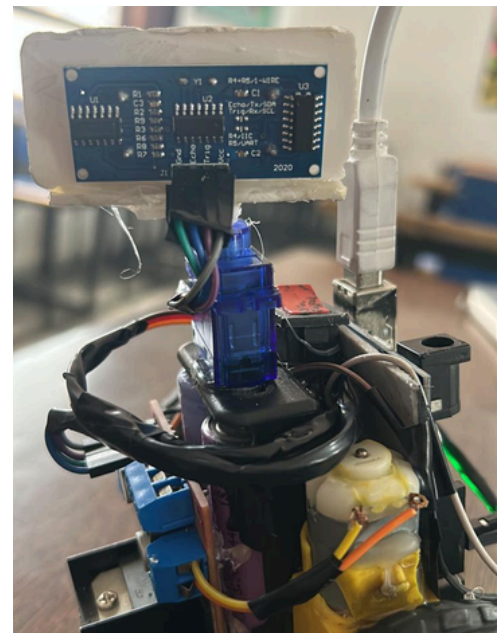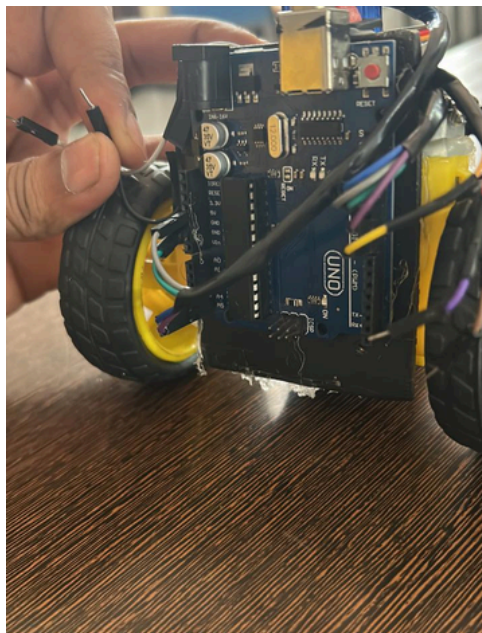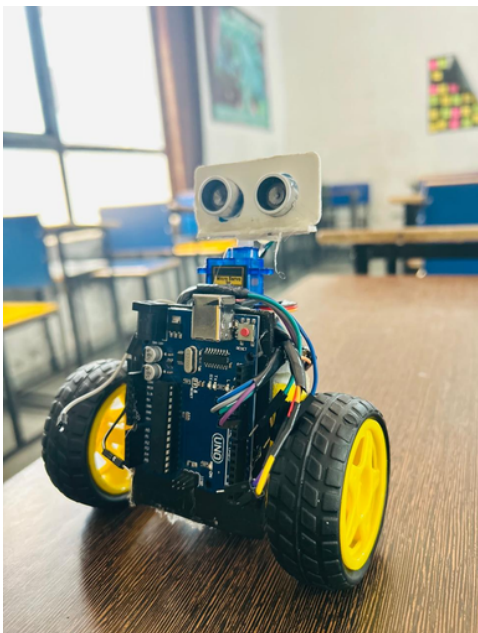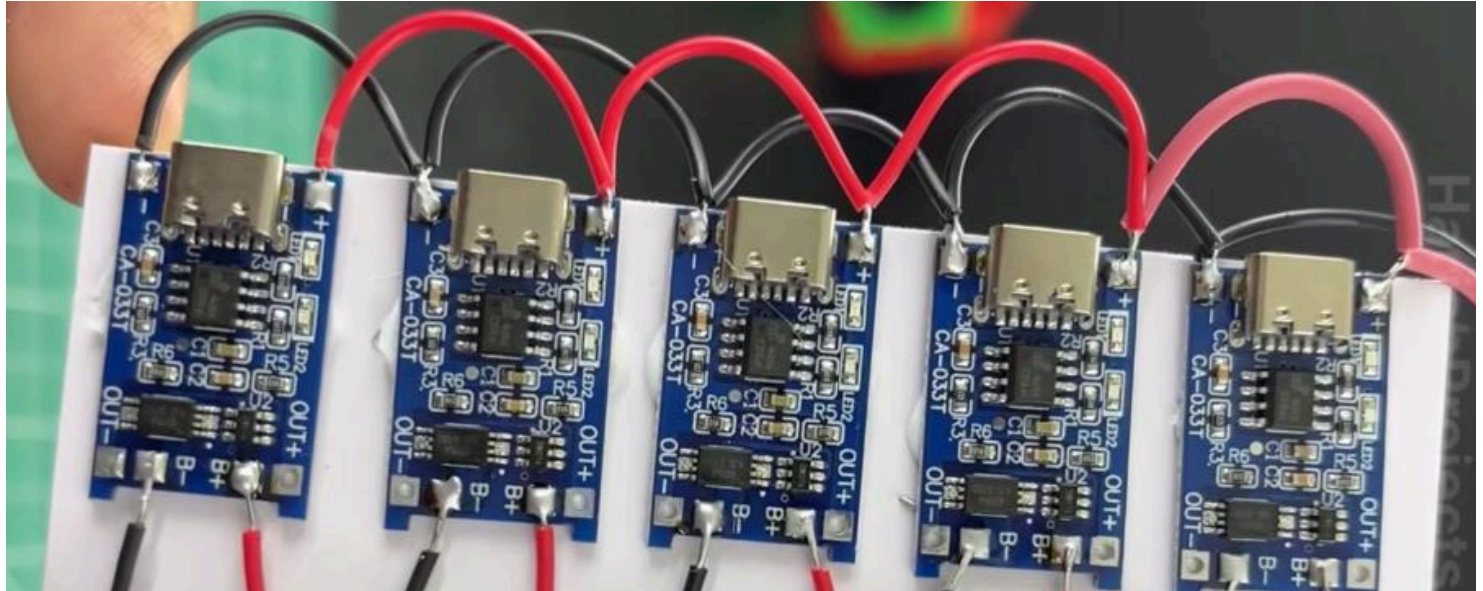# Technoverse

Club project spotlights :

This project showcases a human-following robot built using Arduino and an ultrasonic sensor, demonstrating how machines can sense and respond to human movement. It highlights practical learning through real-time automation and robotics.

Student Voices :

Working on this project helped students understand how sensors and code work together in real life. The hands-on experience boosted confidence, curiosity, and interest in robotics and technology.

Club Name:	Motto	Manager
TECHNOVERSE	Innovate & Illuminate	HARDEEP SINGH

Project Report and Skill Development

## Human Following Project

Hardeep Singh - 10/01/2026

Project Goals: The main goal of the project was to design a robot that can detect and follow a human by maintaining a safe distance. It aimed to introduce students to basic automation and intelligent systems.

Process/ Steps: Students connected the ultrasonic sensor and motors to the Arduino, wrote code to measure distance, and tested movements based on sensor input. Repeated testing and adjustments were done to improve accuracy.

Skills Learned : Through this project, students learned basic programming, sensor integration, problem-solving, and teamwork. It also enhanced their logical thinking and understanding of robotics concepts. Additionally, students developed confidence in hands-on experimentation and real-world application of technology.

Challenges and solutions :

The journey wasn't without difficulties. Maintaining balance, achieving enough motor torque, and ensuring smooth motion were key challenges.
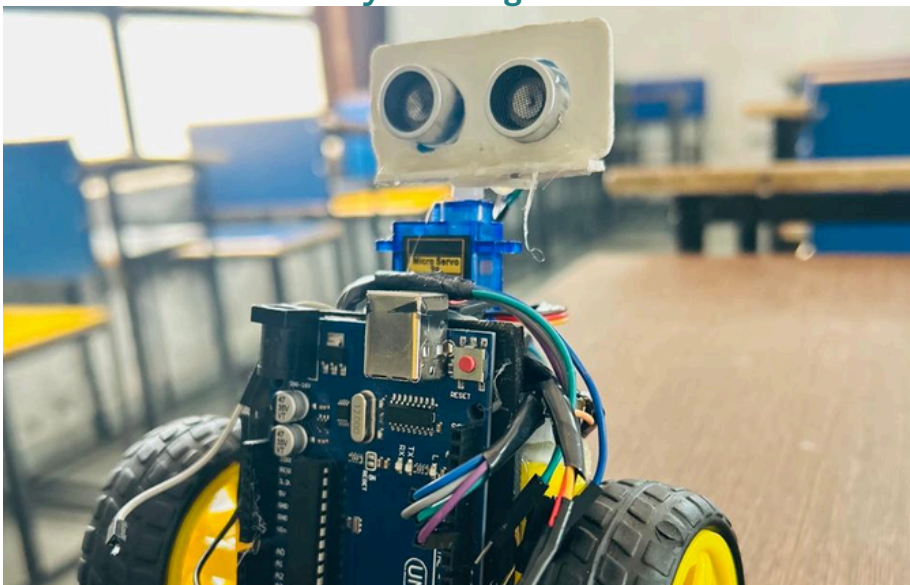
Meet the Team :

Akashdeep Singh VII-G

Jugraj Singh VII-G

Prabhjot Singh VII-F

Paramveer Singh IX -D

Navneet Singh IX -D

Club Name:

TECHNOVERSE

Motto

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Manager

HARDEEP SINGH