

DC MOTOR SPEED AND DIRECTION USING GSM

AIM:

Design and development of dc motor speed and direction using GSM with Arduino.

PURPOSE:

DC motors are widely used in many electronic applications. DC motors are noiseless and low power consumption. Some applications like actuators, door opening and closing, toys, home applications, Industrial applications. But controlling of DC motor from remote location also helpful for many applications. Here we propose system like DC motor speed and direction using GSM with Arduino.

DESCRIPTION:

This project includes GSM (Sim800c) module, which is connected to Arduino through UART interface. 100 r.p.m dc gear motor controlled through SMS. DC gear motor connected to Arduino through L293d H-bridge IC.

WORKING:

User can control Speed and direction of DC motor using request SMS. Request SMS contains speed and direction fields. Dc motor direction changed by reversing its polarity. Dc motor speed changed by varying PWM cycles. Based on command DC motor adjust its speed and direction. This information displayed on LCD.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
GSM	:	SIM800C
H-bridge	:	L293D
Motor	:	DC 12V
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

Arduino IDE

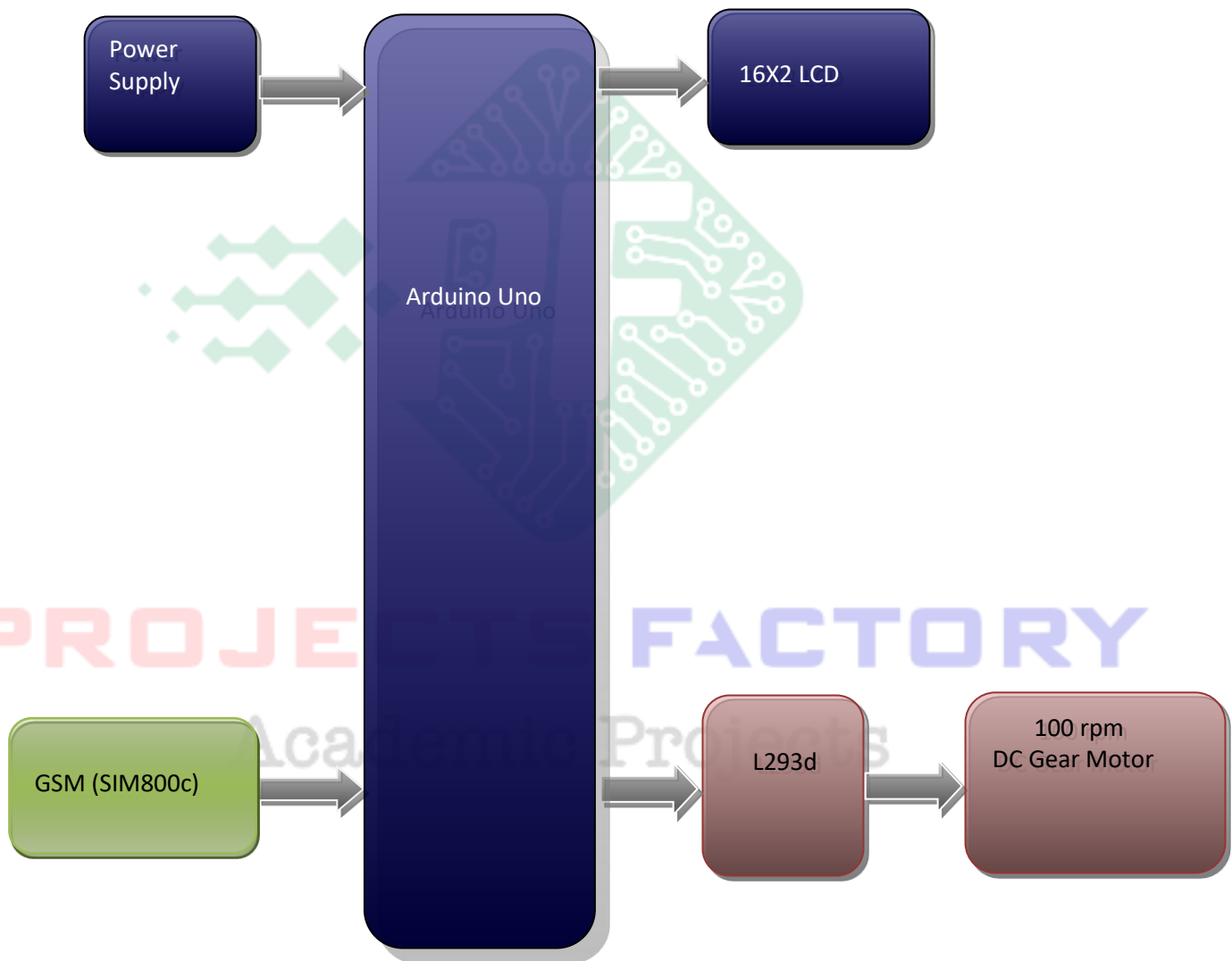
Proteus based circuit diagram

APPLICATIONS:

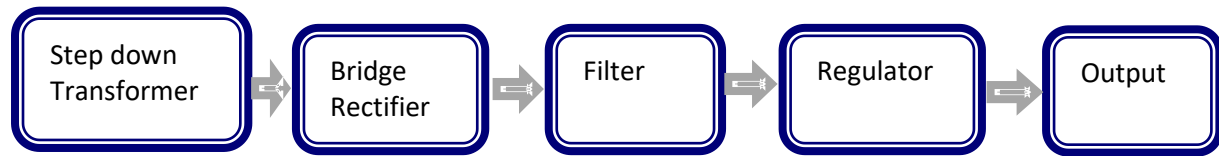
- Industrial Applications
- Home Applications
- Remote Control Doors

PROJECTS FACTORY
Academic Projects

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERED:

- We have covered GSM (SIM800C) module interfacing
- PWM speed and direction control with L293D



PROJECTS FACTORY
Academic Projects