

# Fire Fighting Robotic Machine

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**Abstract:** *A fire outbreak is a hazardous act that leads to numerous consequences. Detecting a fire at an early stage and extinguishing it can aid in prevention of various accidents. Till now we rely on human resource. This often leads to risking the life of that person. Therefore, fire security becomes an important aspect to save human lives. In this paper a fire extinguishing robot has been proposed and designed which detects the fire location and extinguish fire by using sprinklers on triggering the pump. This robot uses three flame sensors for accurate fire detection. This proposed model of Fire Extinguishing Robot using Arduino used to detect presence of fire and extinguishing it automatically without any human interference. It contains gear motors and motor driver to control the movement of robot when it detects any presence of fire and will automatically start the water pump to extinguish that fire breakout. This model robot has a water ejector which is capable of ejecting water at the fire breakout place. The water ejector pipe can be move towards the required direction using servo motor. The whole operation is controlled by an Arduino UNO micro-controller.*

**Keywords:** Arduino UNO, Flame sensor, Motor driver, Water pump.

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