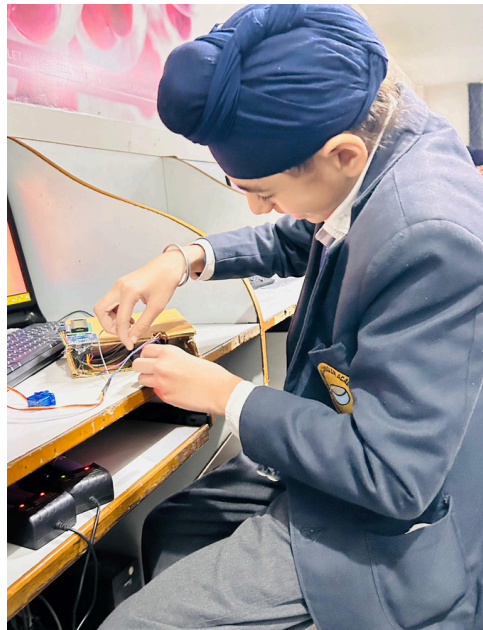


Club project spotlights :

Students have taken a remarkable step forward in innovation by beginning the construction of a robotic leg mechanism—a foundational milestone toward developing a humanoid robot.



Student Voices :

Students shared that the project was exciting and helped them understand how circuits actually work. They enjoyed seeing the LEDs light up in sequence and felt proud of building something on their own. Many said it boosted their confidence in using Arduino and made them eager to try more robotics projects in the future.

Club Name:

TECHNOVERSE

Motto

Innovate & Illuminate

Manager

HARDEEP SINGH

Project Report and Skill Development

Humanoid Robot Project – A Major Step Forward

Hardeep Singh - 10/12/2025



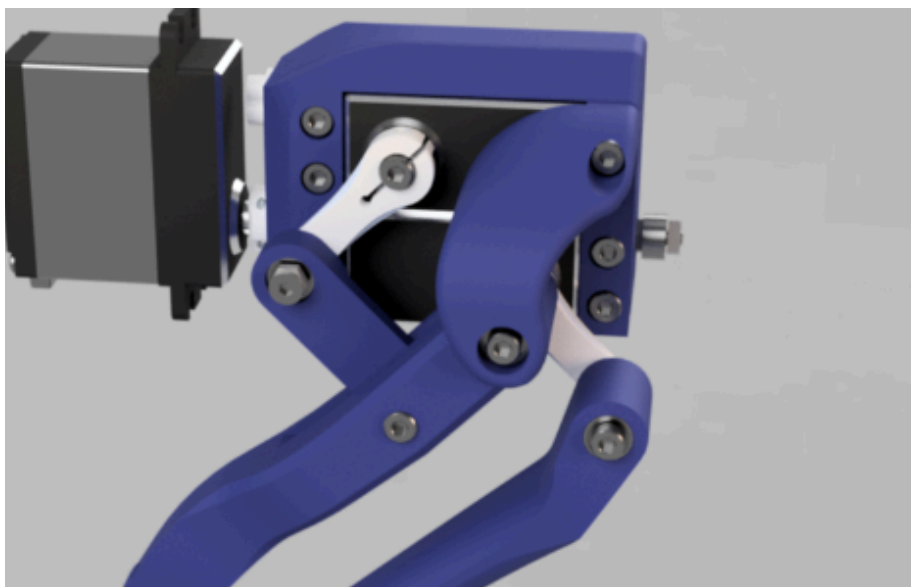
Project Goals: To design and build a motor-driven robotic leg capable of human-like movement, which will later evolve into a fully functional humanoid robot prototype.

Process/ Steps: Students began by sketching the structure, understanding joint motions, and planning how motors and mechanisms would work together. They then selected lightweight materials, assembled the mechanical parts, and programmed the movements to achieve smooth motion.

Skills Learned : Throughout the process, students have learned valuable skills such as mechanical design, motor control, electronic wiring, Arduino programming, and 3D thinking.

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**



**Rabnoor
Singh
VII-C**



**Paramveer
Singh
IX -D**



**Navneet
Singh
IX -D**

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