

RADAR Detection Using Ultrasonic Sensor

This presentation covers the use of an Ultrasonic Sensor for detecting objects and enhancing sensing capabilities in automated systems. enhances the accuracy and versatility of detection systems. In this project, we aim to explore the synergy of combining these sensors to create a robust object detection system

Introduction and Purpose

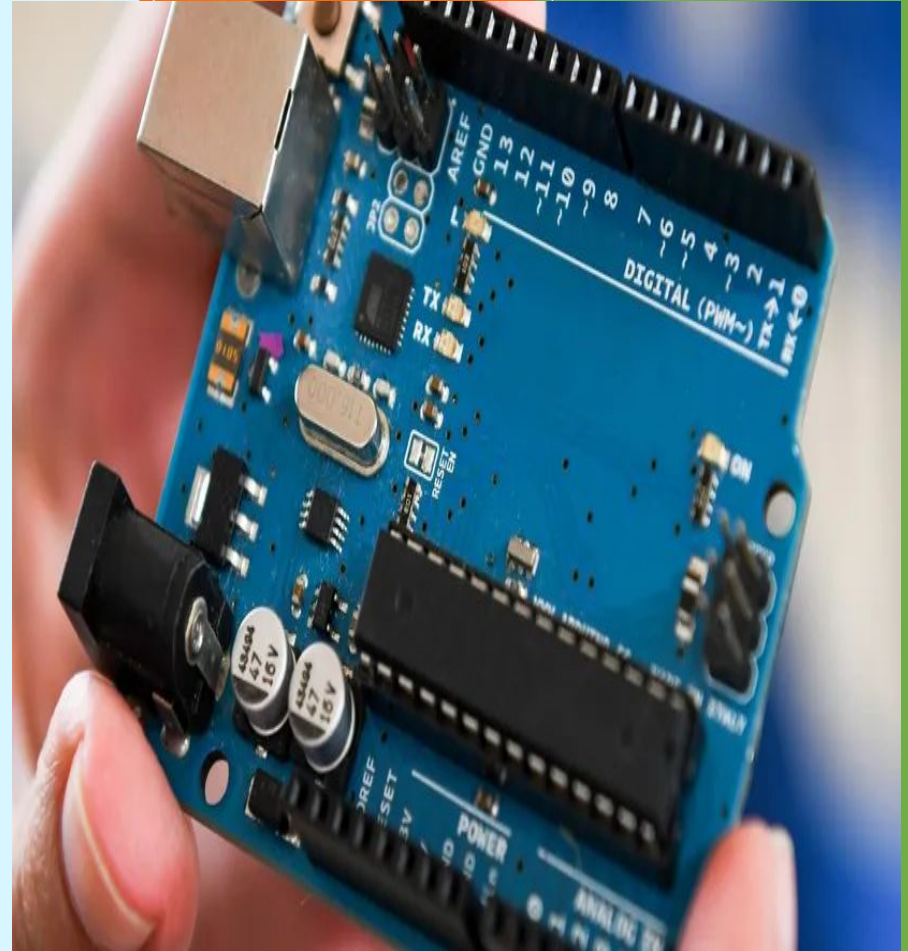
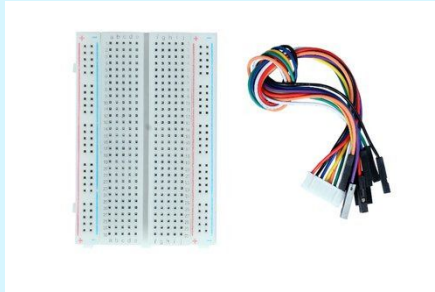
Introduction:

Object detection is a crucial task in computer vision, with applications ranging from surveillance and autonomous driving to medical imaging and retail analytics. In recent years, advancements in deep learning techniques, particularly convolutional neural networks (CNNs), have significantly improved the accuracy and efficiency of object detection systems. These systems can now accurately identify and localize objects within images or videos, enabling various real-world applications.

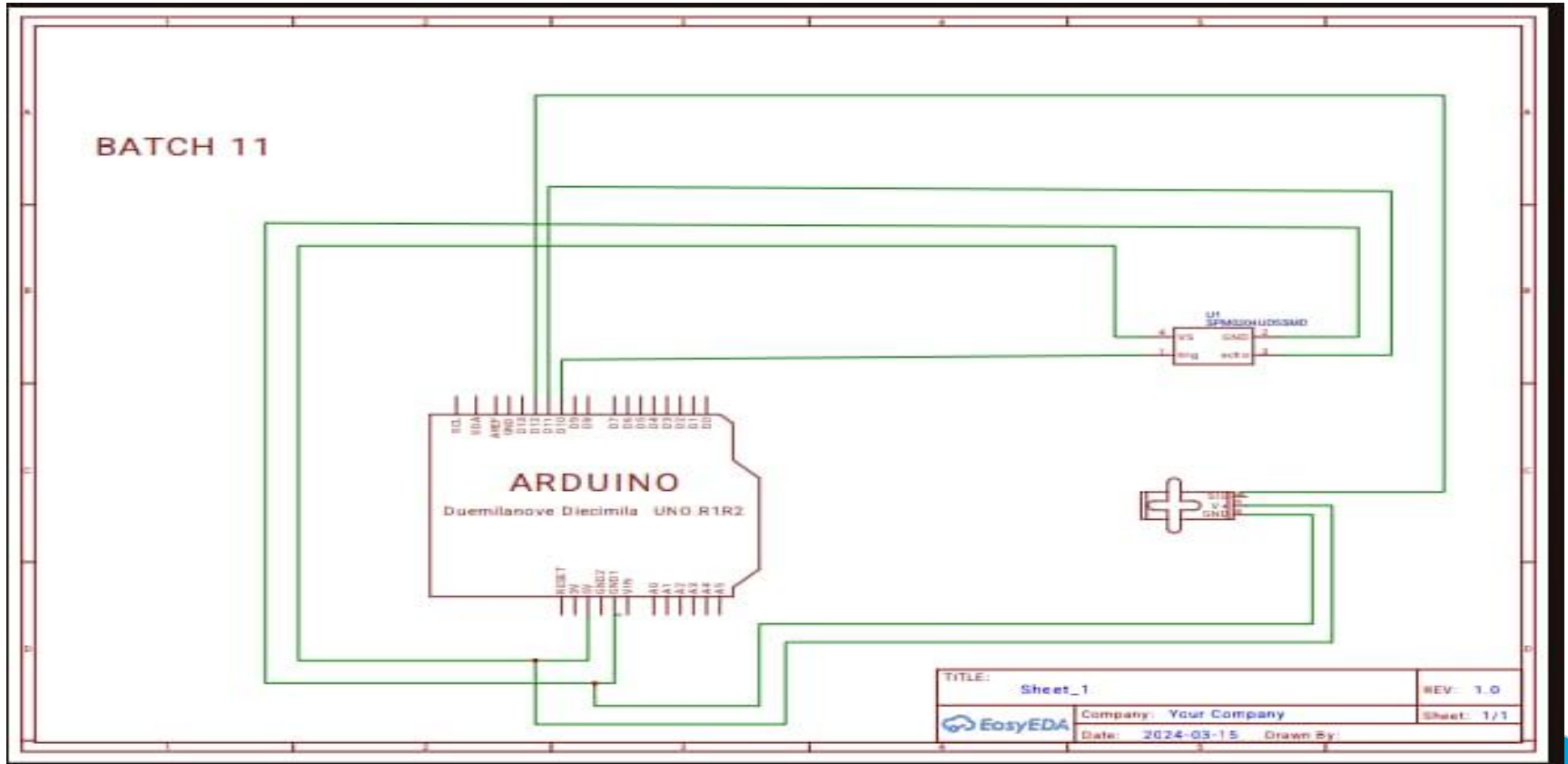
The purpose of our project is to develop an object detection system using a servo motor and a sonic sensor. By integrating these components, we aim to create a cost-effective and versatile solution for detecting objects in the system's vicinity.

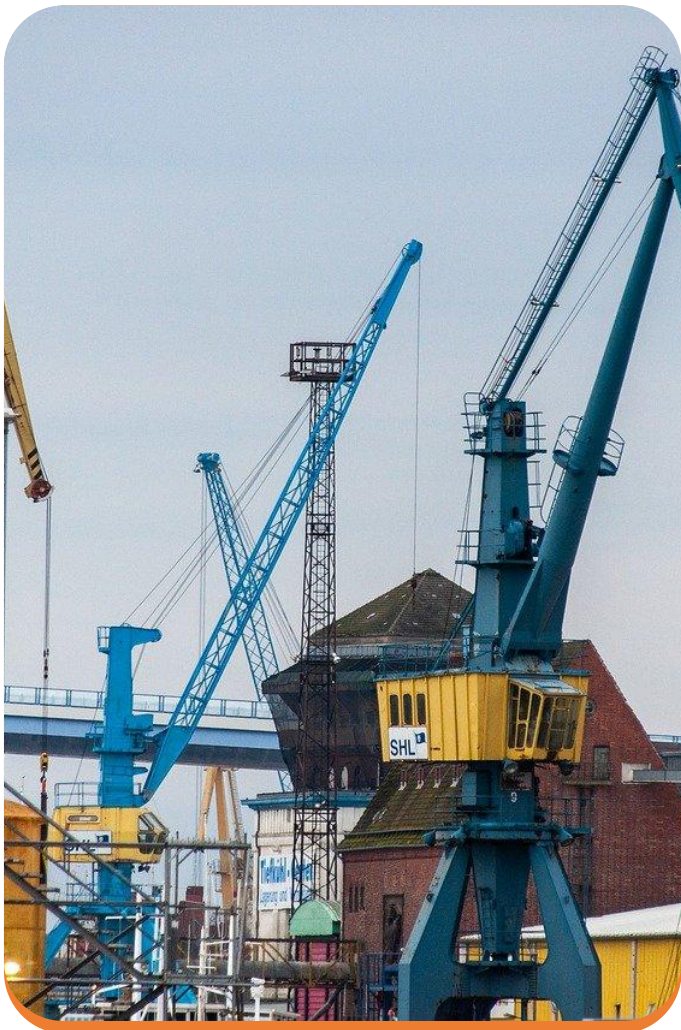
Components Used

- Ultrasonic sensor module
- Microcontroller (e.g., Arduino)
- Breadboard and jumper wires
- Power source (battery or adapter)
- Optional: Display module (LCD or LED)



Circuit Diagram





Results

Overview of the testing process.

- Performance metrics:
- Accuracy of object detection.
- Response time of the system.
- Detection range and limitations.
- Graphs or charts illustrating experimental data.
- Realworld examples of successful object detection scenarios.





Conclusion and Future Scope

Summary of the project outcomes.

- INTRODUCING in vehicle
- Implementation of machine learning algorithms for advanced object recognition.
- Deployment in various applications such as robotics, security systems, and smart infrastructure.



Thank you for your time 😊