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Driver Information System

Abstract

Many a times the warning sign on the road sides becomes difficult to watch for the drivers and the driver may sometimes miss the warning notes. These warning notes may be speed breaker ahead or narrow bridge or even accident zone etc. This becomes tedious during rainy seasons and at nights. Sometimes the boards may be so dirty and the driver may not read anything and even if he tries to read it with a wide eye there is a chance for the drive to lose concentration on the road.

For this a portable unit is placed inside the vehicles and it communicates with the roadside systems at all times. So the position of each vehicle can be very easily known by the roadside system and also the system has all the details of roads and emergency station such as hospitals stored in it. So whenever the information is needed such information is automatically passed on to the vehicle from roadside system and the driver in the vehicle can get a clear idea of the contents received.

The microcontroller used is a high Speed PIC microcontroller for fault free operation. It has a variety of advantages over conventional old microcontrollers such as RISC architecture, larger memory word, fast operation and a host of inbuilt features such as ADC, communication protocols etc.,.

An GPS system is placed along with the microcontroller. The GPS system gives the exact position of the vehicle by giving out its latitude and longitude. The microcontroller at all times receives the information and displays the information using the dedicated LCD display. Further the same is used to announce to the driver about the hurdles such as speed breakers. This voice alerting system helps the drivers to concentrate on the road without even worrying about the sign boards near the road.

Existing System

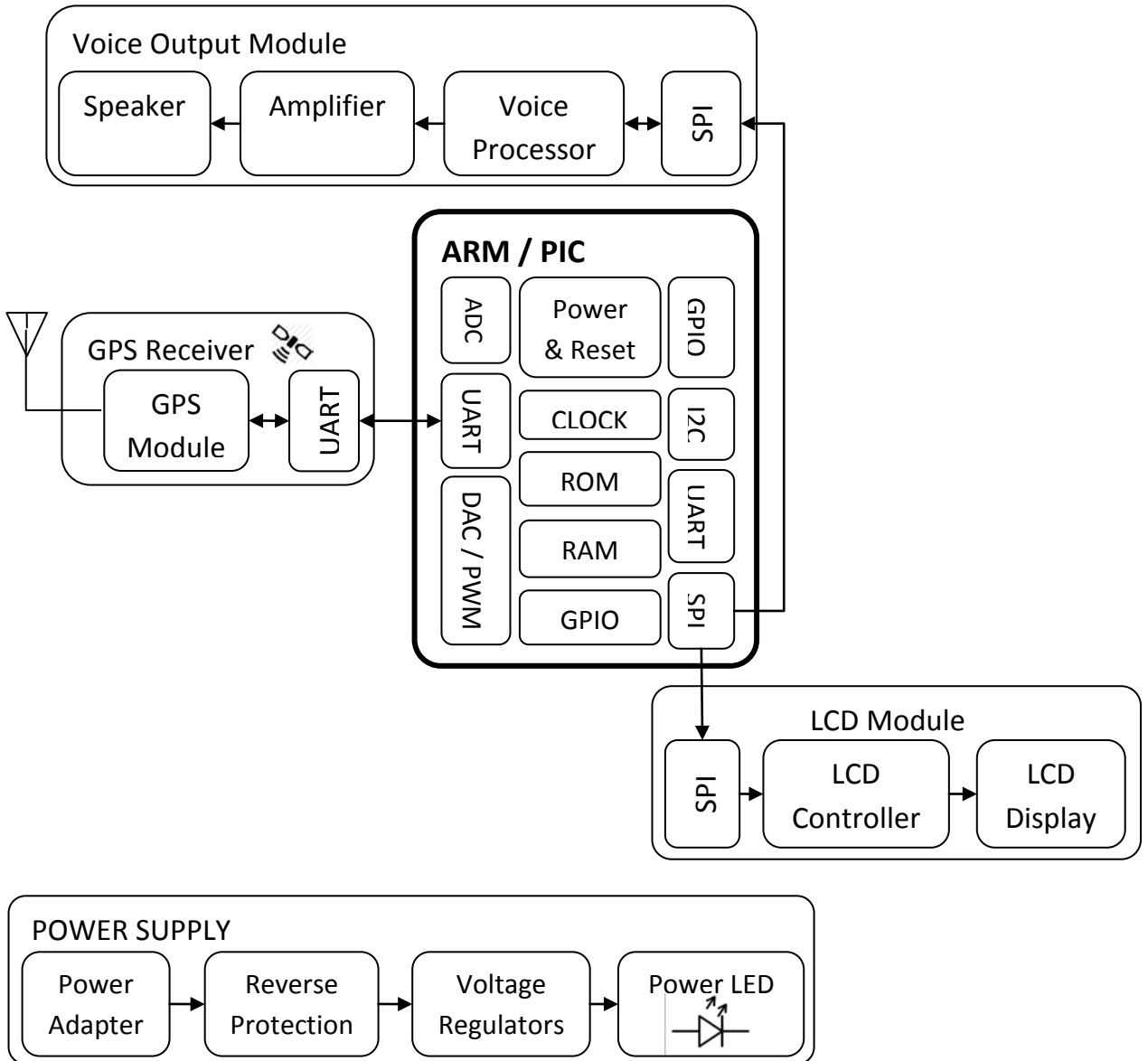
1. In the existing system we have to look at the sign boards for direction.
2. Drivers will not be aware of speed breakers at night.

Proposed System

1. A portable unit is placed inside the vehicles and it communicates with the roadside systems at all times
2. A voice announcement is given to the driver about the hurdles such as speed breakers

Block Diagram

VEHICLE MODULE-INFORMATION DISPLAY UNIT



- LPCXpresso IDE / MPLAB IDE
- EAGLE
- Or cad
- Embedded C

Hardware Required

- ARM LPC11U67 / PIC18F45K22
- GPS Receiver
- Voice processor
- LCD Display