

CHAPTER 1

INTRODUCTION

These days security is the major issue all over the world. Security is very important in order to protect vulnerable and valuable assets such as a person, dwelling, community and nation from any harm. International security issues are also very important, especially border and coastal security to any country. The people of national security agencies, marine security organizations, military forces and other forces sacrifice their lives to protect the citizens.

So by using advance technology, these forces can protect the nation by incurring minimum loss of life. In this modern era, computer based security equipments are very popular among the forces because they are more advanced and precise. Keeping all the factors in mind a system is developed by using this advanced technology. With this system, the target is monitored and eliminated by using the visuals displayed on the monitor with the help of a camera. The gun is then manually operated by using a joystick.

This system allows for real time video transmission which is vital for video surveillance and other military applications. The video from these hi-tech cameras are then fed to the system which allows the operator to choose the due course of action from a remote location. The availability of high quality and inexpensive video cameras has generated a great deal of interest in the areas of motion detection, object tracking and object targeting. The mobility, hardiness and functionality of the system allows a reliable replacement for human beings in harsh and hostile environments, ultimately sparing a life.

Our system is a prototype of the proposed sentry gun. Here we use a camera which is mounted in line with the barrel to meet the visual requirements. A pneumatically actuated firing system is used to mimic an actual weapon. A compressor provides an input to the pneumatic system. A wide array of electrical components ensures smooth working and functioning of the system. The system can be wirelessly controlled and monitored over a considerable distance. The controlling and monitoring unit is highly

mobile and compact. The front end unit can be broken down into sub components which can assembled on site. As the selection of targets can be done manually, this eliminates unwanted collateral damage.

Overall, this system has a lot of potential in modern day military strategy. It can be used as an offensive unit for taking out targets and defensive unit for surveillance purposes.