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A Review on War Field Spying Robot with Night Vision Camera

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ABSTRACT: This is review paper on war field spying robot with night vision camera. 26/11 is an example of this project to reduce human victims in terrorist attack. This war field spying robot can be used on enemy territories, combat and spy mission for the purpose of spying or android monitoring. This robot can quietly enter into enemy area and sends us the information such as images, and real time videos with night sight capabilities through wireless camera and can't be known by the enemies in combat area. This robot are the record room of soldiers in war areas, for the safety of humans. This spy robot is also useable in star hotels, shopping malls, jewellery show rooms, etc. where there can be fear from thief's or terrorists.

KEYWORDS: Android, Microcontroller, RF Technology, Transmission, War Spy, Surveillance.

I. INTRODUCTION

Robotics is the branch of mechanical, electrical, electronics and computer science engineering which deals with the design, construction, operation and application etc of robotics, as well as computer systems for their control, sensory feedback and information processing etc. The hardware and software requirements of this project are using Microcontroller, DC Motors, Motor driver IC, Push Button, Resistors, Capacitors, Night Vision Wireless Camera, Decoder, RF Receiver, Battery, Bluetooth Device, Regulator, Keil Compiler, Language, Embedded C or Assembly and Android Application. Microcontroller is the heart of the system as it controls all the activities of transmitting and receiving. The microcontroller is used for the desired operation. The realize above standards some technical improvement along with the need of high performance robot is required to create a faster, reliable, accurate and more intelligent robot which can be devised by advanced management algorithmic program, golem management devices and new drivers. The wireless camera used for spying purpose additionally serves in complete darkness victimization IR lightning. At the transmitting end using Joysticks, commands are sent to the receiver to control the movement of the robot either to move forward, backward and left or right, ARM up and down etc.

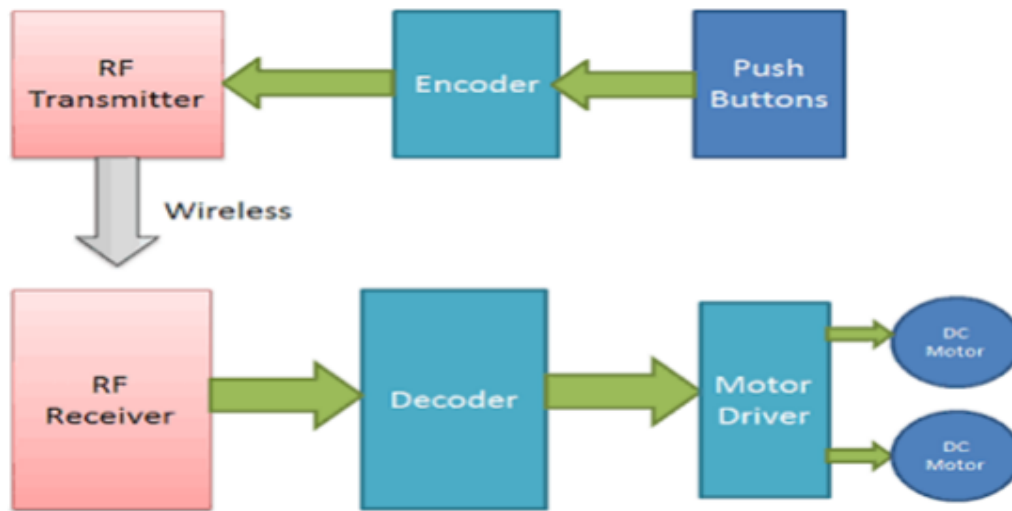


Fig.1. RF COMMUNICATION Block Diagram

II LITERATURE SURVEY

Ms. V. Manochithra, M.C.A., M.Phil, M.Tech.,(Ph.D) Head, Department of Information Technology Bon Secours College for women, Thanjavur, Tamil Nadu, India. Ms.B.Vishnu Priya II. M.Sc., (Computer Science): This project focuses on building a RF based mostly spying automaton hooked up with wireless camera that may cut back the human victim. This automaton sends the signal to the bottom station victimization wireless camera. One of the major applications of this project can be analysed using android based smart phone which can be used to control the movement of the robot.

Sakshi Balasaheb Chavanke1 , Tejal Dnyandev Barhate2 1,2 Third year Electrical Student, Department of Electrical Engineering, Guru Gobind Singh Polytechnic Nashik Maharashtra(India): This project focuses on building a RF based spying robot attached with wireless camera that can reduce the human victim. This robot sends the signal to the base station using wireless camera. One of the major application of this project can be analyzed using android based smart phone which can be used to control the movement of the robot.

Priyanka Yadav1 , Leena Chaudhari2 , Swati Gawhale3 1, 2,3BharatiVidyapeeth College of Engineering, Lavale, India This robot can quietly enter into enemy area and sends us the information via wireless camera. The movement of this robot is wirelessly controlled by a hand held RF transmitter to send commands to the RF receiver mounted on the moving robot. Since human life is always valuable, these robots are the substitution of soldiers in war areas. This spy robot can also be used in star hotels, shopping malls, jewelry show rooms, etc. where there can be threat from intruders or terrorists. 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.

III. PROPOSED SYSTEM DEVELOPEMENT

Night Vision Wireless Camera: Night vision has the ability to see in low-light conditions. The wireless night vision camera works on 12 V DC supply. The camera includes receiver that is placed within the remote terminal. Output area unit within the type of audio and video signals that signals are directly sent on TV or Laptop through the tuner card. This CCD camera placed on the robot. This mini wireless observation video camera and wireless receiver set for home tiny business, security, police investigations etc.



Fig.2 Night Vision Wireless Camera

RF COMMUNICATION: RF frequency ranges for 3kHz to 300GHz. This corresponds to the frequency of radio waves and also the AC that carry radio waves. It refers to the AC having characteristics that if the present is input to associate in nursing associated in magnetism field is generated appropriate for wireless broadcast and communication. The frequency of RF signal is reciprocally proportional to the wave length of the EM field to that it corresponds.

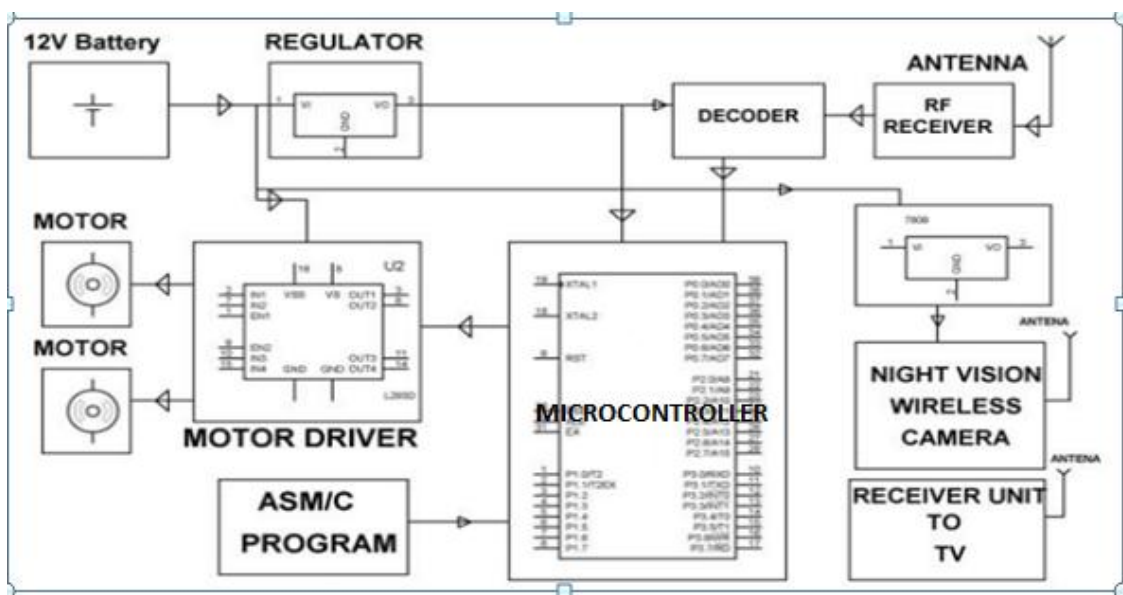


Fig.3 War Field Spy Robot With Night Vision Camera

Microcontroller: The microcontroller is a smaller computer; it has on chip RAM, ROM input/output ports. Microcontroller contains one or more CPU's (processor cores) along with memory and programmable input/output peripherals. Microcontroller are designed for embedded applications, in contrast to the microprocessors used in personal computers or other general purpose applications consisting of various discrete chips.

Motor drivers

motor drivers perform function of to take a low-current control signal & then converted into a higher-current signal that can drive a motor. To control the robot wirelessly through a remote controller we need to interface the motors with the wireless systems such as Bluetooth, 2.4 GHz RF modules.



12V Battery

12 Volt battery use to fed supply to the robot as well as controller , it can rechargeable or we can implement charging system via solar panel to recharge battery due that robot will sustain more duration in war field without any undulation due power supply.

Regulator

Voltage regulator IC is use to provide 5V dc supply or fulfil supply requirement of microcontroller , motor driver circuit as well as decoder circuit.

Decoder

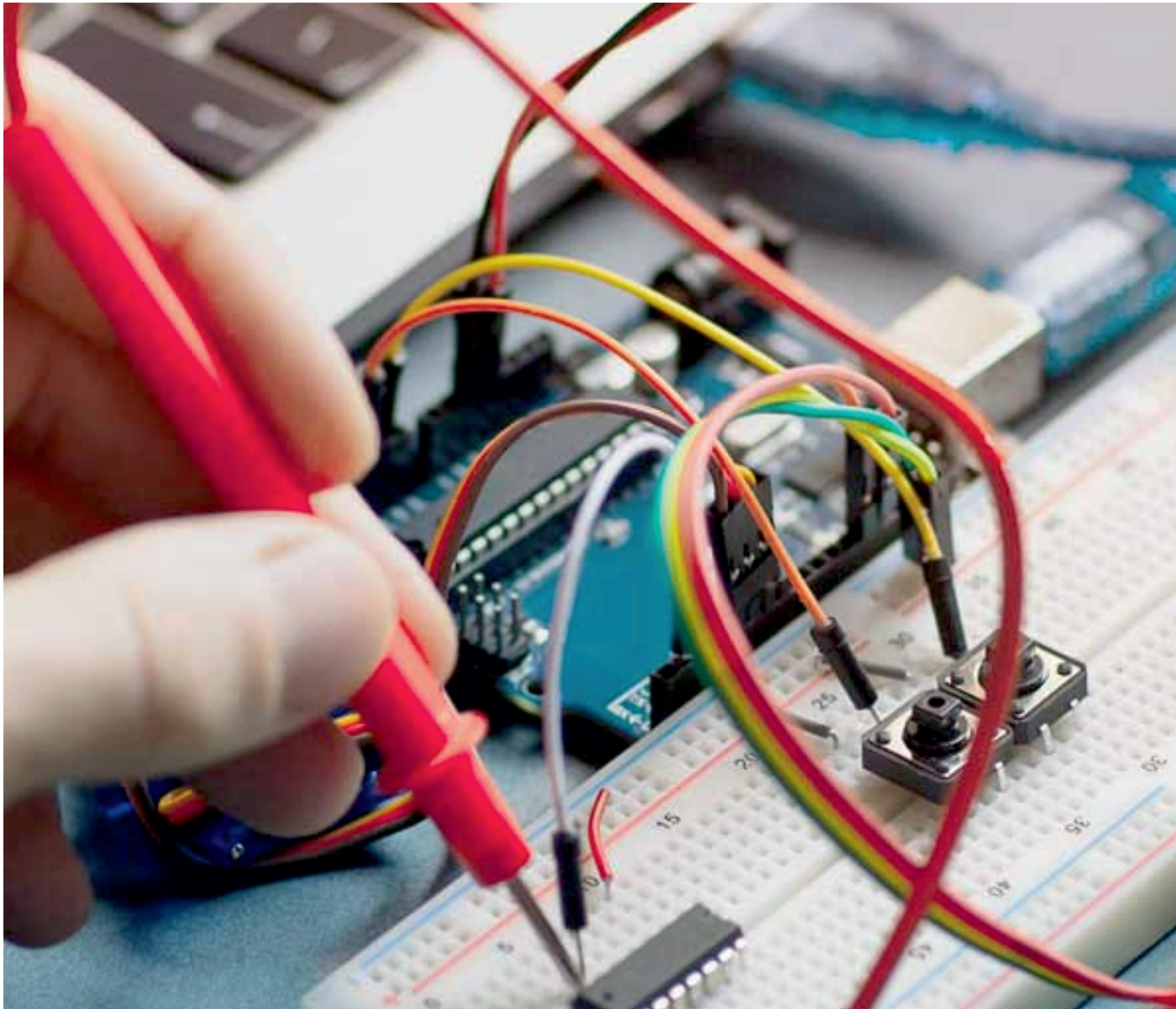
Decoder is connected between the RF receiver & microcontroller which decoder signal from RF antenna and fed to microcontroller.

IV.CONCLUSION

War Field Robot is to make it user friendly. The spy robot can easily capture images, videos and wireless transmit then , thus giving the soldiers an intimation about dangers situations at the receiver end, this decoded signals are given as input to drive motor. This helps the forces to view the things accurately that are currently happening in the surrounding area and to plan a head accordingly. The mechanism can move reckoning on the motor direction primarily based upon the input we have a tendency to ofer through command by remote section unit.

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