BVRIT HYDERABAD
College of Engineering for Women
Department of Information Technology
Major Project - Academic Year 2022-23

TEAM 17

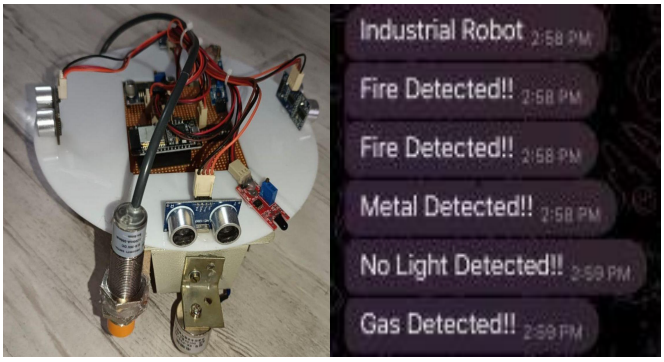
INDUSTRY ORIENTED AUTOMATION ROBOT

Abstract

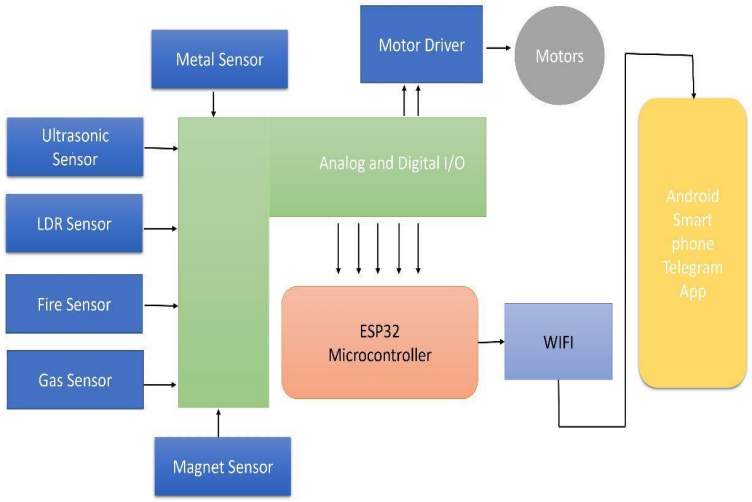
The industrial automation robot is a cutting- edge tool that is revolutionizing industrial safety and efficiency. It features advanced sensors such as an LDR, three ultra-sonic sensors, a fire sensor, a gas sensor and a metal sensor. The robot can pick up tiny metal pieces on the floor with a magnet, making it an asset in facilities that handle metal parts. One of the key features of this robot is its connectivity to a Telegram bot. The robot sends alerts to the bot if any abnormal values are detected by its sensors.

Modules

1) Fire detection
2) Obstacle Detection
3) Collection of metal particle
4) Metal detection
5) Light detection
6) Gas detection



Architecture



Tools and Technologies

- **Python**
- **Sensors**
- **ESP32**
- **DC Motor**

Conclusion and Future Scope

Proposed module that has been implemented was one of the best solutions to avoid industrial accidents and saves lives of workers and equipment's.The objectives of the industrial automation robot are to improve safety, efficiency, improve quality, provide real- time monitoring. We can also try do add water sprinklers ,a vacuum module that can pick-up any dust particles that are present on the floor.

Guide

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Team

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Github Links:

1)https://github.com/19WH1A1212
2)https://github.com/AthiyaFathima
3)https://github.com/19WH1A1236-KP
4)https://github.com/19WH1A1259