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Fire Fighting Robot Using Arduino with SMS and Call Alert System

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Abstract: *A fire extinguishing robot has been proposed and constructed in this study work, which identifies the fire location and extinguishes the fire using sprinklers after initiating the water pump. For effective fire detection, this robot has three flame sensors. This suggested form of Arduino based Autonomous Fire Extinguishing Robot detects the presence of fire and extinguishes it without the need for human intervention. It has gear motors and a motor driver that regulate the robot's motions when it senses a fire and starts the water pump to extinguish it. This miniature robot is equipped with a water ejector that can squirt water over the flames. A servo motor can be used to move the water ejector pipe in the direction necessary. An Arduino Uno microcontroller is in charge of the entire setup. This robot will move to the fire source when the flame sensor detected the fire and it will send message to any phone of the GSM network through the modem connected to the programmable device. This robot also programmed to stop before the robot hit the flame.This robot also can extinguish fire at 45 Degree for upper side and 45 Degree for lower side. This robot implicated the function of finger to clip the fire extinguisher clipper.*

Keywords: Arduino Uno, DC Submersible pump, Flame sensors, L293D motor driver, Servo motor

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