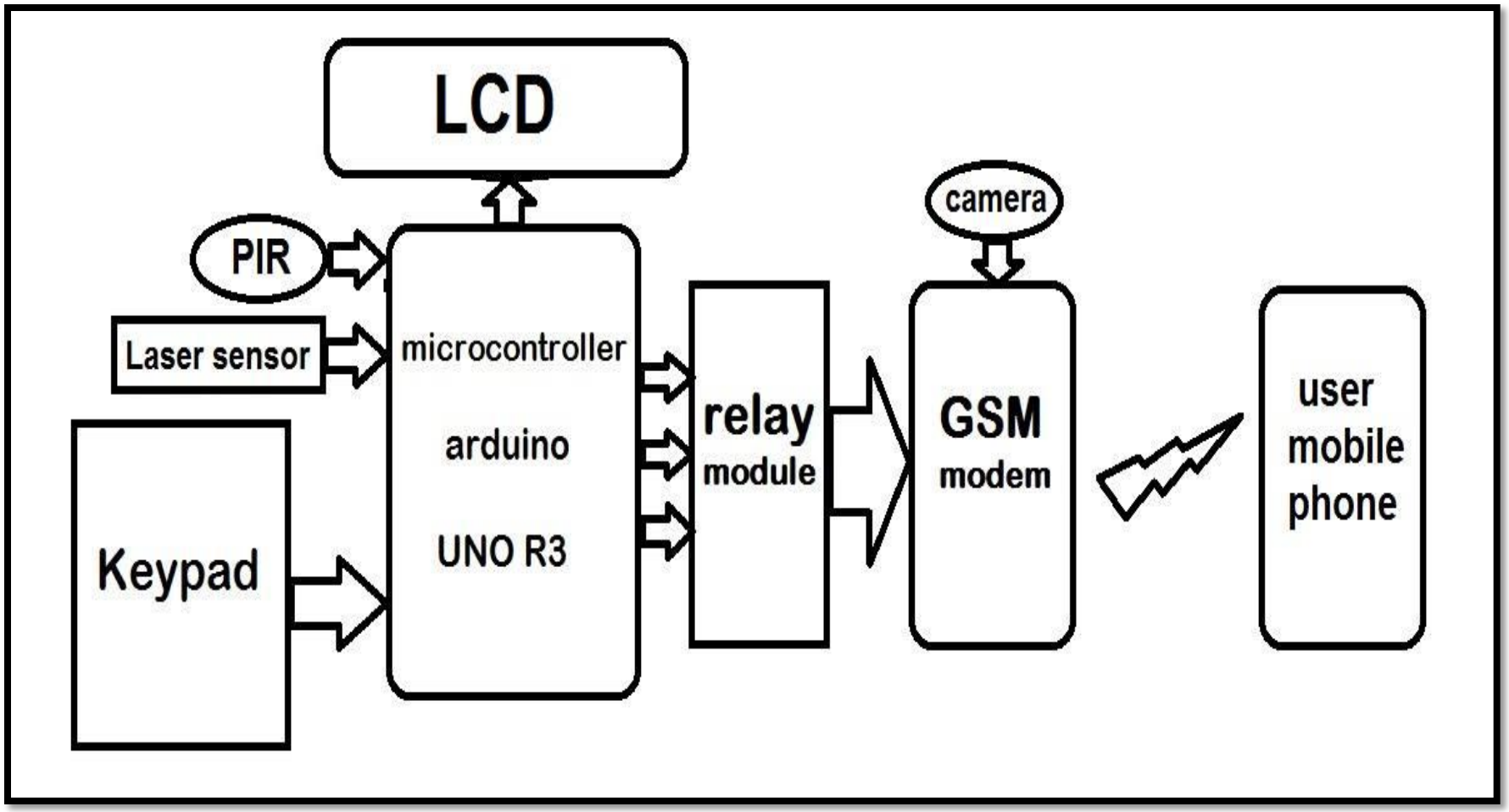
Hardware of Wireless security System Alert Person by Send SMS



Electronic circuit drawn using Proteus

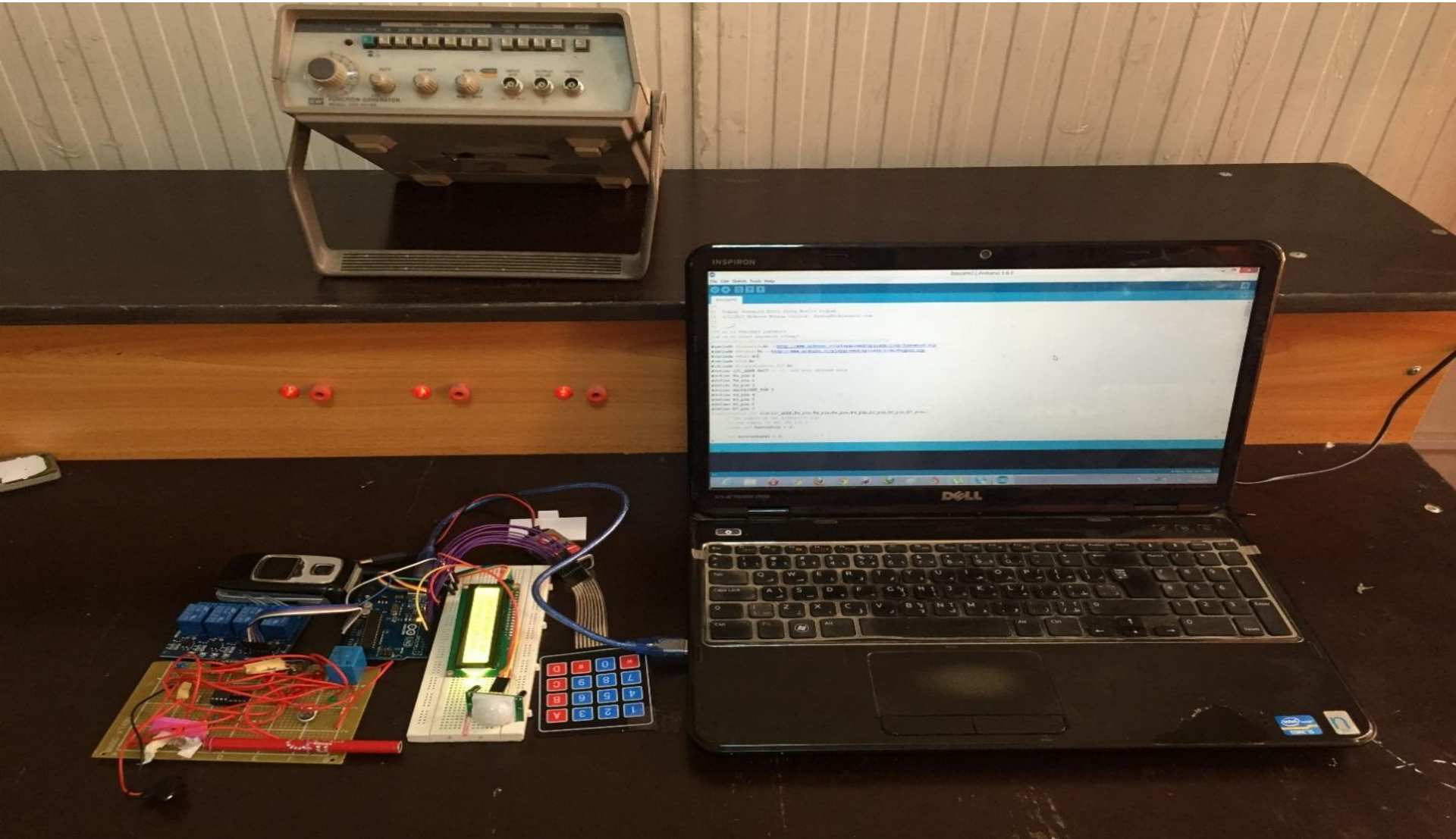


Wireless security system by GSM- MMS



Block Digram of Security System Alert Person by Send MMS

Hardware of Wireless security System Alert Person by Send MMS



SUMMARY

- high layer security system, Reliable and Durable.
- Low power consumption, only 2.4mWatts,
- No need to keep eye on surveillance continuously,
- Highly sensitive LASER sensor for any cutting from burglars or any moving body, each PIR sensors can cover 10–45 meters and More PIRs can be connected parallel for larger space
- Can be used in any building like Home Security System, in Museum or Bank .
- Low cost operating system using Arduino module [AT-mega328] in C programming language and Overall cost effective and parts are easily available on the market.

Thank you