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Fire Fighting Drone Using CO_2 Boll Extinguisher

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ABSTRACT: Fire fighting is traditionally done using firemen and fire engine. Later it was modified to fire fighting robots. Fire Fighting Robots were controlled by electronic devices mounted on them. Our work aims to control and supply a solution for fire fighting using a fire extinguisher and any such mechanism fitted on a Drone. Fire fighting is harmful job that invariably place the life of a fire fighter in danger. By putting a fire- fighter drone to perform this task in a inaccessible fire-prone area, it can aid to avoid and/or prevent untoward incidents or the loss of lives. This work describes the development of a fire fighting Drone equipped with the fighting instrumentation that may be required to be mounted on it. In literature we've not found any such attempt being made. Fire Fighter Drone is designed for usage in extreme conditions. It can be operated and controlled by remote user and has the flexibility to extinguish flame. Itis design to be controlled with a monitoring system and component communicate in wireless mode .

KEYWORDS: Remote-controlled Aerial Vehicle, Fire Fighting Drone, Fire Flame Extinguisher.

I.INTRODUCTION

The main objective of this project is to design and implement an Autonomous Fire Fighting Platform. Drone is able to monitor a prescribed area, detect for occurrence of fire, locate for exact location of fire source and extinguish fire. It will save human lives as well as animal we rely on human beings to enter burning buildings and extinguish fires. With help of such Drones, firemen work will be easier and effective regardless of security. It will make human lives easier and make maximum use of time available in emergency case. The drone that will start the process from the take of after that it will move to all surrounding area that are specified and detect the fire area and split water over it .

II.RELATED WORK

To make associate degree Automatic fire extinguisher robot which will notice the fire over the particular area . A Thermostat detector, typically referred to as associate degree optical detector, Detects visually sense the fire place so as feature in forest operations, It is useful fire lined space at much less time and helpful from dangerous hazardous the atmosphere mistreatment extinguisher .Automatic Fighting robots area unit used as to prevent the fireplace and work because the extinguisher another wherever force don't seem to be potential to be reached. Automatic Fighting robots sense the Thermostat sensors however once it's on out of sense vary it have to be compelled to build a correct vary for sensing the fireplace.

III.EXISTING SYSTEM

In previous system the drone have the capacity to move on only ground area .The remote controlling feature is also available it will helpful for the capturing image of that particular surface.

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IV.PROPOSED SYSTEM

Drone can achieve vertical flight during a stable manner and be used to monitor or collect information during a specific region like loading a mass. Technological advances have reduced the cost and increase the performance of the low power microcontrollers that allowed the general public to develop their own quadcopter. The goal of this project is to create, modify, associated improve an existing quadcopter kit to obtain stable flight, gather and store GPS data, and perform auto commands, like auto-landing. The project used an Aero-quad quadcopter kit that included a frame, motors, electronic speed controllers Mega development board, and sensor boards and used with the provided Aeroquad

software. The most objective of this project is to design and implement an Autonomous fire Fighting Platform. Drone is in a position to watch a prescribed space, observe for incidence of fire, find for actual location of fire source and extinguish fire. It'll save human lives as we have confidence human beings to enter burning buildings and extinguish fires. With facilitate of such Drones, firemen work are going to be easier and effective regardless of security. It'll create human lives easier and create most use of time available.

II. SYSTEM ARCHITECTURE

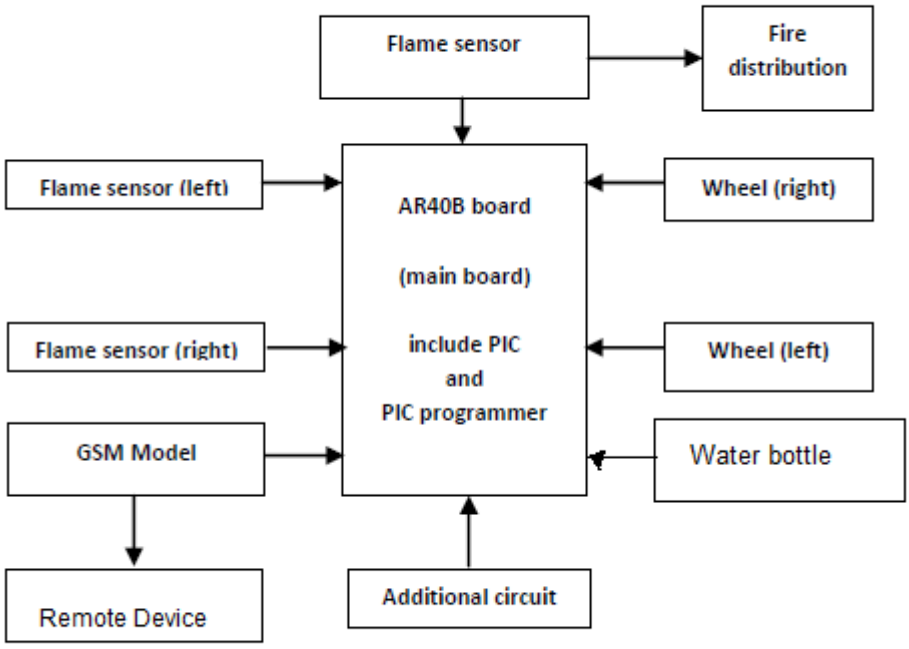

Figure shows, System Architecture of fire fighting robot with GSM using Microcontroller. It consists eleven blocks. Basically system architecture of fire fighting robot is divided into three main parts:

1. Input,
2. Processor,
3. Output.

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There are three flame sensors(Smoke detector), connected to the processer .These sensors are used for the fire detecting purpose. Fire sensors used to detect fire before it burns out. The DC motor used for the rotation of wheels which are responsible for the movement of the robot.

V CONCLUSION

In this paper, we propose a new fire Fighting Robots to control and supply a solution using a fire extinguisher and any such mechanism fitted on a Drone. Fire fighting is harmful job that invariably place the life of a fire fighter in danger .Drone that have the functionality of the screen capturing ,remote control ,Fire detection ,Water splitting over the fire area .

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