

Autonomous and Manual Control robot

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Abstract- This paper explores the implementation of Bluetooth technology in mobile robots, to give robots the capability to move around using Bluetooth signal given transmitted by Bluetooth enable Android smartphone. Some powerful algorithm is stored inside the microcontroller. And robot also moves autonomously using IR sensors.

I. INTRODUCTION

Autonomous and Manual control robot is the prototype project idea is to design a kind of robot vehicle to do some kinds of task where human may takes a lots of time and risk or not capable to do the take like to lifting heavy load, some rescue site where human hand is unable to reach.

This project is work sometime autonomous in some special arena or condition and can do manual control in every possible area. Our robot vehicle has a special robotic arm which can control manually through a hand glove using wireless RF technology and Bluetooth technology, so it going to help in some area where human may in risk because we can control robot wirelessly from certain range of wireless sensor.

II. OBJECTIVE

Today's world there is many areas where works are very hard, time consuming and risky. Many times human life also in danger like military area, rescue site, industries etc. The main objective behind this prototype project is to provide the solution to rescue site, military area and industry area for example suppose there is one rescue site where roads and buildings are destroy because of some natural digester happened due to this human is unable to reach then we can use our project wirelessly from save site.

III. LITERTURE RE VIEW

We observe that now a day's in military, industry and rescue site the tasks are very hard, risky and very time consuming so we decide that to build a kind of robot vehicle which can provide the solution for this kinds of sites.

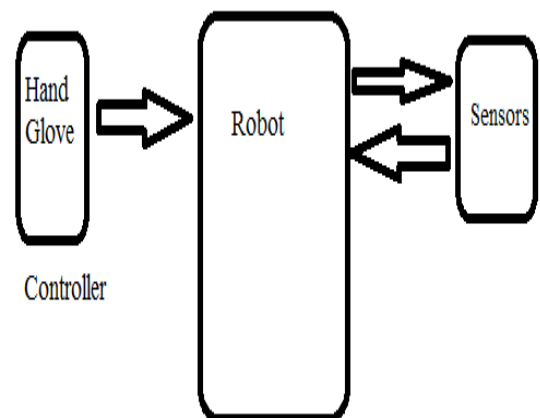
According to situation and working site we can do some changes and then it can able to solve the problem related that site of work.

IV. PROPOSED WORK

A. Motivation for proposed work :

After the observation of the various different sites and difficulty in that sites we decide to provide some solution to that difficulty.

B. Data flow Diagram



C. INTERMEDIATE WORK PROCEDURE

Our project having embedded system and sensors. System is communicated with the different sensors by means of code which is inside the microcontroller flash memory. When any function or activity is going to be performed by the system then actually high level language code is converted into binary i.e. machine level code and all the command is executed.

V. Project work methodology & Time-line to be employed:

Our project works on RF and Bluetooth technology using RF 433 MHz RX-TX or Bluetooth HC-05 modules. First we pass the instruction through microcontroller then this digital signal is converted to analog signal. The analog signal is transmitted using TX module connected with microcontroller in form of radio signal. This analog signal is received by RX module which is connected to microcontroller then this analog signal is again converted into digital signal to do the required task.

VI. FUTURE SCOPE

In future we can use the GPS module and service to increase the range to controlling robot.

VII. CONCLUSION

Our prototype project is going to help some area where work is difficult and risky. We provide the same level of solution to the problem.

VIII. REFERENCES

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