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Camoshot

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Abstract— **We plan to use arduino ide to operated firing device which is equipped with tranquilizer darts that can be accessed remotely by an operator. This allows him to fire neutralising weapons at the threat i.e. the miscreant causing damage to life and property. This will act as a first aid measure to take rapid action before legal enforcement forces arrive at scene of crime and also help the security and policing forces while they work.**

***Index Terms*—Camoshot, Security forces, Circuit closed systems**

I. Introduction

It is a modification on the present Closed Circuit Televisions (CCTVs). Where, the present day CCTVs focus only on surveillance, our new concept of armoring surveillance tends to focus on vigilance as well. In case of extreme destructive acts caused by humans – such as robbery, forced breaking and entering and terrorist attacks – the operator has been not more than a mere spectator, camoshot allows him to take actions and neutralize the threats and hand over to police or security forces

II. Block Diagram

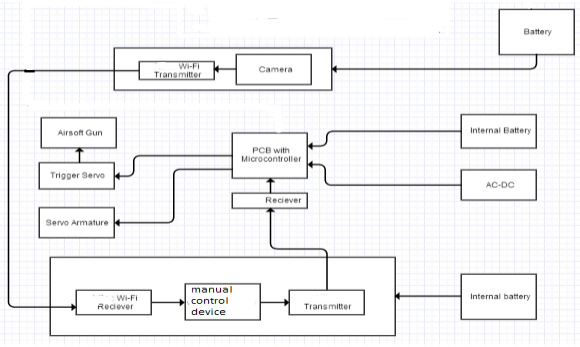

Fig. 1. Block diagram

1) Micro controller

The Atmel Mega 328 is the favorite amongst hobbyist and robotic fans. Key specifications include an 8-bit RISC based architecture and 32 Kbytes flash. An interesting ability of the Atmel Mega 328 is its ability to achieve 1 MIPS per MHz. This allows for a good tradeoff between power, cost, and performance.

2) Wifi module

Wi-Fi allows devices to connect to the internet in order to transmit data. With a range of upwards of 250 meters and speeds up to 54 Mbps, WI-Fi has a lot of positives for the project's video camera transmission challenge. The downsides unfortunately outweigh the upsides. The user must be connected to the internet which means a router running continually is a necessity. Also the user must be within range of said router.

3) Battery

X-discharge current of 1.35 Amps battery pack will be used to lead the circuitry. This main power house will be used to control the motor controller, which consist of the Atmel mega 328, and servo motors. The power ratings of the devices that will be powered by the primary battery.

4) Servo Author

Servo motors were the first choice for positioning control and continued to show much promise when further researched. The reason for servo motors beating out the competition is their ability to have precise control. This precision is a key element to the project since tracking a target requires accurate coordinates which must be updated continuously. Also, the power efficiency of the servo motors will not drain an onboard power supply as fast as competing motors.

III. Conceptual Design Planning

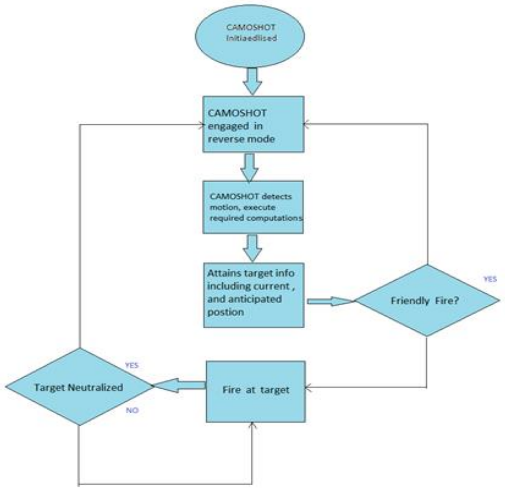

Fig. 2. Camoshot

A. Conceptional Design Working

CAMOSHOT initializes the work by searching the distance between the camera and the target. Then it gets engage into

reverse mode, in which it gets the distance between the target and the camera by range finder sensor. After which it detects the position of the target and weather it is in motion or not, and executes the required computations. After completing these procedures it gets attains the target information including the current position and anticipated position. Now it fires at the target. If the target is neutralized then it moves again to the initializing position, if not then it will fire again at the target.

IV. Cost And Finance Management

1. CCTV -1000rs.
2. Aurdino ide-1300rs
3. Stepper motor-400rs
4. Range Finder Sensor-700rs
5. Atmel Mega328P Microcontroller– 170rs
6. And including all small components with the above components, the total cost will be around 4000rs or we can say 56 dollar's.

V. Conclusion

Thus this paper presented the use arduino ide to operate firing device which is equipped with tranquilizer darts that can be accessed remotely by an operator.

References

[1] https://en.wikipedia.org/wiki/Arduino
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