

# Line Following Roboat

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**Abstract:** *This project presents a line following robot that uses sensors and microcontrollers to navigate along a predetermined path. The robot is designed to follow a line or path marked on the floor, using infrared sensors to detect the line and adjust its trajectory accordingly. The robot's movement is controlled by a microcontroller, which processes sensor data and sends commands to the motors. The line following robot can be used in various applications, such as material transport, surveillance, and robotics research.*

**Keywords:** Line Following Robot, Autonomous Navigation, Sensor-Based Robotics, Microcontroller-Based Control, Robotics and Automation, Path Following Algorithm, Infrared Sensors, Motor Control, Robotics Research, Industrial Automation

