
METAL DETECTING 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; this project is housed on a robot base, which moves forward, this robot base is mounted with an inductive metal detector. When any metal is detected on its way, then a high signal is sent to the micro controller which in turn makes a buzzer high and makes the robo stop. L293D is used to drive the motors.

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.

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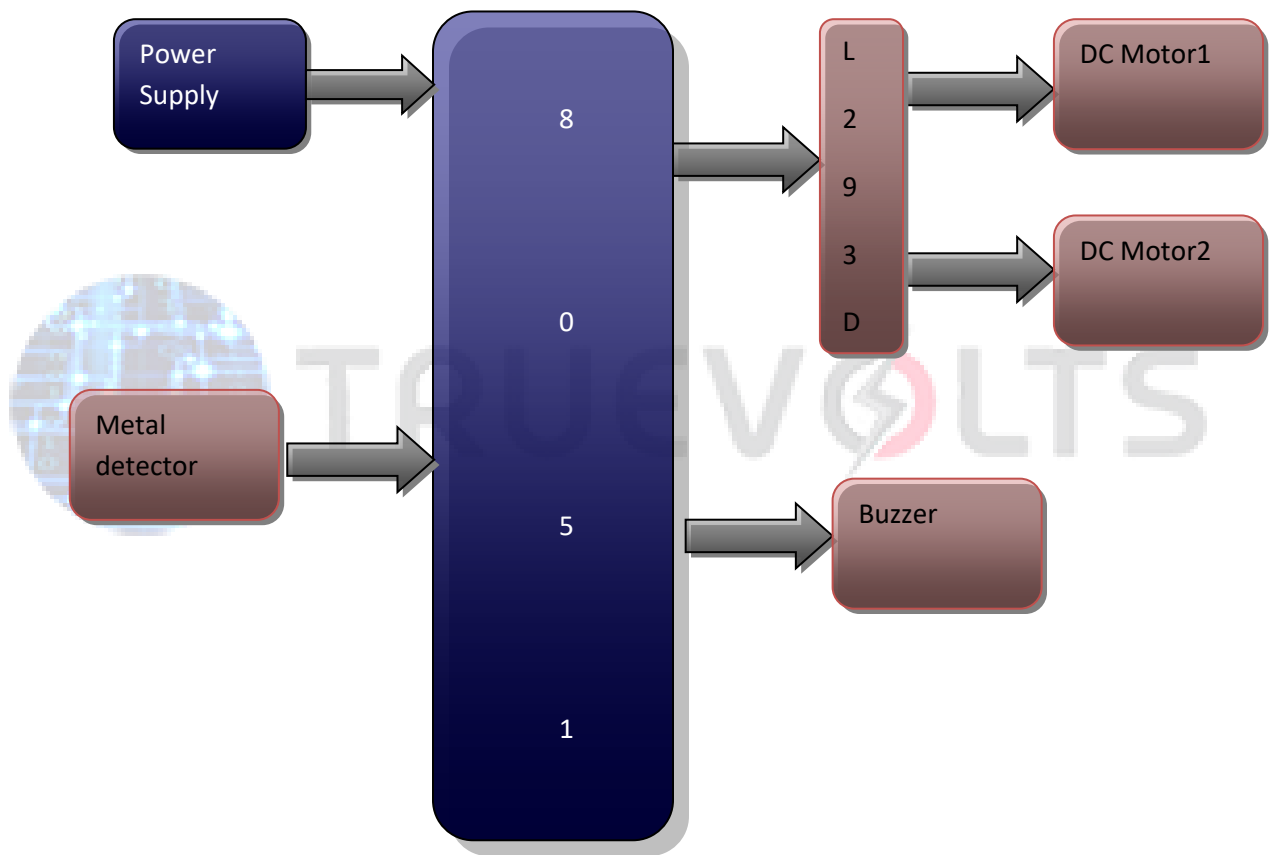
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APPLICATIONS:

- Robotics
- Automatic control systems

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



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