

EDOG

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ABSTRACT

This project is designed to develop a robotic vehicle named E DOG Robot using RF technology for remote operation attached with webcam application for monitoring purpose. The robot along with wireless camera can wirelessly transmit real-time video and will give confidential information regarding opposite parties. The commands are sent to the receiver, at the transmitter side with pushbuttons, to control the movement of the Robot to move forward, backward and left or right. At the time of war where it can be used to collect information from the enemy terrain and monitor that information at a far secure area, and safely devise a plan for the counter attack. It can be also used for home security as well as for tracking locations of terrorist organizations and then plan attack at suitable time. The whole path that the robot transverse is being seen by wireless camera that is placed on robot and accordingly the video signals are sent by camera for the direction where it travels. Remote operation is achieved by any Smartphone or tablet etc.

Keywords—Edog

I. INTRODUCTION

Now-a-days tracing and attacking enemies at different areas are very much difficult for the soldiers. There is always a chance for loss of lives of the soldiers during war and emergency situations. We are implemented a solution for the problem of replacing a soldier with a Robot Soldier completely controlled with a wireless network. The robot mainly concentrates on human gestures to control the hardware device. We are going to create webpage, with the help of suitable templates available on internet. We are going to create hotspot on our any android phone and then our raspberry pi will connect to the wi fi. By using our networks IP address we will access our web page. Then with the help of live video transmission we will recognize the gesture and pass on the information to the raspberry pi microcontroller which will make the device (robot) move accordingly More over the camera will capture video all around.

Basically the project is designed to develop a robotic vehicle named E DOG Robot using RF technology for remote operation attached with webcam application for monitoring purpose. The robot along with wireless camera can wirelessly transmit real-time video and will give confidential information regarding opposite parties. The commands are sent to the receiver, at the transmitter side with pushbuttons, to control the movement of the Robot to move forward, backward and left or right. Its application can be, .At the time of war where it can be used to collect information from the enemy terrain and monitor that information at a far secure area, and safely

devise a plan for the counter attack. .Tracking locations of terrorist organizations and then plan attack at suitable time. .Making a surveillance of any disaster affected area where human beings can't go.

The whole path that the robot transverse is being seen by wireless camera that is placed on robot and accordingly the video signals are sent by camera for the direction where it travels. Remote operation is achieved by any Smartphone or tablet etc. This kind of robot can be used for home security ,in this security system we are going to use three devices ,first is PIR sensor, for person identification, we will indicate is any illegal person body is present near the house surrounding. secondly we are going to use LASER on house compound, it will indicate theft as any unwanted or unknown person will cut the LASERS .We are also going to use RFID tags for family members, each tag will have unique 10 bit number ,our robo is going to scan the that number and the if robo will correctly scans the number, then our controller will sends the command to APR sensor to not to bark.



II.LITERATURE REVIEW

[1] AnkitYadav, AnshulTiwari , Divya Sharma, RatneshSrivastava, Sachin Kumar, says,

This research paper is based on Spying Robot which is made by using different technologies and sources. This paper is basically based on a project which is made by us. The main purpose of this paper is to describe how this war spy robot is made, what are the sources or technologies used to make this robot and how this robot is helpful in so many ways. Basically the project is designed to develop a robotic vehicle named Smart Spy Robot using RF technology for remote operation attached with webcam application for monitoring purpose. The robot along with wireless camera can wirelessly transmit real-time video and will give confidential information regarding opposite parties. An 8051 series of microcontrollers used for the desired operation. The commands are sent to the receiver, at the transmitter side with pushbuttons, to control the movement of the Robot to move forward, backward and left or right [1] .

[2]. Mr. Lokesh Mehta1, Mr. Pawan Sharma says,

This paper is based on domain embedded system and Robotics. An embedded system is a computer system with a dedicated function for specific task in which microcontroller programming is used, often real time constrains. Microcontroller chip is as a system on a chip which contains a little amount of inbuilt RAM, ROM, Flash memory itself. A robot is a mechanical or virtual artificial agent, usually an electro-mechanical machine that is guided by a computer program or electronic circuitry. A Robot is a mechatronics` device which also in includes resourcefulness or autonomy. A device with autonomy does its thing “on its own” without a human directly guiding it moment-by-moment Robotics is a confluence science using the continuing advancements of

mechanical engineering, material science, sensor fabrication, manufacturing techniques, and advanced algorithms.

III.WORKING PRINCIPLE

We are going to create webpage,with the help of suitable templates available on internet.we are going to create hotspot on our any android phone and then our raspberry pi will connect to the wifi .By using our networks IP address we will access our web page.Then with the help of live video trasmission we will recognize the gesture and pass on the information to the raspberry pi microcontroller which will make the device (robot) move accordingly Moreover the camera will capture video all around.

Basically the project is designed to develop a robotic vehicle named E DOG Robot using RF technology for remote operation attached with webcam application for monitoring purpose. The robot along with wireless camera can wirelessly transmit real-time video and will give confidential information regarding opposite parties. The commands are sent to the receiver, at the transmitter side with pushbuttons, to control the movement of the Robot to move forward, backward and left or right..The whole path that the robot transverse is being seen by wireless camera that is placed on robot and accordingly the video signals are sent by camera for the direction where it travels. Remote operation is achieved by any Smartphone or tablet etc. This kind of robot can be used for home security,in this security system we are going to use three devices ,first is PIR sensor,for person identification,we will indicate is any illegal person body is present near the house surrounding.secondly we are going to use LASER on house compound , it will indicate theft as any unwanted or unknown person will cut the LASERS .We are also going to use RFID tags for family members,each tag will have unique 10 bit number,ourrobo is going to scan the that number and the if robo will correctly scans the number,then our controller will sends the command to APR sensor to not to bark.

IV.CONCLUSION

The primary need for our paper would be accuracy. We have been able to view the things accurately that are currently happening in the surrounding area. Our design has not caused any sort of disturbances. The robot willmove depending on the motor direction basedupon the input we give through command by remote section unit. It display the current operation is going on as example left robot, near to object, clear up. With the help of the camera we are able to view the things that are happening in the surrounding area where the robot is hidden. By keeping the circuit easy and simple, most users will be able to use it easily. Thus we should be able to manipulate its path when necessary, to create the robot safely. To all that, a control unit is needed, where control units RF signal is used. By using these signals encoding is done signal is sent through the transmitter. At the receiver end these decoded signal are given as input to drive the motor. Not for long range applications it can be used as a spy robot within short distances.

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