THERMAL ANALYSIS ROBOT

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, which is interfaced with a temperature sensor, the temperatures sensor continuously monitors the temperature and when it finds a high temperature area it will make a buzzer high, the movement of the robot is fuzzy and autonomous. Along with the buzzer at the robot, the same information is also transmitted over to a remote receiver where there will be an LCD and a buzzer too. For wireless communication we use RF 433 Mhz modules.

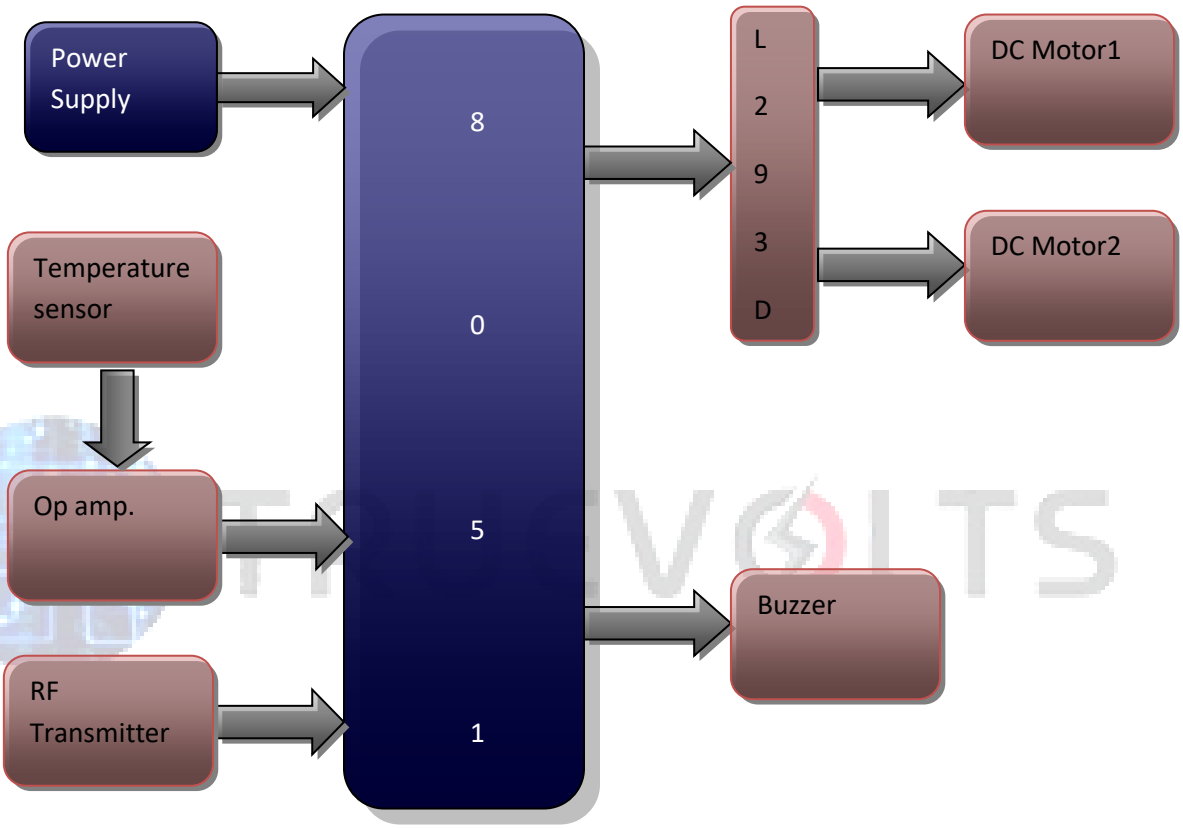
This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Full wave bridge rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

APPLICATIONS:

- Robotics
- Automatic control systems

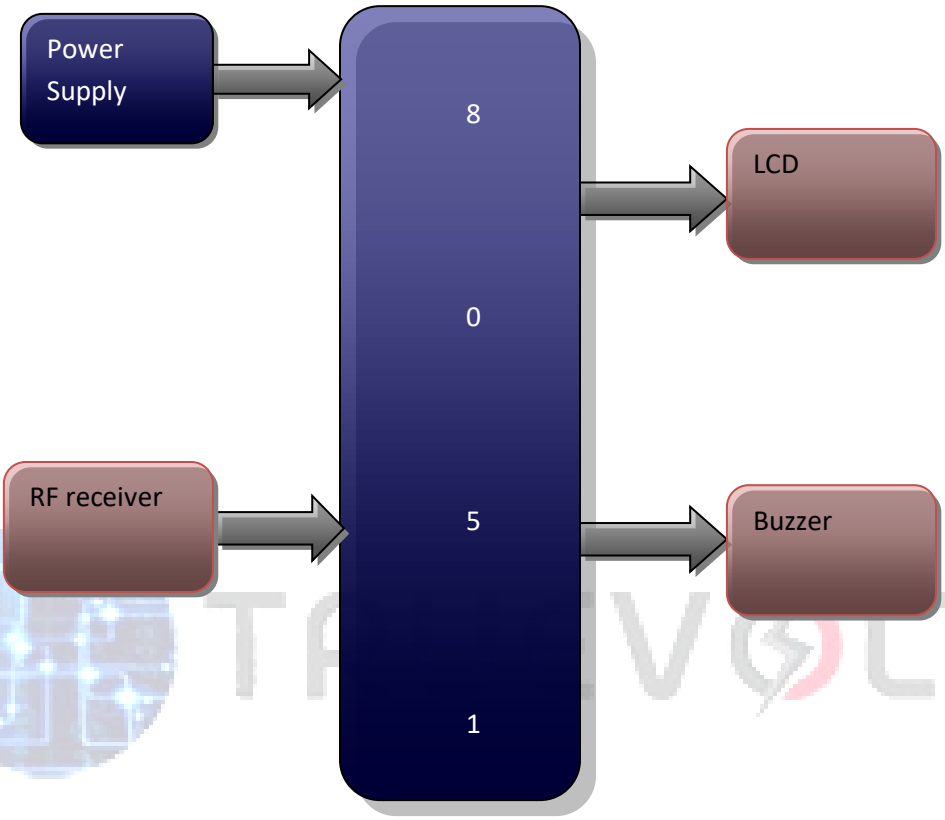
BLOCK DIAGRAM:

Transmitter



BLOCK DIAGRAM:

Receiver



POWER SUPPLY BLOCKDIAGRAM: