

BANK LOCKER SECURITY SYSTEM WITH PASSWORD AND INTRUDER ALARM

AIM:

Design and Development of Bank locker security system with password and intruder alarm.

PURPOSE:

Security is a prime concern in our day-to-day life. Everyone wants to be as much secure as possible. An access control for doors forms a vital link in a security chain. The microcontroller based digital clock access control system that allows only authorized persons to access Doors. Bank locker needs password for security and it has intruder detection alarm. Here we propose system like bank locker security system with password and intruder alarm.

DESCRIPTION:

This project includes 4X4 Matrix keypad which is connected to Arduino digital pin. Siren and Solenoid lock controlled by relay which is connected to Arduino digital pin. IR sensor also connected to Arduino digital pin.

WORKING:

The system has a Keypad by which the password can be entered through it. To enter password, user needs to press button. Here Arduino plays a major role of taking decision for opening the locker. Here a predefined password is stored in Arduino. Arduino takes password inputs form keypad, if the password is matched then solenoid valve open and close after 5 seconds. It will be displayed on LCD. When we enter the wrong password through keypad then a message on the LCD and siren will turn ON. Also here IR sensor installed inside locker room and if any one entered then it will detect and Siren will ON

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
LCD	:	16X2 LCD Display
Crystal	:	16 MHz
Keypad	:	4X4 Matrix
Lock	:	Solenoid DC electromagnetic Type
Intruder Sensor	:	IR sensor
Relay	:	12V DC Electromagnetic
Power Source	:	12v 2 amp Adaptor

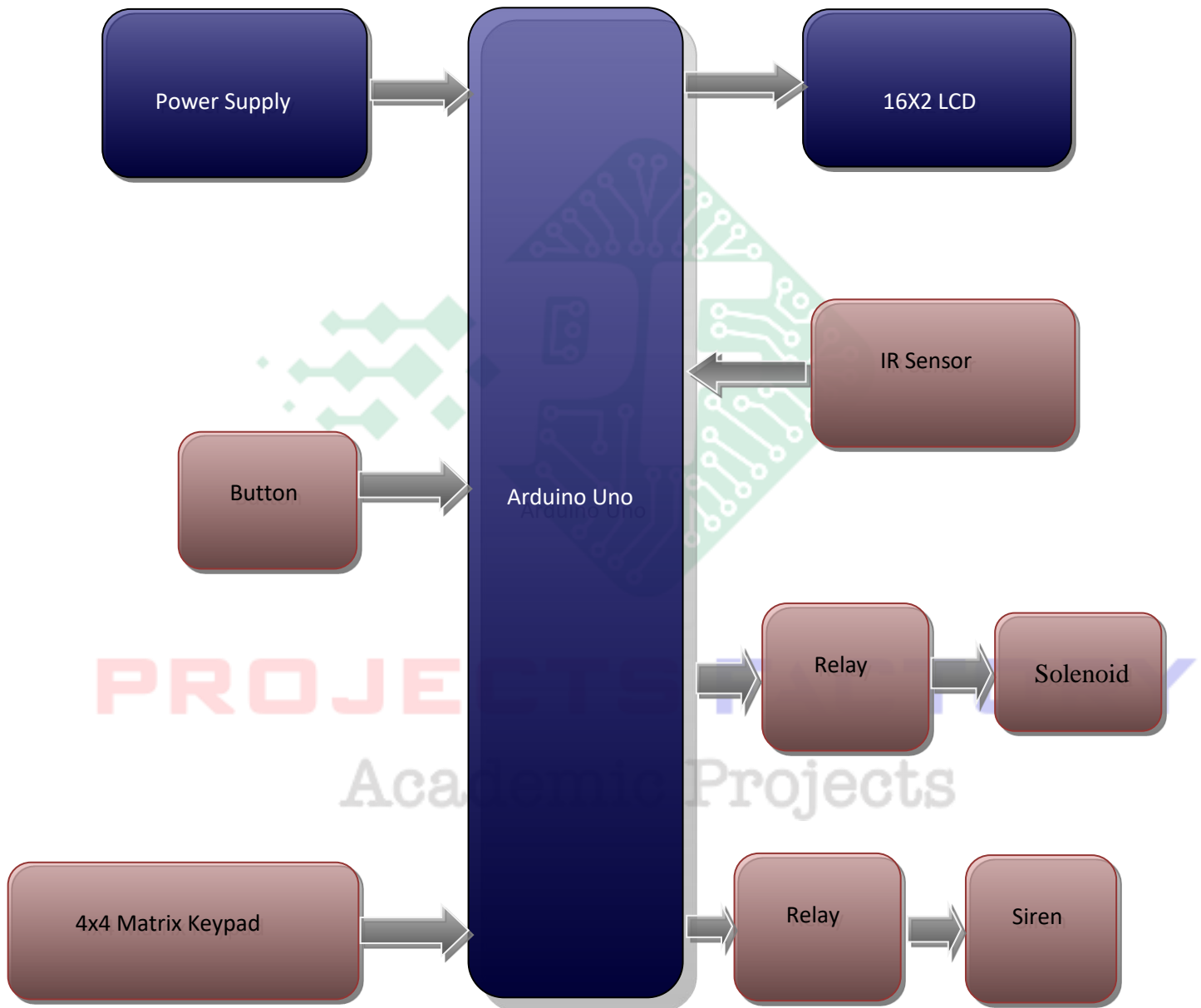
SOFTWARE:

Arduino IDE
Proteus based circuit diagram

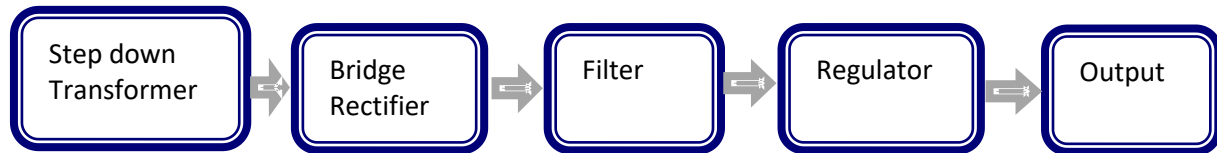
APPLICATIONS:

- Locker Security Applications
- Security Applications

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERED:

- 4X4 Matrix Keypad Interface
- Siren and solenoid lock along with relay interface

PROJECTS FACTORY
Academic Projects