

Design and implementation of a mobile surveillance and protection system

Abstract— The purpose of this project was the design and implementation of a mobile surveillance and protection system. This system is integrated by a mobile robot with an embedded taster device, which functions as a contact stun device. When a person has been detected by the ultrasonic sensor that the mobile robot has, it will send a signal to the RX module that will activate an alarm. Then anyone close to this alarm, can be aware that an intruder was detected and observe who is the person walking aside the mobile robot and make a decision of what the robot should do i.e. use the taser or run away. The system also has a wireless camera that along with a lab VIEW program transmits into a pc the images that the robot recovers. The main feature of this program is a graphical interface that permits the control and manipulation of the robot by sending its instructions through radio frequency signals.

Keywords: RF sensors, digital design, mobile robot, lab VIEW.

