Fire Extinguishing Robot

Detecting fire and extinguishing is a hazardous job for a fire extinguisher, it often risks the life of that person. This project aims in giving a technical solution to the mentioned problem. A robot is a mechanical design that is capable of carrying out a complex series of actions automatically, especially one programmable by a computer. A fire extinguisher robot is a Bluetooth controlled robot that has a small fire extinguisher unit added on to it. This mobile robot is controlled using a mobile phone through Bluetooth for its movement and reaching the fire, the flame sensor detects the fire and gives the further signal to the extinguisher units to trigger the pump and spray the water. The whole system is programmed using an Arduino UNO board (ATmega328P microcontroller) which forms the brain of the system. The system can also sense the presence of flammable gas and also it can detect obstacle on its way the data from the robotic vehicle will be displayed on the mobile phone with an android application

**Block Diagram**

Arduino

Motor Driver L293D

Motor

Temperature Humidity Sensor

Flame Detector

Power Supply

LCD Display

Bluetooth Module

GAS Sensor

Water Pump

Water pump driver

Obstacle detector