
ROBOT

O - Obstacle Avoiding
B - Bluetooth Control
H - Human Following

Robot

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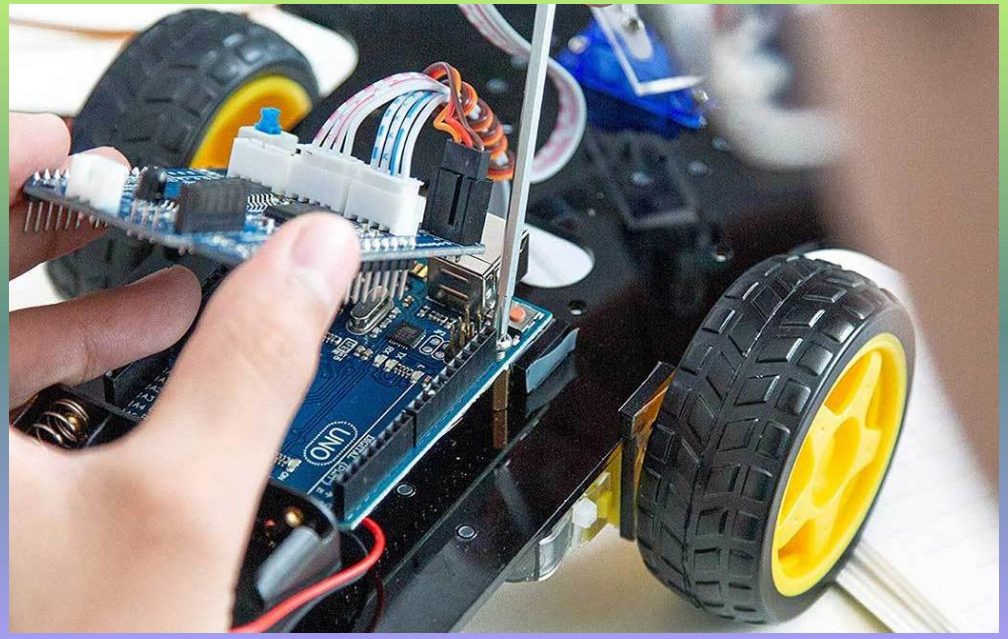
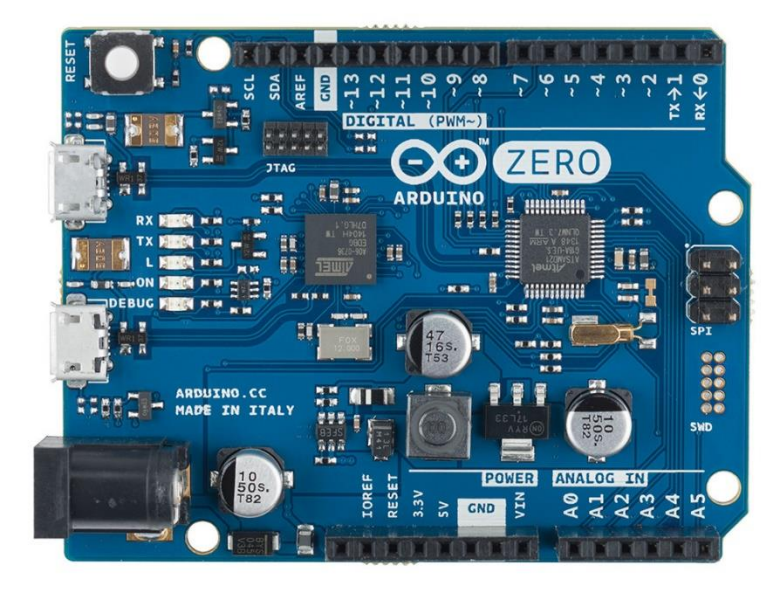
Introduction

- An Arduino Bluetooth control uses Arduino microcontroller as its main control system for controlling a device, such as a robot, using a Bluetooth connection to send commands wirelessly.
- Human following is a type of behaviour in which a robot follows a person as they move.
- Such a robot could have a variety of practical applications, such as assisting people with mobility issues, serving as a personal assistant, or being used in entertainment or education.

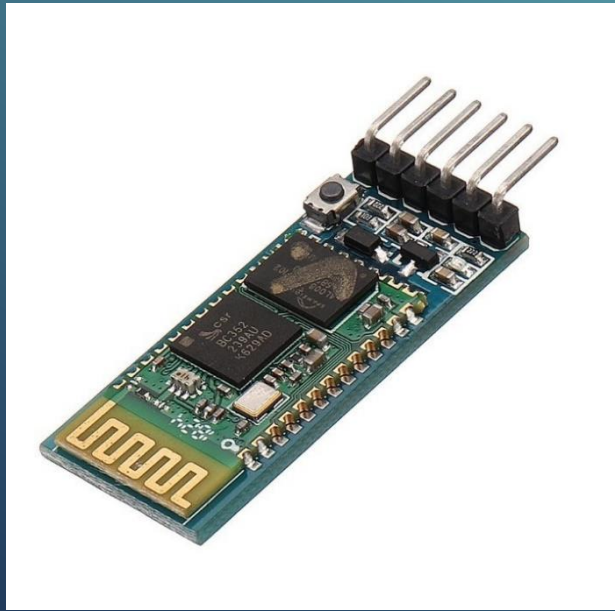
Introduction to Hardware Specification



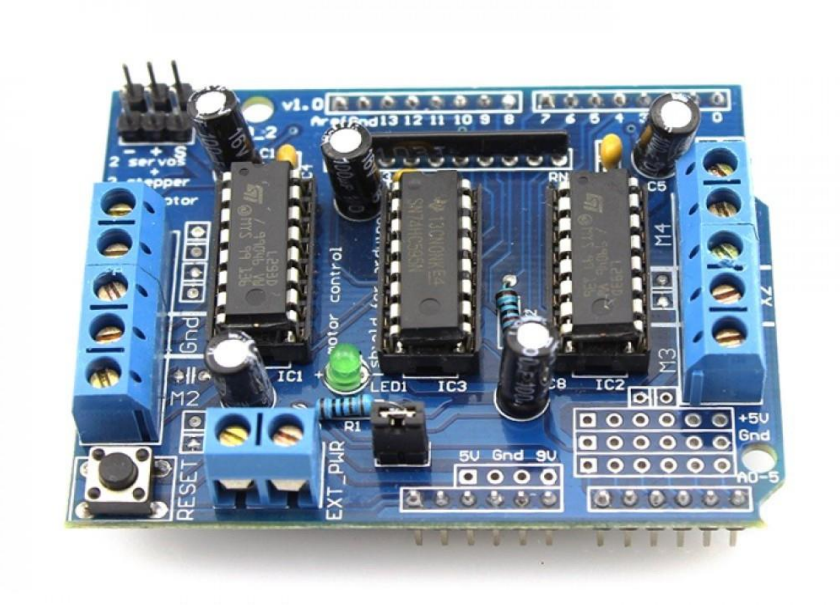
Hardware Used in Our project



Arduino Uno



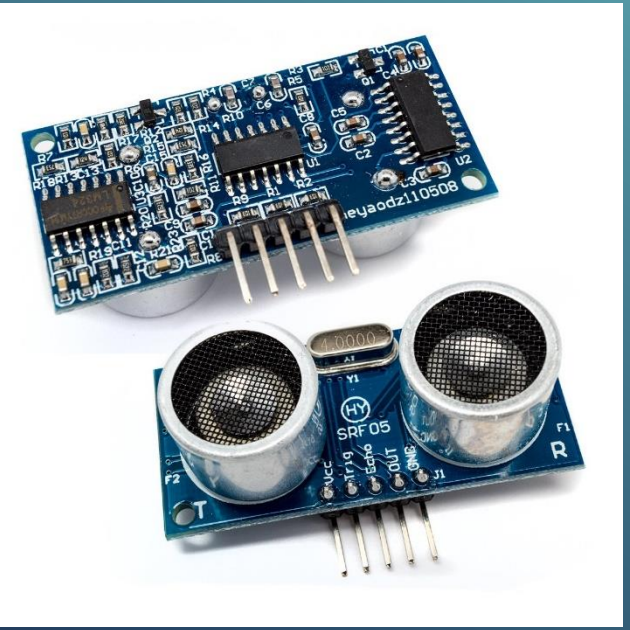
Bluetooth Module



Motor Shield

Hardware Used in Our project

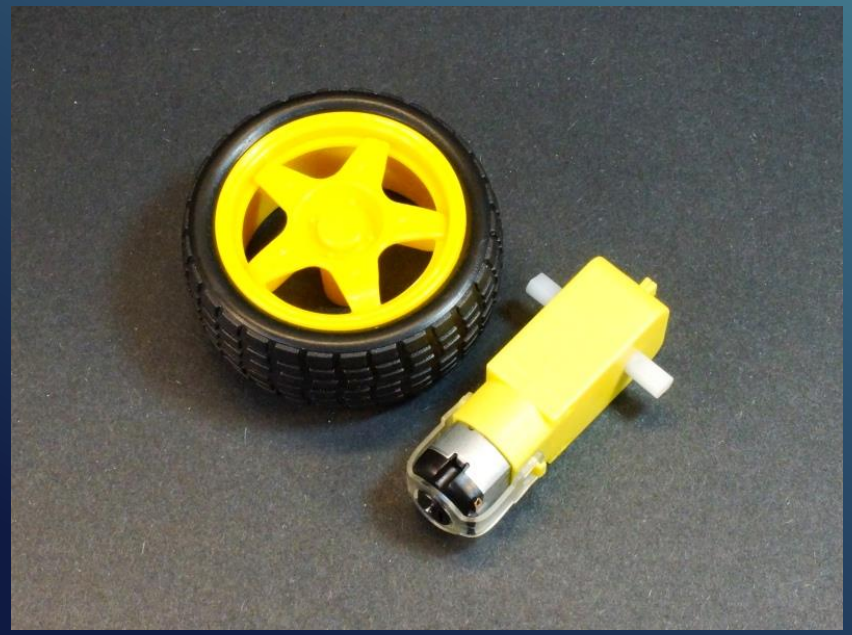
Servo Motor



Ultrasonic Sensor

IR Sensor

Hardware Used in Our project



DC Motor and Wheel

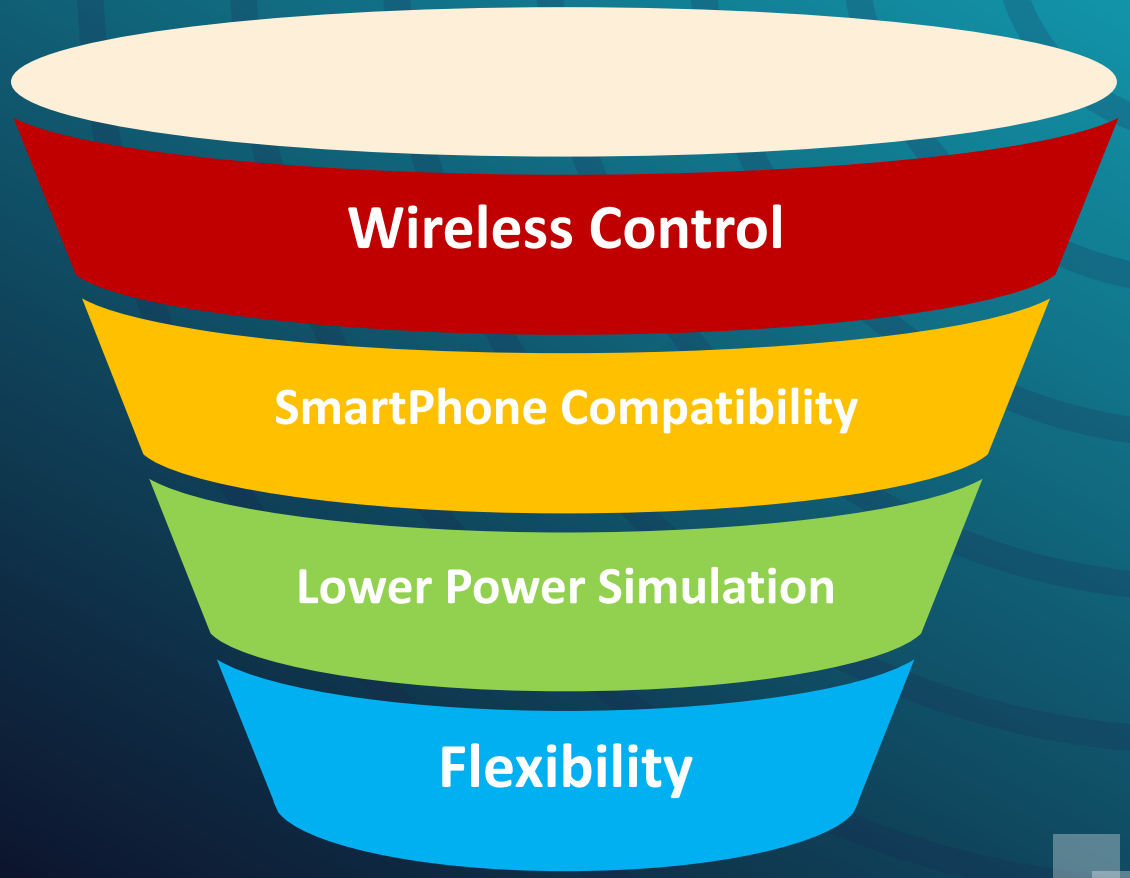
7800 Mah battery

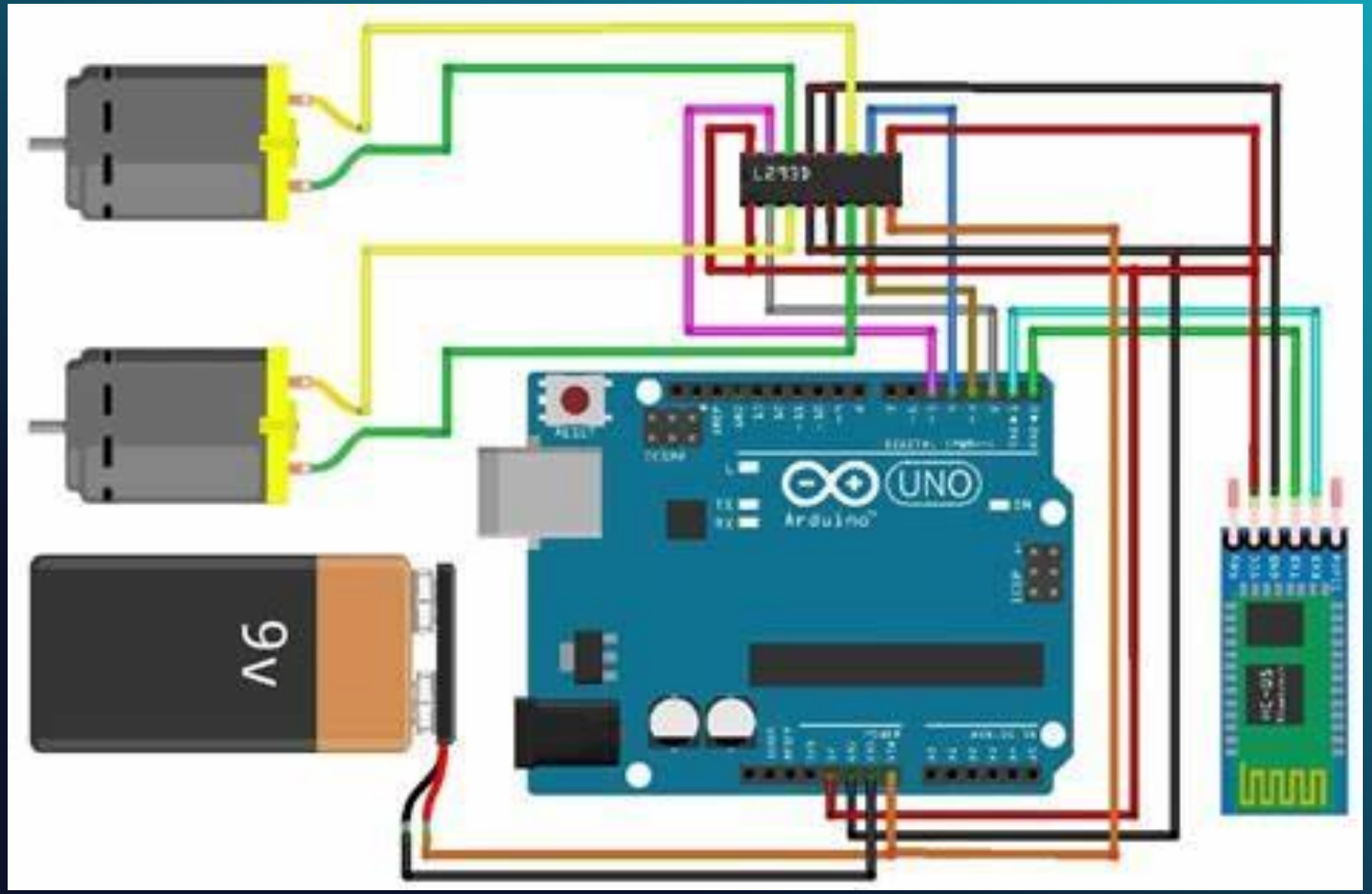
Switch

Objectives of Bluetooth Control Arduino Robot

1. To provide a wireless method
2. To enable remote control of the robot
3. To allow for greater flexibility in controlling
4. To make the robot more accessible to users

Features of Bluetooth Control



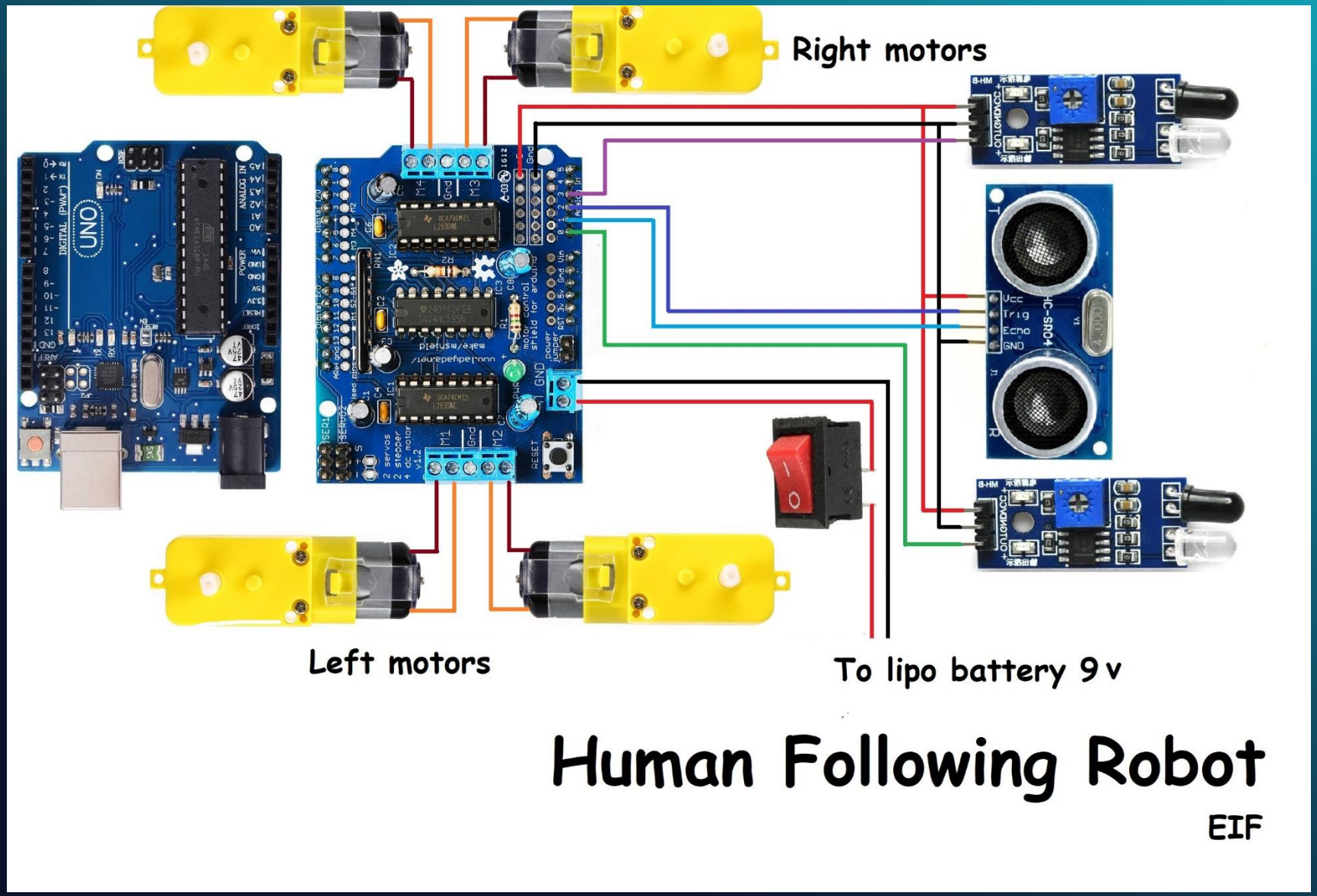

L293D
UNO
Arduino
9V

Objectives of Human Following Robot

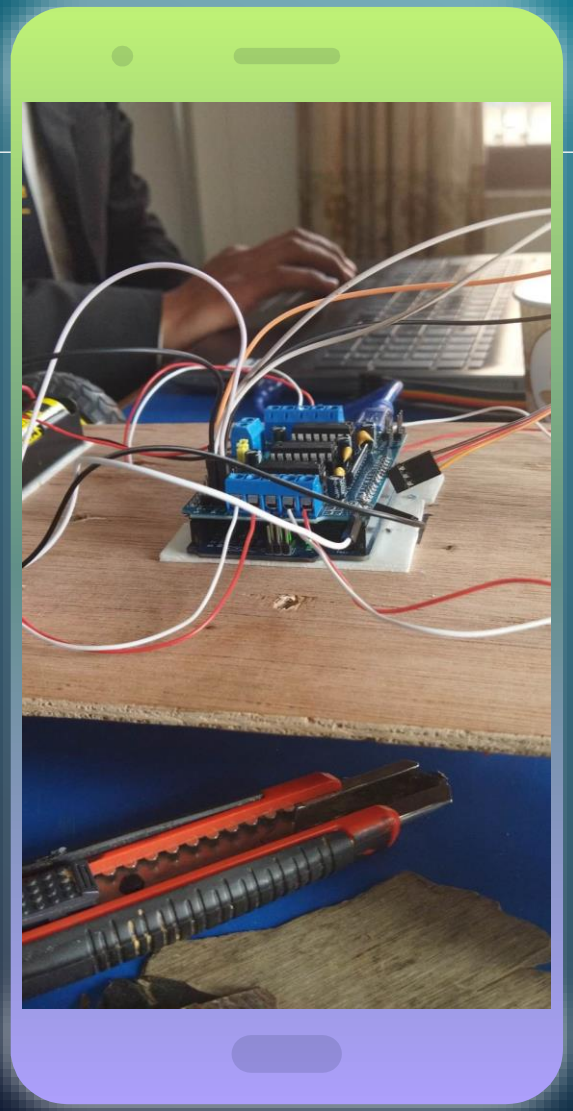
1. To create a robot that can autonomously follow.
2. To develop a system that uses sensors and programming
3. To provide a practical application for a robot with human following capabilities
4. To advance the field of robotics and create new possibilities for human-robot interaction.

Features of Human Following Robot

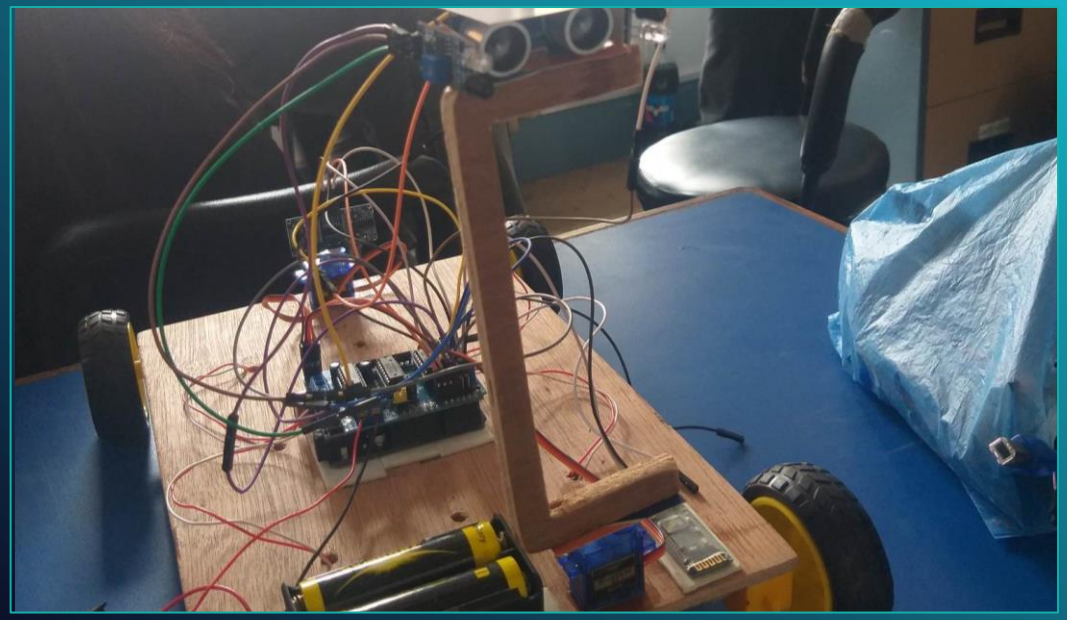
1. • Autonomous Tracking
2. • Real Time Tracking
3. • Obstacle Detection
4. • Navigation Capabilities
5. • Versatility


Right motors
Left motors
To lipo battery 9 v
Human Following Robot
EIF

Problem & Solutions



- Limited Range of Control
- Potential for wire tangling
- Inconvenient control
- Lack of autonomy
- Power Issue



Solutions

Solutions

To overcome the limited range of control and wire tangling, Bluetooth control can be implemented, allowing for wireless control of the robot.

To make control more convenient, a smartphone app can be developed to control the robot, eliminating the need for physical wires or cables.

If the car is not receiving sufficient power, it may not function properly. Ensure that the battery powering the car is fully charged and that the power supply to the Arduino is stable.

To provide assistance to people with mobility issues, a human following robot can be designed specifically to provide assistance in tasks such as carrying objects or opening doors.

To increase interaction, a human following robot can be designed with additional features such as speech recognition and natural language processing, allowing for more natural and intuitive communication with people.

Application of Bluetooth

- Home Automation
- Robotics
- Education

Application of Human

- Health Care
- Personal Assistant
- Entertainment
- Industrial Automation

Future Prospects

- Integration with other technologies
- Enhanced Security
- Increased Automation
- Improvised Navigation
- Enhanced sensor capabilities
- Integration with other technologies

Conclusion

In conclusion, Bluetooth Control Arduino Robot and Human Following Arduino Robot are two technologies that have significant potential for enhancing the functionality and versatility of robotic systems.