Abstract

In this modern era of technology, still conventional methods (human and trained dogs) are being used to find and rescue the victims who are buried under the rubble after natural or human-made destruction. Such operation is very dangerous for the rescue workers and victims as well, especially in the case, if the wreckage is dislocated. These traditional methods increase the chances of causalities due to their risky and time taking approaches. Hence, to make the rescue operation safer and effective, a small ground robot for humanitarian search have been proposed which detect alive human beings. The main aim is to design a PC controlled Robot that detects live human and transmit the location of Robot wirelessly. This Robot is mainly used in disaster affected areas like earthquakes. The Robot is equipped with PIR sensor to detect live human. Any alive body with a temperature above absolute temperature emits radiations which are invisible to the normal eye. It senses these passive infrared rays to detect the live human. This Robot also includes the camera, IR sensors, Gas sensors, Metal detector and video screen. Microcontroller is used to control the robot and is the core of robot. The robot consists of a four-wheel geared drive with DC motors attached to perform movements.

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