Anti-Fuel Theft Checker System

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Abstract: *The petroleum products are non-renewable resources. The best possible use and dissemination is significant assignment to endure these items. Our framework might be first methodology toward security of petroleum products distribution such as petrol, diesel and kerosene. This undertaking has GSM modem which send message to owner vehicle when there is fuel theft going on. Many time we have heard or some of us have already faced that petro from their bike or cars has been stolen. Main intension of this project is avoid such situation. Right now have utilized a level sensor to distinguish petroleum level in the oil tank. On the off chance that level goes underneath the specific level this sensor gives the specific sign to MAX232. At that point MAX232 turns on the ringer and message to vehicle or bicycle proprietor.*

Keywords: GSM, microcontroller 89C52, flow sensor, keypad.

1. INTRODUCTION

The oil based commodity is one of the significant and uncommon making of the nature as they are non-sustainable asset. These assets. These assets ought to be utilized cautiously. The task we have created which will have used to give security to the fuel appropriation and helps the information keeping of the disseminated fuel. The progression of the task huge scope can help monetarily to the business in a roundabout way. The primary motivation behind the task fulfils all the requirements identified with secure appropriation of the mechanical item

FIGURE 1. Block diagram of anti-fuel theft checker system
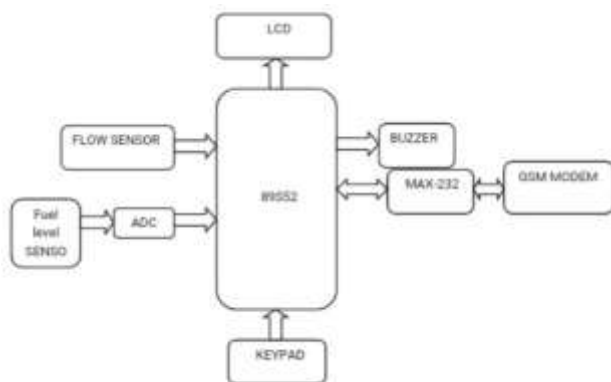
2. WORKING OF SYSTEM

Micro-controller 89S52 is the heart of the project. Flow sensor is used for the measurement of the flow of the petrol in the tank, to check whether the petrol is filled correctly according to the amount entered by user through keypad. Keypad is used to enter the amount of petrol in the fuel indication mode.

There is button on keypad for the mode indication.

There are two modes: 1] Fuel checker

2] Theft indication.

In the fuel checker mode, there is checking of fuel is done. i.e. If fuel is filled according to the entered amount or not. For that purpose, we are using flow sensor. When user enters the quantity of fuel, solenoid valve is made open to supply the fuel and flow sensor measure if the quantity of fuel supplied is equal with the entered quantity or not. If it filling of liquid is not complete then buzzer will on.

Second mode is the theft identification mode. In this mode, level sensor checks the level of the fuel. If level of fuel changes in standing position of vehicle that is when vehicle is stop, then buzzer will get ON. At the same time message will be send to the particular person i.e. to the owner of the vehicle.

3. DESCPRITION OF COMPONENTS

3.1. MICROCONTROLLER 89S52

The AT89S52 originates from the well-known 8051 group of Atmel microcontroller. It is an 8 piece CMOS microcontroller with 8K as blaze memory and 256 bytes of RAM. Since it is like the reliable 8051 engineering these microcontrollers are according to the industry standard. It has 32 I/O pins including three 16 piece clocks, outer hinder, full duplex, sequential port, on chip oscillator and clock hardware.

The microcontroller likewise has working mode, perfect mode and shut down mode which makes it reasonable for battery worked application. Scarcely any extensive disadvantage of the microcontroller is that it doesn't have in assembled ADC and doesn't bolster SPI or 12 dc convention, anyway you can use outside module for the equivalent.

3.2. GSM MODULE

GSM is a flexible correspondence modem; it speaks to overall casing work for compact correspondence. GSM is an open and modernized cell advancement used for transmitting adaptable voice and data organization work at the 850 MHz and 900 MHz, 1800 MHz and 1900 MHz repeat gatherings.

3.3. LEVEL SENSOR

A level sensor is a gadget for deciding the level or measure of fluids, liquids or different substances that stream in an open or close framework. There are two sorts of level estimation, to be specific, non-stop and point level estimation. Consistent level sensor is utilized for estimating levels to a particular point of confinement, however they give precise outcomes. Point level sensors, then again, possibly decides whether the fluid level is high or low. The level sensors are normally associated with a yield unit for transmitting the outcomes to an observing framework. Current innovation utilizes remote transmission of information to the observing framework which is helpful in raised and hazardous area that can't be effectively gotten to by basic labourers.

3.4. FLOW SENSOR

Flow meters measure either volume or mass. The flow (Q) is equivalent to the cross-sectional territory of the pipe (A) in a volumetric flow meter, and the velocity of the flowing fluid (v): $Q = A * v$. The mass flow can be communicated in a mass flow meter as follows: $\dot{m} = Q * \rho$ (where Q is the volumetric flow rate and ρ is the fluid density.

3.5. KEYPAD

Keypad is a great deal of catch engineered in a square or a pad which bear digit , picture or altogether letters pad for the most part containing numbers are known as numeric keypads . Numeric keypads are found or alphanumeric consoles and on various devices which required for the most part numeric information , for instance smaller than normal PCs , press catches telephone , candy machine , ATM , purpose of offer devices, blend bold and electronic portal locks.

3.6. LCD DISPLAY

LCD were a major jump in term of the innovation they supplanted, which incorporate light discharging diode and gas plasma shows. LCD permitted show to be a lot slenderer than cathode beam tube innovation. LCDs expand substantially less force than LED and gas show since they take a short at the standard of blocking light instead of emitting it. Where a LED discharge light the fluid precious stone in a LCD produce a picture utilizing a backdrop illumination.

3.7. MAX232 IC

The MAX232 is a coordinated circuit initially made in 1987 by saying incorporated items that changes over signs from a TIA232 (RS232) sequential port to flag reasonable for use in TTL perfect advance rationale circuits. The MAX232 is double transmitter/ double collector that normally is utilized to change over the RX, TX, CTS and RTS signal.

The drivers give TIA-232 voltage level yield (about ±7.5 volts) from a single 5-volt supply by on-chip siphons and outside capacitors. This makes it helpful for actualizing TIA-232 in gadgets that in any case needn't bother with some other voltages.

The recoups decreases TIA-232 inputs, which might be as high as ±25 volts, to standard 5 volt TTL levels. These collectors have a normal edge of 1.3 volts and a run of the mill hysteresis of 0.5 volts.

3.8. BUZZER

A bell or beeper is a sound flagging gadget, which might be mechanical, electromechanical, or piezoelectric normal uses a ringer and beeper incorporate alert gadgets, clocks and affirmation of client info, for example, a mouse snap or keystroke.

4. ACKNOWLEDGEMENT

5. CONCLUSION

The proposed system will help us to fuel theft and unauthorized access of the vehicle to solve problem. Our system will periodically inform and vehicle access information on the fuel level. Hence the larceners results rather than the fuel or to the vehicle theft by chance in the situation and provide the overall protection. The messages are provided to the owner in relation to the fuel level in the vehicle in periodic manner. The proposed rule also avoids the other way to fuel theft of fuel tank fault detection system. The numeric lock system is to open authentication for the fuel in the vehicle fuel tank. Finally the system at any time. The wireless technology will enable the vehicle owner, the vehicle with the mobile phone of monitor anywhere, anytime.

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