

## **AUTOMATED ALERT FENCING USING GSM AND ARDUINO**

### **AIM:**

Design and development of Automated alert fencing using GSM and Arduino.

### **PURPOSE:**

Agriculture farming is main source of our country. Protection of farming is very important. Especially animals destroying crops in final stages. To protect crops from animals, best option is electric fence. Along with electric fence alert notification is also added advantage to formers. Here we propose system like automated alert fencing using GSM and Arduino.

### **DESCRIPTION:**

This project includes GSM (Sim800C) module, which is connected to Arduino through UART interface. Ultrasonic sensor connected to Arduino digital pins. Fencing circuit controlled by relay which is connected to Arduino.

### **WORKING:**

When any animal comes near to Ultrasonic sensor, Electric fence will be ON. Sensor status displayed on LCD. Buzzer will be ON to intimate farmer. Alert notification SMS will send to registered mobile number. Famer can send request SMS to Arduino to get Ultrasonic sensor (animal presence) status.

## TECHNICAL SPECIFICATIONS

### HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
GSM	:	SIM800C
Detection Sensor	:	Ultrasonic (HCSR04)
Buzzer	:	5V DC
Power Source	:	12v 2 amp Adaptor

### SOFTWARE:

Arduino IDE

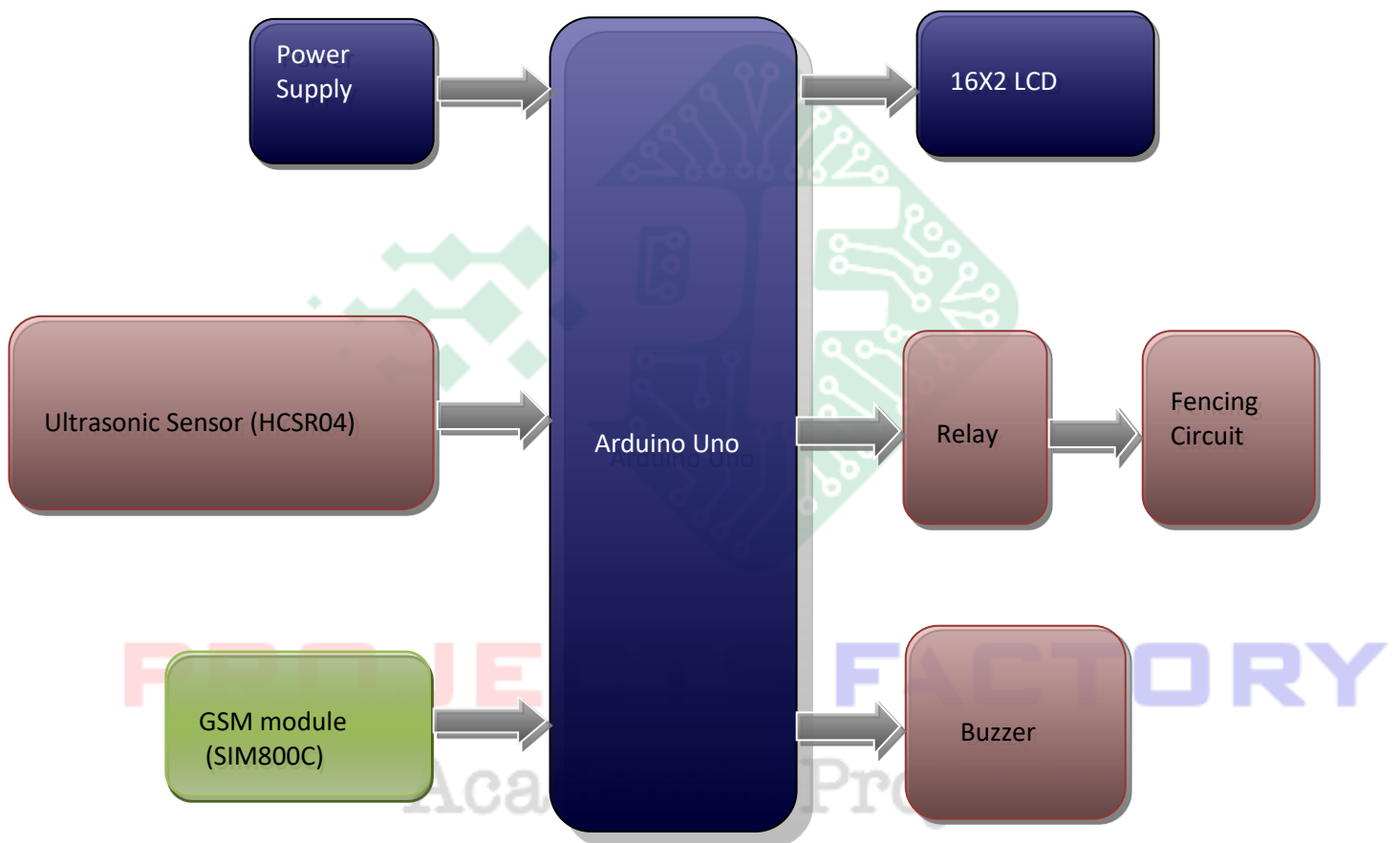
Proteus based circuit diagram

### APPLICATIONS:

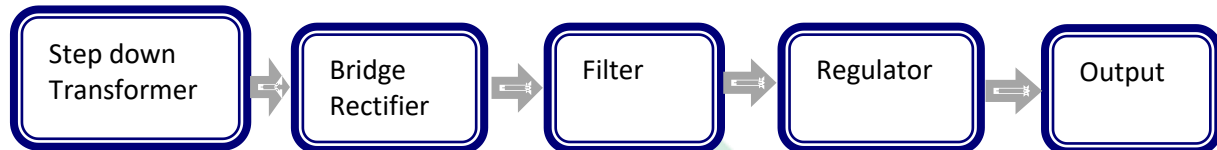
- Farming Security
- Aquaculture Security
- Industrial Security

**PROJECTS FACTORY**  
Academic Projects

**BLOCK DIAGRAM:**



## POWER SUPPLY BLOCKDIAGRAM:



## INTERFACES COVERED:

- We have covered GSM (SIM800C) module interfacing
- Ultrasonic Sensor Interface
- Electric Fence circuit Interface

**PROJECTS FACTORY**  
Academic Projects