**REMOTE OPERATED METAL DETECTING ROBOT**

**AIM:**

The main aim of this project is to design a Metal Detecting robot using RF technology.

**PURPOSE:**

The purpose of the project is to detect landmines by using RF technology.

**BLOCK DIAGRAM:**

MICRO CONTROLLER UNIT

(AT89S52)

BATTERY

BUZZER

LAND MINE SENSOR

MOTOR DRIVERS

**DECODER**

MOTORS

**RF RECEIVER**

**REMOTE SECTION:**

**RF TRANSMITTER**

**BATTERY**

**ENCODER**

**KEYS**

**DESCRIPTION:**

In our project we can control the robot by using wireless communication i.e. from Control section (acts as transmitter) we are sending the control signals, then the robot receives (acts as receiver) the signals, according to the signals being received the direction of the robot is controlled. According to this project, an RF transmitter is used to transmit the control signals, which controls the direction of the robot. In the same way, RF receiver which is placed on the robot receives the RF signals according to which the direction of the robot is controlled.

It also contains an automated unmanned system being designed around a microcontroller which serves for detecting hazardous parameters such as metal detection.

According to this project, a robot is designed which is made to move all the time. Apart from this, the system also detects the presence of any metal with the help of a metal detector. All the devices such as metal detector, motor by which robot is made to move, buzzer are being interfaced to microcontroller which forms the control unit of the project. In the standby mode the robot is moved here and there. Whenever any metal is detected by the metal detector, the same is sensed and is intimated to the user by the microcontroller using buzzer.

This project finds its place in places where one wants to make the unmanned system to sense some hazardous condition.

**HARDWARE USED:**

* Microcontroller(AT89S52)
* Land mine sensor
* Motor
* Motor driver
* Buzzer
* Battery

**SOFTWARE USED:**

* Keil
* Express PCB
* ISP

**APPLICATIONS**:

* Used in security applications like bomb detection
* Used in Industrial applications.
* Used in Military applications

**RESULT:**

According to this project we can design an android, which detect the landmines.