



Wireless Firing Weapon for Military Purpose

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ABSTRACT

The theme of the project to design the wireless control of firing weapon for military purpose. Using wireless system soldiers can use the system from remote location. This is not the right time to fight with head to head combat, now we want to fight or to protect the area, country using technology, using wireless system like drone kind system. Which can operate from remote. We are not supporting to war, cold war, small and full scale war. We are developing this kind of military weapon for protect ourselves, if we don't have this kind of weapons then our enemies will take action on us cause they have their own goals, they have their own policies like to capture the land of other countries and increase the area of their country or to do terrorist attack in other countries. So this kind of wireless firing weapon will help to soldiers to protect the area also we can do military operation in other countries using this technique for that we need to deploy the weapon in other countries and command from our country and it is possible to deploy our system in other countries by our spy officers, we can increase the range of the system too, also this technique will saves the soldiers life.

This circuit is analyzed and tested in various conditions and it provides an absolute result which shows the reliability of this system. Mostly lot of soldiers martyred due to sudden attack on them, or due to terrorist. They gives their life to saves the nation, to live the people secure in their nation or happy. It is important to save soldiers life. Therefore this project is very beneficial for military purpose. This system also provides the idea of developing the wireless weapon which is widely used nowadays.

Keywords- Wireless Firing Weapon, Military Purpose, Bluetooth Module HC-05, Stepper Motor MotorDriver

INTRODUCTION

Every device, equipment, things we use in our day to day life such as vehicles, electrical energy etc. Everything have advantages and disadvantages, useful and harmful for human life.

Lot of soldiers martyred due to sudden attack from terrorist cause they were not ready for combat or maybe due to intelligence failure about this kind of attack. So we can overcome this kind of situation by using wireless firing weapon.

This project is for military purpose to save the nation, to save the area or land, this weapon will helps to soldiers to fight with terrorist and who is against with soldiers also it will saves the life of soldiers cause this is wireless system. This is for security purpose but they can fire wirelessly.

The weapon we can use wirelessly, this weapon located at remote location and we can control it from another location using remote. It is possible to see anywhere wirelessly as the camera range or megapixel, it is possible to trigger wirelessly, possible to recognize human faces, this system work in the dark night to cause of thermal camera. For this operation remote is used which have coded with weapon. So this makes bit difficult to hack.

OBJECTIVES & PURPOSE

- The main objectives of the system are saves the soldiers life.
- Implementing at border, military bases & where need of this kind of system.
- Increase the use of wireless system.
- Improve the technology in military field.

LITERATURE SURVEY

The literature survey include the Bluetooth HC-05 and stepper motor drive.

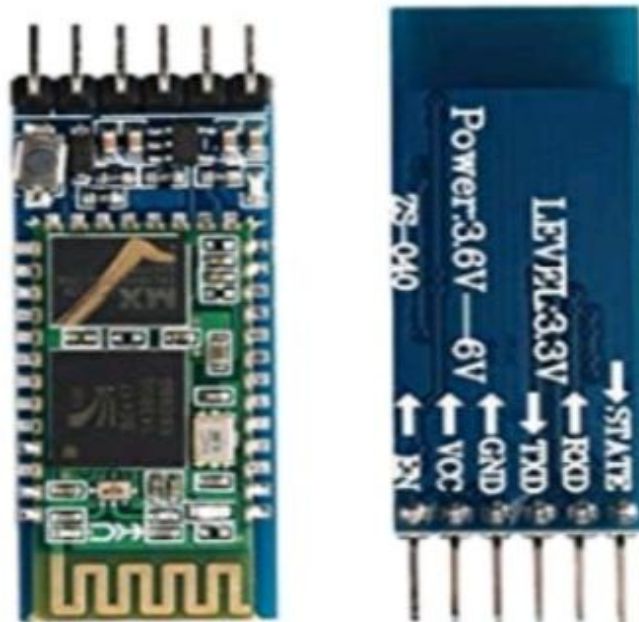
1. Bluetooth module

Robot in a military context is a powered machine that senses, think (in a deliberative, non-mechanical sense), and acts. Although various attempts to create controlled machines were made throughout history, the first fullycontrolled one was invented by Nikola Tesla in 1898. It was a radio-controlled

boat, which he believed could be used for military purposes. However, his idea was rejected. Wireless technology such as Bluetooth can be used for controlling devices. One of the most popular modules for research is HC-05. HC-05 is used for many applications like wireless communication between two microcontrollers, communicate with laptops, desktops, and mobile phones, data logging, consumer applications, wireless robots and home automation application.

It has 6 pins, the description is:

Key/EN: It is used to bring Bluetooth module in AT commands mode. If the Key/EN pin is set to high, then this module will work in command mode. Otherwise, by default, it is in data mode. The default baud rate of HC05 in command mode is 38400bps and 9600 in data mode. HC-05 module has two modes,



HC-05 Bluetooth Module

Data mode: Exchange of data between devices.

Command mode: It uses AT commands which are used to change the setting of HC-05. To send these commands to the module serial (USART) port is used.

VCC: Connect 5 V or 3.3 V to this Pin.

GND: Ground pin of the module.

TXD: Transmit Serial data (wirelessly received data by Bluetooth module transmitted out serially on TXD pin).

RXD: Receive data serially (received data will be transmitted wirelessly by Bluetooth module).

State: It tells whether the module is connected or not.

LED: Indicate the status of the module:

Blink once in 2 sec: Module has entered Command Mode

Repeated Blinking: Waiting for connection in Data Mode

Blink twice in 1 sec: Connection successful in Data Mode

Button: Used to control the Key/Enable pin to toggle between Data and command Mode.

2. Stepper Motor Driver

A stepper motor driver that is designed to drive the motor like a stepper motor to rotate continuously by controlling the exact position without using a feedback system is known as a stepper motor driver.

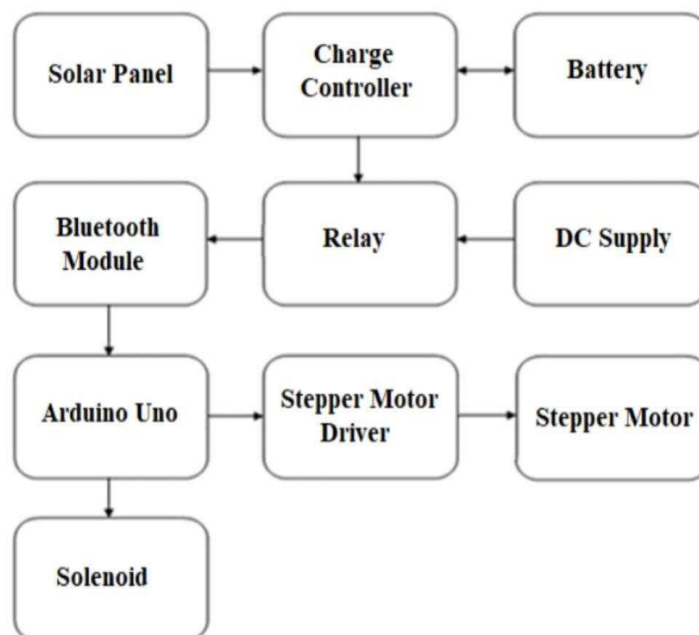
A motor driver is an essential device that provides the required voltage and current to a stepper motor so that it gets a smooth operation. A Stepper motor turns exactly using a controller by synchronizing the pulse signals with the help of a driver. This motor driver takes the pulse signals from a microcontroller and then changes them into the motion of the stepper motor.

These chips keep the power that drives the motors separate from the power that is on the arduino. The arduino can't provide enough juice to power the stepper motors directly. This is why need to use separate chips to sort of act as valves that control how the motor spins.



Stepper Motor Driver

LAYOUT



CONCLUSION

The wireless weapons are one of the important and major factor in military and has also proven it useful in functioning of applications like drone. Wireless weapons are one of the applications of electronics and electrical to increase the facilities of military life. The use of new electronic and electrical theories has been put down by expertise to increase the facilities given by the existing appliance. Here the facility of ordinary wireless weapon is increased by the making it controlled from remote location.

The charge control is necessary in order to achieve safety and increase the capacity of the battery. At border, & at military bases currently thousands of wireless weapon are operated and wireless weapons are very useful to military.

The initial cost and maintenance can be draw backs of the system. With the advance in technology and good resource planning the cost of the project can be cut down and also with the use of good equipment the maintenance can be reduced in term of period checks. It will helps to soldiers so we want to improve, research and accept this kind of system.

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