

ZIGBEE BASED GARAGE DOOR CONTROL FROM INSIDE CAR

AIM:

Design and Development of Zigbee based garage door control from inside car.

PURPOSE:

Now days everything becomes smart. Especially smart homes are very lavish and gives you pleasure. Also they save time and avoid manual interaction. Garage door control comes under smart homes and it can control from inside car when reaches near to garage. So here we proposed Zigbee based garage door control from inside car.

DESCRIPTION:

This project includes Zigbee module (HC12), which is connected to Arduino through UART interface. DC motor controlled by l293d which is connected to Arduino digital pins.

WORKING:

In this project we have two sections. One is at garage side which consists of Arduino, Zigbee and garage door control motor. Another one is at car side which consists of Arduino, Zigbee and two buttons. We can control garage door from inside car. By pressing button-1 door will be close. When we press button-2 door will be open. Door status information displaying on LCDs.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
Zigbee Module	:	HC12 - 433MHZ or 2.4Ghz
H-bridge Motor Control	:	L293D
Motor	:	DC 5V
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

Arduino IDE
Proteus based circuit diagram

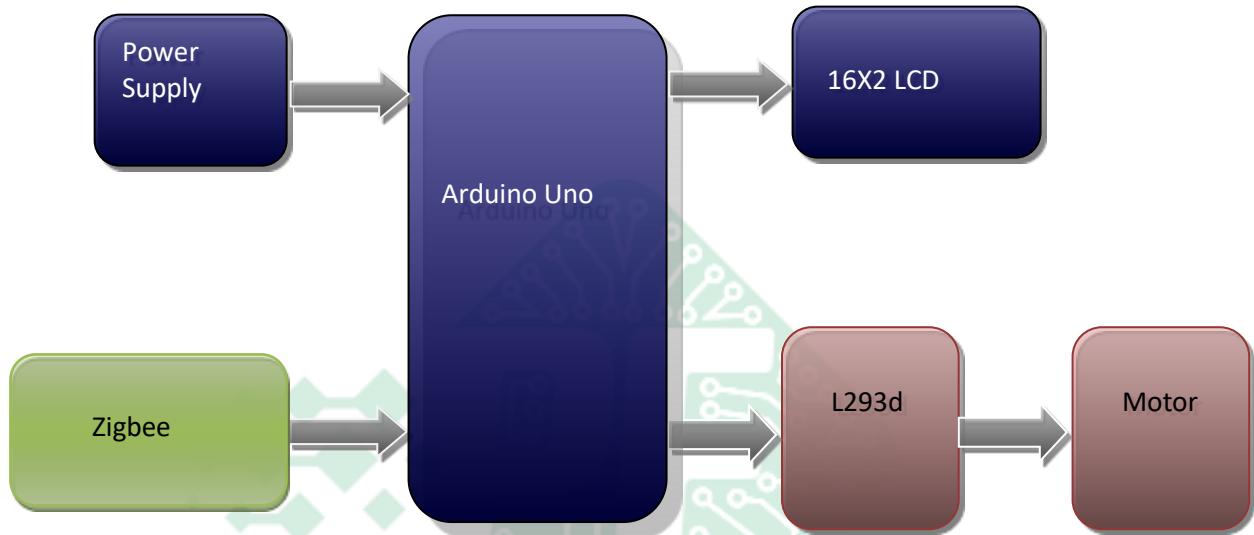
APPLICATIONS:

- Home Applications
- Office Applications
- Parking Applications

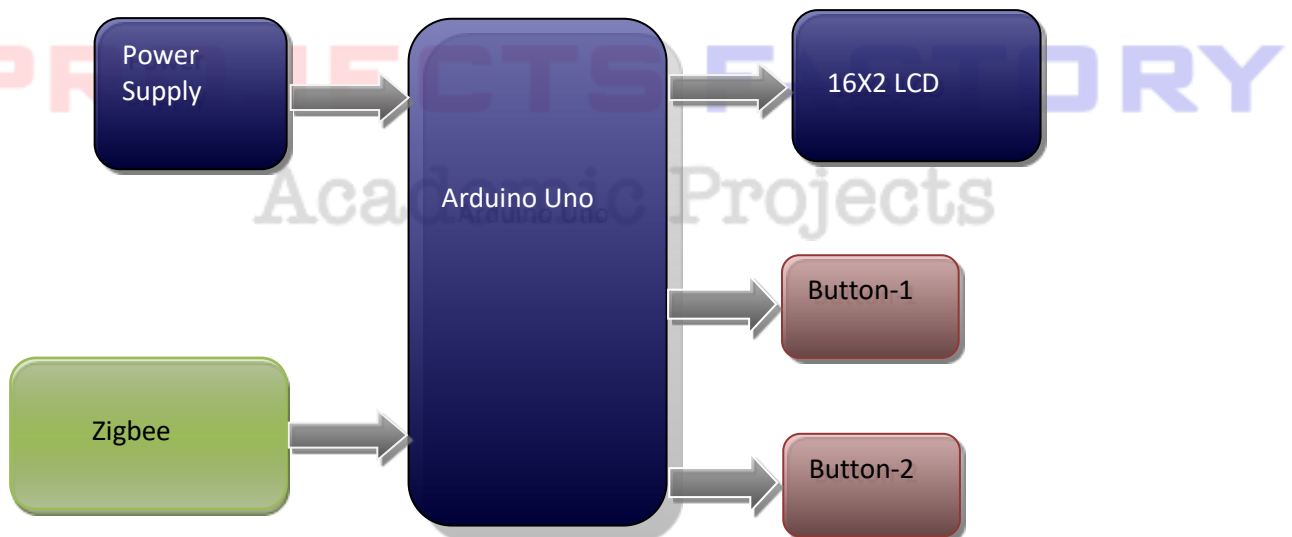
PROJECTS FACTORY
Academic Projects

BLOCK DIAGRAM:

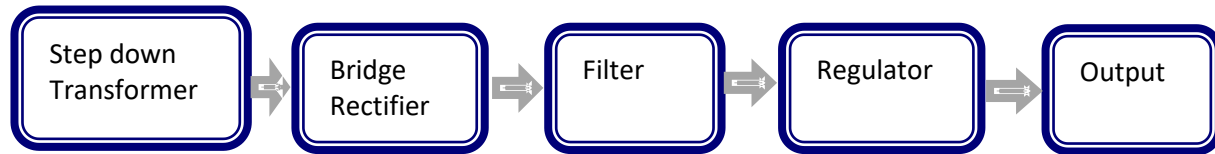
Garage Side:



Inside Car:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERED:

- We have covered Zigbee (433Mhz or 2.4Ghz – HC12) module interfacing
- L293d H-Bridge with DC motor interfacing

PROJECTS FACTORY
Academic Projects