# Gesture Controlled Surveillance Vehicle

**Riken Mehta, Milankumar Patel**

**Rajat Khandelwal, Vaishali Jhalani**

Texas Instruments

Sardar Vallabhbhai National Institute of Technology, Surat

## Source of Motivation

The unprecedented number and scales of natural and human-induced disasters in the past decade has been recorded. Such incidents urged the emergency search and rescue community around the world to seek for newer, more effective equipment to enhance their efficiency. Search and rescue technology to-date still rely on old technologies such as search dogs, camera mounted probes, and technology that has been in service for decades. Intelligent robots equipped with advanced sensors are attracting more and more attentions from researchers and rescuers. This inspired us to build a surveillance system to help the rescue team and reduce the death number to large scale.

## ABSTRACT

Robots have been widely used to perform variety of tasks which reduces the manual work specifically in remote areas where human accessibility is unimaginable. The main applications where the robots have exhibited their excellence include surveillance, tracking targets for military purposes and also for disaster management like searching and rescuing victims. This paper deals about an evolutionary Non-humanoid robot for surveillance with intruder protection capability.

## Solutions available in Market

| Name | Price |
|---|---|
| **Guardian** | 15,70,689.80 |
| **Summit XL** | 7,98,095.31 |
| **Inspectorbots** | 2,79,367.8 |
| **SuperDroid HD2-S** | 17,73,270 |

## How our system is Different ?

Most of the solutions available in the market are very costly and none of them are specifically designed for disaster management or rescue purpose. Most of them have range of about 100-300 meters in outdoor or indoor. Our system is specifically designed for disaster management purpose. Our main focus was to improve the range of the wireless control and data acquisition system.

Another drawback of present system is their control. Control through remote control need much more practice and skilled persons.
In our system we came up with gesture control so that any normal operator can control the vehicle in the field.