

# **Metal Detector Robot Using Arduino**

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**Abstract:** *Here is a sample paragraph for the abstract of your journal article on a "Metal Detector Robot Using Arduino": This paper presents the design and implementation of a metal detector robot using an Arduino micro controller. The primary objective is to develop an autonomous robot capable of detecting and identifying metallic objects buried underground. The system utilizes an inductive sensor interfaced with the Arduino to sense the presence of metal, which triggers an alert mechanism. The robot's movement is controlled through a combination of DC motors and a motor driver, allowing it to navigate diverse terrains. Detailed experimentation and testing have demonstrated the robot's efficiency in detecting various metals, including iron, copper, and aluminum, at different depths and soil conditions. The results indicate a promising application in fields such as archaeology, security, and landmine detection. This study contributes to the growing field of autonomous robotic systems, offering a cost-effective and reliable solution for metal detection tasks..*

**Keywords:** Arduino Uno, Metal detector, Design, Robot, Landmine Detection

