

Smart Fire Detection System with Water Head Sprinkler

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Abstract: It describes about the Smart fire detection system with water head sprinkler. The main aim of this project is a security system for the people to alert from fire disaster. The fire detection system saves many lives of people and also decreases the property losses. Fire presents significant threat to life due to its severe hazards and ability to spread rapidly. Fire poses a huge threat to human life. Fire detection systems, particularly vision-based systems, identify flames before any loss or destruction occurs. In this project we used Arduino Atmega328P and done a program for software. We used Fire sensor, gas sensor and DHT11 temp sensor for detection of environmental changes. We also used buzzer to alert the people from the fire. For water sprinkler we used a 5v relay and dc water pump, relay is connected with dc water pump and pump will suck the water and extinguish through sprinkler head. Also, we used an LCD to display the alphabet image when the sensor senses the fire and smoke. The appliance system includes components such as a buzzer for alarming, displaying temperature, humidity and to put out the fire, we use a motor pump.

Keywords: Fire Detection, Alert System, Sensors, Arduino, Water Sprinkler

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