

Location Based Advertisement system with Voice announcement

The aim of the project is to construct a system using GPS and voice circuit that can identify its current location and based on that it announces the advertisement assigned for that location automatically. Also, the project has a provision of dynamically storing locations along with current location coordinates display on LCD.

Location-Based Advertising (LBA) is a new form of marketing communication that uses location-tracking technology to target consumers with location-specific advertising on their mobile devices. LBA refers to marketer-controlled information specially tailored for the place where users access an advertising medium, Imagine if a tourist is in Hyderabad with friends and are looking for a restaurant; he can just use this device to locate the hotels in nearby location.

This project consists of Location Identification device called GPS Receiver and a LCD for displaying the current location coordinates and voice based advertisement. The GPS receiver gets the current location in the form of Latitude and Longitude and this information is given to the Microcontroller. Microcontroller processes this data and compares the location information with the existing location store. Upon finding the location in the database, it makes the voice based advertisement triggered from Voice circuit. The Microcontroller is programmed using Embedded C language.

The features of the project are:

1. Automatic identification of location.
2. Advertisement based on location.
3. Voice based advertisement.
4. Location coordinates displayed continuously on LCD.
5. Provision for dynamic location storing.

The project provides the following learning's:

1. GPS technology.
2. Conversion of AC supply to DC supply.
3. LCD displays.
4. Embedded C programming.
5. PCB design.

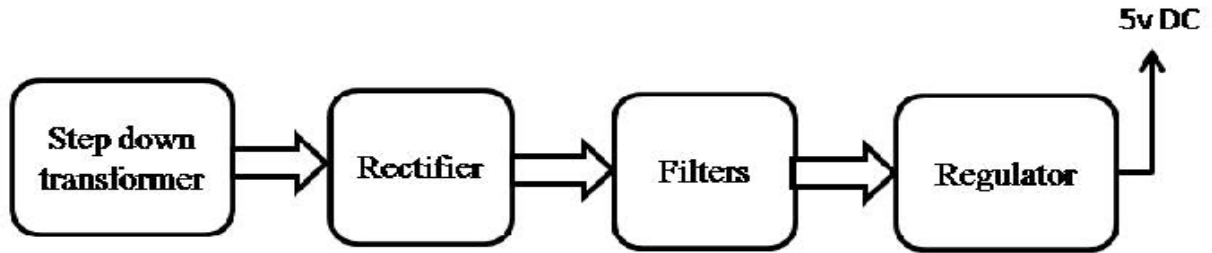
The major building blocks of this system are:

1. Regulated Power Supply.
2. Microcontroller.
3. GPS Receiver.
4. LCD with driver.
5. Reset.
6. Control button.
7. Voice circuit.
8. Crystal oscillator.
9. LED Indicators.

Software's used:

1. PIC-C compiler for Embedded C programming.
2. PIC kit 2 programmer for dumping code into Micro controller.
3. Express SCH for Circuit design.
4. Proteus for hardware simulation.

Regulated Power Supply:



Block Diagram:

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