

Report

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Problem Statement : Development and testing of an inductive Proximity sensor based automated landmine detection system

Methodology & Components Used :

The model is an Arduino-based embedded system that uses sensors, actuators, and a microcontroller to automate landmine detection. Its ultrasonic sensor, mounted on a servo motor, measures distances and determines whether to turn left, right, or move forward. Two DC motors are used for movement, while an inductive proximity sensor detects metal deposits and stops the model near the site of detection. It avoids landmines and obstacles while alerting operators of their presence. The model runs on 9V batteries and aims to fully automate landmine detection, including automatic obstacle and landmine avoidance.

Plan of Future Scope: The future scope of landmine projects depends on various factors such as technological advancements, political support, funding. Landmine projects involve ongoing efforts to develop new technologies, raise awareness, and secure political and financial support to remove landmines from affected areas, prevent new mines from being laid, and support affected communities. Last but not the least we can use the automation technology of the robot in other vehicles for wars and even to fight against natural calamities

