AUTONOMOUS FIRE FIGHTING ROBOT

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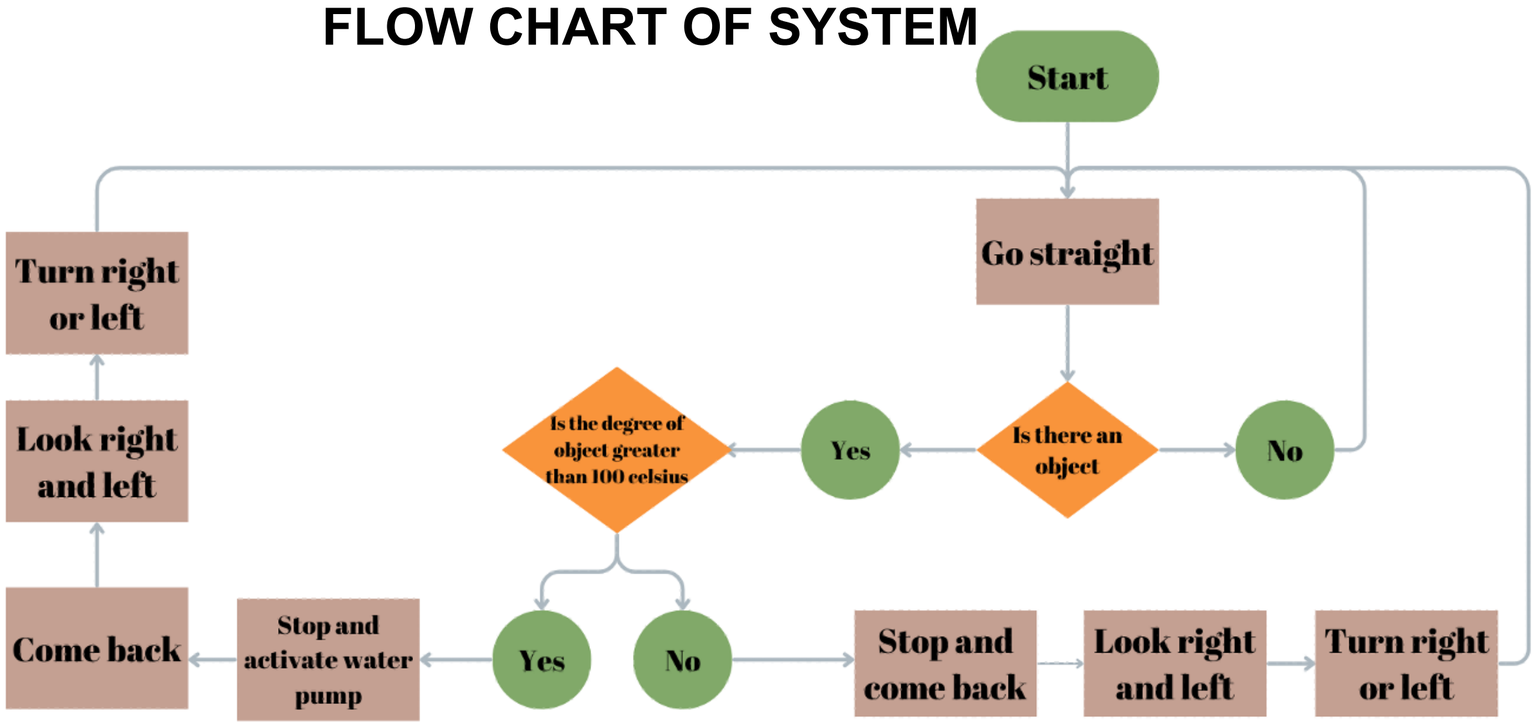
ABSTRACT

The project focuses on a developing an automous fire fighting car,with operates on a microcontroller-based power source and electronics components such as a servo motor-controlled ultrasonic sensor for obstacle detection,a flame sensor for detecting fires and a water tank with a spraying mechanism for extinguishing fires.

FLOW CHART OF SYSTEM



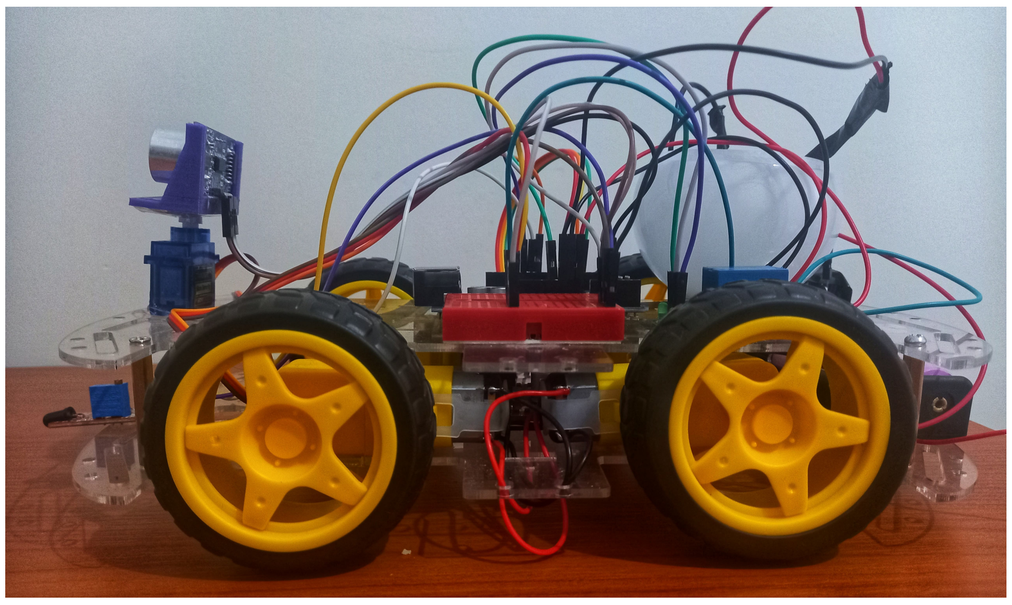
SUMMARY OF WORK DONE

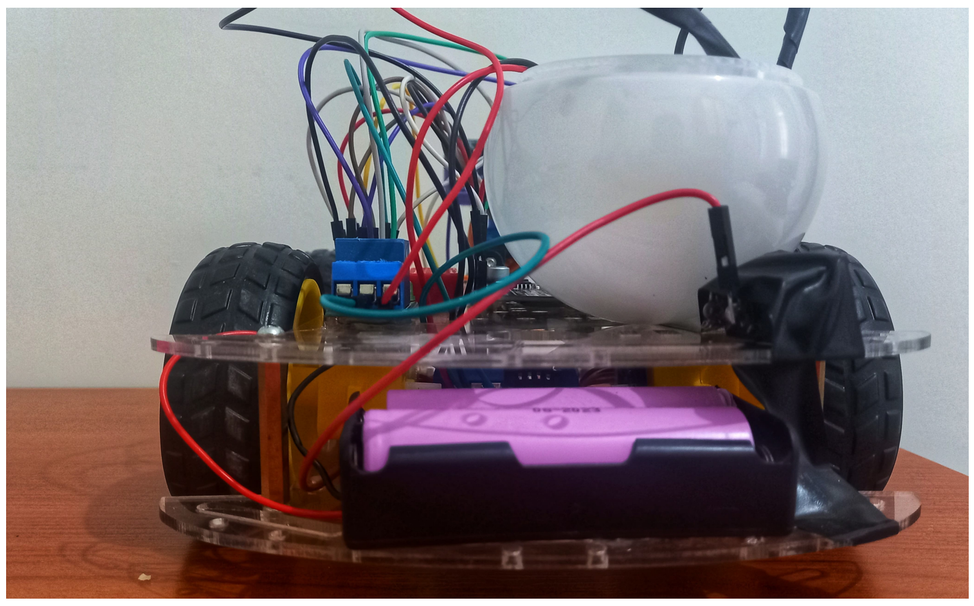
The main components succesfully implemented on a 4-wheel chassis. Ultrasonic sensor helps the car to move autonomously,When the flame sensor detects the fire,the direction of the car is set to approach the fire, the car will stop and extinguish the fire with a spraying mechanism.

MAIN COMPONENTS

Ultrasonic sensor, Flame Sensor, Arduino UNO, Motor Driver Water Tank,Nozzle

COMPONENTS AND VIEW OF CAR





CONCLUSION

To summarize, our autonomous robot which we have produced has showed us how efficient when the robot and the fire system work together.In some cases, thanks to the robot fire extinguishing mechanism, the robot can enter some dangerous locations where people cannot enter and easily extinguish the fire.This shows that the robot can easily protect people and buildings from fire and make buildings even safer.With the developing technology,they will be more and more useful in our daily life.

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