

## **GSM GPS BASED AMBULANCE TRACKING SYSTEM**

### **AIM:**

Design and Development of GSM GPS based ambulance tracking system.

### **PURPOSE:**

Ambulances play a major role in emergency conditions. In the medical world, there is a word “Golden hour”. It means in any emergency case, the patient should come to the hospital as soon as possible without delaying. Even 10 minutes of delay causes more problems. General ambulances don't have any smart systems. Adding some advancement to an ambulance will bring extra facilities to patients. Here we propose a GSM GPS based ambulance tracking system. Using this system, we can track an ambulance immediately. Also, it has some extra features.

### **DESCRIPTION:**

This project includes a GSM (Sim800C) module, which is connected to an Arduino through UART. The GPS module is connected to the Arduino through a UART interface. Switches are connected to the Arduino digital pins.

### **WORKING:**

This system can be installed in an ambulance. It sends GPS location to a registered mobile number for every time interval like 60-120 seconds. If anyone wants to know ambulance location, they can get the location by sending a request SMS. Also, this system contains three buttons to intimate three kinds of necessities. After taking a patient into an ambulance based on needs, they can inform the hospital by pressing buttons. The first button is for need blood, the second button is for need oxygen, and the third button is for need ventilator. Using these keys, we can intimate the hospital. We can track an ambulance by sending a request SMS.

## TECHNICAL SPECIFICATIONS:

### HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
GSM	:	SIM800C
GPS	:	NEO-6M
Switch	:	Two pin button
Power Source	:	12v 2 amp Adaptor

### SOFTWARE:

Arduino IDE

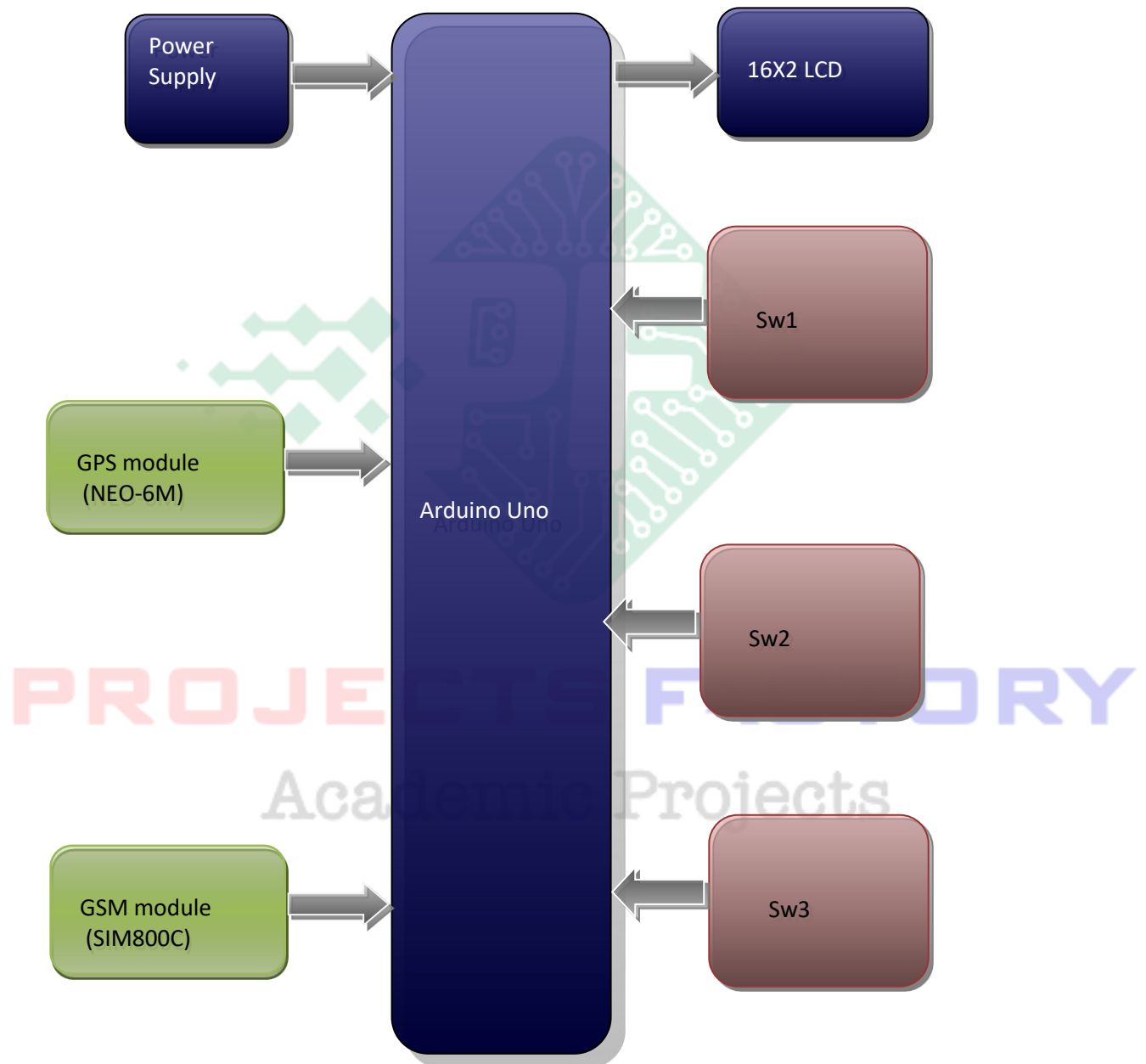
Proteus based circuit diagram

### APPLICATIONS:

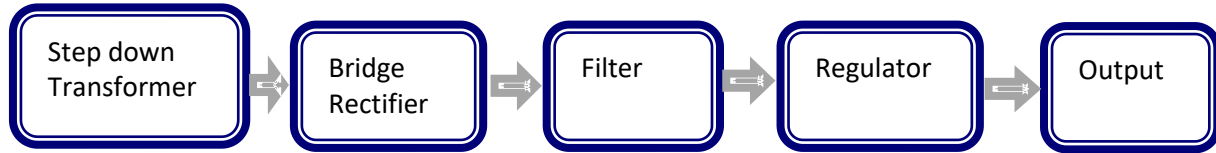
- Medical Services
- Smart Ambulance

**PROJECTS FACTORY**  
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**BLOCK DIAGRAM:**



## POWER SUPPLY BLOCKDIAGRAM:



## INTERFACES COVERED:

- We have covered GSM (SIM800C) module interfacing
- GPS (NEO-6M) module interfacing
- 2 pin keys



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