**A PROJECT SYNOPSIS**

**On**

**PC Based ROBO CAR**

**~~~~~~LOGO~~~~~**

**Submitted**

**By**

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**ABTRACT:-**

The advent of new high-speed technology and the growing computer capacity provided realistic opportunity for new robot controls and realization of new methods of control theory. This technical improvement together with the need for high performance robots created faster, more accurate and more intelligent robots using new robots control devices, new drives and advanced control algorithms. This project describes a new economical solution of robot control systems. The presented robot control system can be used for different sophisticated robot applications. The control system consists of a PC, a microcontroller that collects data from the PC and control the robot. The intelligent control software, which has been developed using high-level programming language (Embedded C) using software (Keil UVision). A complete solution of a robot control solution is presented in this project using our PC/Laptop. The robot was fully controlled by the PC and the commands from the PC were received by the microcontroller. The DC geared Motors, which was embedded in the robot moves the robot in different directions. This robot can be used in military as well as household applications.

**PROBLEM IDENTIFICATION:-**

We have seen many continuous sensory Automatic robots in our applications yet. Then we have seen the Robots which are controlled by wireless media like Infrared, Radio Frequency (RF) etc… which perform specific movements accordingly..But now we want to enhance this idea of robotics up-one more level, by introducing the role of our Personal Computers/Laptops i.e If it becomes possible to control the robot using PC then we can have more applications onto it. For ex – We can control our robot with PC as well as can perform other function too like security, additional features because of increase in number of inputs from keyboard etc.

**PROJECT REQUIREMENT:-**

* Software:-
* Keil uVision 4 for programming
* Proteus Professional Suite for Simulation
* Hardware
* General Purpose PCB
* AT89C51 with DIP 40 Pin Base
* L293D with DIP 16 Pin Base
* Max 232 with DIP 16 Pin Base
* RS232 female connector
* RS232 Cable
* DC geared Motors
* Chassis
* Castrol Wheel
* Wheel
* 10K Resistance
* 220 ohm Resistance
* Crystal(11.0592Khz)
* 33pf ceramic Capacitors
* 10uf Electrolytic Capacitors
* 2 pin micro switches
* Connectors

**Objectives Of Project:-**

The objective of this project is to make our present world more flexible in terms of applications i.e once it got interfaced with our Personal computer/Laptop then more and more applications can be done with the help of PC. With this our robot will become more flexible, can handle more applications at a time plus it will be more user friendly.

**Desirable O/p and Possible utility for user:-**

The desired output can be seen after completion of Project. The advantage of this project will be its flexibility, as it controlled by the PC so work will become more easier than before, which will also increase the number of applications too. For example- Once we will be able to control robot with PC, we can also control any of our home appliances too very easily, which further increase its application area.

**Work Plan:-**

* Firstly we will design the circuit of Project, by interfacing different components/IC’s
* Then we will do programming on our software and generate the desired hex file.
* Then we will do our Simulation to check the proper functioning of program.

**Future Enhancements Possible:-**