B.M.S COLLEGE OF ENGINEERING –560019

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

<table>
<tr><td>Title:</td><td colspan="3">Line Follower, Obstacle and Mine Detection Robot</td></tr>
<tr><td rowspan="4">Student
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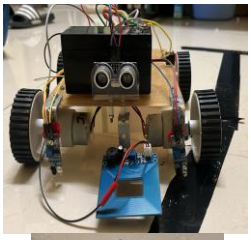
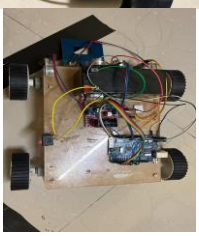
<tr><td>Guide</td><td colspan="3">Dr. C Gururaj</td></tr>
<tr><td>Venue</td><td colspan="3">Department of Telecommunication, BMS College of Engineering, Bangalore - 560019</td></tr>
<tr><td>Project Commencement Date</td><td>16TH October,2024</td><td>Project Completion Date</td><td>18th January ,2025</td></tr>
<tr><td colspan="2">Abstract</td><td colspan="2">Photographs</td></tr>
<tr><td colspan="2">This project presents a versatile robotic navigation system using an Arduino Uno, integrating line following, obstacle avoidance, and mine detection for autonomous movement. IR sensors guide the robot along predefined paths, while ultrasonic sensors detect and avoid obstacles, ensuring seamless navigation. The system is a cost-effective solution for automation, robotics, and educational purposes, emphasizing sensor-based feedback for efficient control.

The Arduino Uno serves as the central controller, converting digital and analog signals into motion. Additionally, Bluetooth technology allows flexible remote operation via smartphones, tablets, or laptops, offering reliable performance even through walls or other barriers.</td><td colspan="2"> 
  </td></tr>
<tr><td colspan="2">Conclusion</td><td colspan="2">We have developed an arduino based robot that detects line ,obstacle and mine</td></tr>
<tr><td colspan="2">Program Outcomes</td><td colspan="2">Our project satisfied PO-1, PO-2,PO-3, PO-4, PO-7,PO-8,PO-9,PO-10,PO-11 and PO-12</td></tr>
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