WIRELESS ROBOT WITH SPEED CONTROL

ABSTRACT

A robot is a mechanical or virtual artificial agent. In practice, it is usually an electro-mechanical system which, by its appearance or movements, conveys a sense that it has intent or agency of its own. The word robot can refer to both physical robots and virtual software agents, but the latter are usually referred to as Robots. There is no consensus on which machines qualify as robots, but there is general agreement among experts and the public that robots tend to do some or all of the following: move around, operate a mechanical arm, sense and manipulate their environment, and exhibit intelligent behavior, especially behavior which mimics humans or animals.

This project is built on 8051 micro controller; this project is a robot based project on which we will be interfacing speed control circuit. The speed control circuit is controlled using a micro controller; the control is driven through a wireless transmitter and receiver. The project consists of two modules transmitter and a receiver. The transmitter module consists of navigation buttons. Each button on the transmitter is assigned with a unique operation to be performed by the robot, like forward, back ward, right, and left and speed controls.

This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

APPLICATIONS:

- Industrial applications
BLOCK DIAGRAM:

TRNSMITTER SECTION:

- Power Supply
- Switch 1
- Switch 2
- Switch 3
- Switch 4
- Switch 5
- Switch 6

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RF Encoder
HT12E

Switch 7

Switch 8

Switch 9

RF Transmitter
RECEIVER SECTION:

POWER SUPPLY BLOCK DIAGRAM: