CELL PHONE OPERATED ROBOTIC VEHICLE

ABSTRACT

The project is designed to develop a robotic vehicle that is controlled by a cell phone. DTMF commands from a phone are sent to another cell phone which is mounted on the robot. These commands are fed to a microcontroller of 8051 family to operate the vehicle movement through motor interface.

The main scope of project is to send commands from one cell phone to be received by another cell phone mounted on the robot to receive the DTMF (Dual Tone Multi Frequency) mode commands which are then decoded by a DTMF decoder. The corresponding codes are then fed to a microcontroller, programmed to recognize those codes to operate 2nos DC motors through motor driver IC for any direction movement as per the sent commands from sender’s mobile. The motors are controlled using motor driver IC which is interfaced to the microcontroller. It uses microcontroller from 8051 family and a battery for power source.

Further the project can be enhanced by interfacing it with additional motors for multipurpose activity. For example, it can be developed into pick n place robot or fire fighting robot with water pump etc.
BLOCK DIAGRAM

HARDWARE REQUIREMENTS:
8051 series Microcontroller, Crystal, DTMF Decoder IC, Motor Driver IC, DC Motors, Batteries, Robot Body.

SOFTWARE REQUIREMENTS:
Keil compiler
Language: Embedded C or Assembly.