

202. DESIGN AND DEVELOPMENT OF REMOTE CONTROLLED MULTI-DIRECTIONAL UNMANNED GROUND VEHICLE FOR BORDER SURVEILLANCE AND SECURITY.

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Border surveillance has become an increasingly harder task as most of the climatic conditions of the areas being too extreme for human intervention, this paper gives an insight on better border security by sending the remote operated multi directional robots fitted with video cameras and armed with weapons so as to replicate the work of a soldier on border duty. The videos are streamed to a base station that can be located hundred miles away. Since the robot is controlled from the base station the user will able to get unprecedented access to the footages and if any intruder or enemy camps are spotted, they can command the robot to attack/shoot. The total system contains mobile robot, controlled with the PC, has camera mounted on it and sensors fitted on them to detect and avoid obstacles. The 16-bits Microchips microcontroller were used in the UGV's system that embed with Xbee Pro through variable baud-rate value via UART protocol and control the direction of wheels

Keywords-component-border surveillance ; XBEE pro; unmanned ground vehicle.

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