



CYBORG
ROBOTICS ACADEMY PVT. LTD.

DIPLOMA IN ROBOTICS TECHNOLOGY

DESIGN. BUILD. CODE. **INNOVATE.**

A 52-Week Industry-Oriented
Hands-On Program for Young Innovators



HANDS-ON ROBOTICS



CODING & PROGRAMMING



ELECTRONICS & AUTOMATION



3D DESIGN & PRINTING



DRONES | AR / VR



CAPSTONE SHOWCASES



MECHANICAL
DESIGNING
WITH CODING



CORE
CODING



ELECTRONICS



3D PRINTING



25+
PROJECTS



4
MAJOR
CAPSTONE
SHOWCASES



INDUSTRY
RELEVANT
SKILLS



FUTURE
TECHNOLOGY
EXPOSURE



BUILD A
STRONG
PORTFOLIO

52
WEEKS

OF LEARNING.
INNOVATION.
EXCELLENCE.

THINK LIKE AN **ENGINEER**. BUILD LIKE A **MAKER**. INNOVATE LIKE A **LEADER**.

CYBORG ROBOTICS ACADEMY

Diploma in Robotics Technology



A Year-Long Future Skills Program
for Young Innovators

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ABOUT CYBORG

At CYBORG Robotics Academy, we believe education should go beyond textbooks and memorization. Our mission is to help students become creators, innovators, thinkers and future-ready problem solvers through practical, hands-on learning.

Founded with a vision to make advanced technology education accessible and exciting for children, CYBORG has trained hundreds of students across Robotics, Coding, Electronics, AI, Drones, 3D Designing and Innovation-based learning.

Our students do not just attend classes.

They build.

They experiment.

They fail.

They improve.

And eventually, they innovate.

Over the years, students from CYBORG have represented the academy in multiple national, international robotics competitions and STEM challenges, securing awards across line follower robotics, innovation categories and project-based competitions.

This Diploma in Robotics Technology is designed as a complete transformation journey where students learn mechanical engineering, electronics, coding, design thinking and innovation under one integrated ecosystem.

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PROGRAM OVERVIEW

Diploma in Robotics Technology

Program Duration: 1 Year

Learning Model: Project-Based + Application-Focused Learning

Ideal For: Students interested in Robotics, Engineering, Coding, Innovation, Technology, Design and Future Careers.

Core Philosophy: **"Learn by Doing."**

This program combines:

- Robotics
- Electronics
- Coding
- Design Thinking
- Product Innovation
- Public Speaking
- Presentation Skills
- Team Collaboration
- Portfolio Development
- Real-World Problem Solving

Students gradually progress from beginners to independent creators capable of building fully functional projects and presenting them confidently.

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WHY ROBOTICS EDUCATION MATTERS TODAY

The world is moving towards automation, artificial intelligence, smart systems and technology-driven industries. The careers of tomorrow will demand much more than academic scores.

Students need:

- Problem-solving abilities
- Critical thinking
- Technological confidence
- Communication skills
- Creativity
- Collaboration
- Innovation mindset
- Adaptability

Robotics naturally combines all these skills into one practical learning ecosystem.

A child building a robot is not just learning machines.
They are learning how to think.

PROGRAM STRUCTURE

The Diploma is divided into 5 Major Learning Stages:

1. Mechanical Module
2. Electronics Module
3. Coding Module
4. Specialisation Module
5. Showcase Day + Graduation Ceremony

Each module focuses on both technical learning and personality development.

MODULE 1 — MECHANICAL MODULE

Building Engineering Thinking

The Mechanical Module introduces students to the fundamentals of robotics structures, mechanisms, movement systems and engineering design. Students begin understanding how machines move, how structures are designed and how mechanical systems solve real-world problems.

Topics Covered:

- Design Thinking Fundamentals
- LEGO Spike Prime + EV3 Robotics
- Quarky Robotics
- Robot Construction & Mechanisms
- Motion Systems
- Gear Concepts
- Structural Stability
- Sensor Integration Basics
- Application Building
- Portfolio Documentation

Learning Outcomes:

- Understand engineering design processes
- Build autonomous robotic systems
- Learn prototyping methods
- Improve analytical thinking
- Develop creativity through open-ended challenges
- Build confidence in experimentation

Beyond Robotics Focus:

This module emphasizes:

- Creative confidence
- Team collaboration
- Engineering communication
- Problem decomposition
- Innovation mindset

Capstone Project: Students will create a challenge-based mechanical robot and document their complete development process into a professional project portfolio.

MODULE 2 — ELECTRONICS MODULE

Understanding the Brain Behind Technology

Electronics is the foundation of every smart device around us. This module introduces students to circuits, sensors, controllers and hardware systems that power modern technology. Students learn how machines sense, process and respond to the environment.

Topics Covered:

- Basic Electronics
- Current, Voltage & Circuit Concepts
- Mini Electronics Projects
- Arduino Programming
- Sensors & Actuators
- Breadboard Prototyping
- Circuit Design
- 3D Designing & 3D Printing
- Product Design Thinking
- Hardware Integration

Learning Outcomes:

- Build electronic systems independently
- Learn hardware troubleshooting
- Understand sensor-based automation
- Develop logical thinking
- Explore rapid prototyping
- Build confidence with technical tools

Soft Skills Integrated:

- Patience & debugging mindset
- Precision & attention to detail
- Product presentation
- Documentation skills
- Collaborative project execution

Capstone Project: Students will design and develop a real-world electronics-based solution integrating electronics, fabrication and 3D printing. The goal is to build a meaningful innovation that solves an actual problem.

MODULE 3 — CODING MODULE

Training Young Digital Problem Solvers

Coding is no longer optional in the modern world. This module develops computational thinking and introduces students to logical problem solving through programming and software development. Students move from beginner coding concepts to building actual interactive applications and games.

Topics Covered:

- Financial Literacy Basics
- Python Fundamentals
- Logic Building
- Variables, Loops & Conditions
- Game Development
- Animation & Interactive Systems
- Python with Robotics
- Spike + Python Integration
- Software Problem Solving
- Project Development

Learning Outcomes:

- Build confidence in programming
- Develop logical thinking
- Create interactive software projects
- Learn debugging techniques
- Understand automation logic
- Connect software with hardware systems

Beyond Robotics Integration:

The Coding Module also introduces students to:

- Digital entrepreneurship mindset
- Financial awareness
- Product thinking
- Responsible technology usage

Soft Skills Developed:

- Structured thinking
- Communication of ideas
- Independent problem solving
- Presentation confidence

- Creativity through software creation

Capstone Project:

Students will create a software-based solution focused on solving a real-world challenge through coding and automation.



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MODULE 4 — SPECIALISATION TRACK

Exploring Emerging Technologies

After building strong foundations in robotics, electronics and coding, students move into specialised futuristic technologies. This phase allows students to explore industries shaping the future.

Available Specialisation Tracks:

DRONES

Students learn:

- Drone Fundamentals
- Flight Mechanics
- Safety & Control Systems
- Drone Applications
- Practical Drone Operations
- Innovation Possibilities in Aerial Robotics

Skills Developed:

- Spatial awareness
- Precision control
- Technical confidence
- Risk assessment
- Advanced problem solving

AR / VR / XR

Students explore:

- Virtual Reality Concepts
- Augmented Reality Experiences
- Interactive Digital Environments
- Immersive Technology Basics
- Experience Design

Skills Developed:

- Creative storytelling
- User experience thinking
- Visual communication
- Digital design confidence
- Innovation-driven thinking

MODULE 5 — SHOWCASE DAY & GRADUATION

From Student to Innovator

The final stage of the Diploma focuses on presentation, confidence building and public showcasing. Students present their projects, portfolios and innovations to parents, mentors and invited audiences. This stage transforms technical learning into leadership and communication skills.

Showcase Includes:

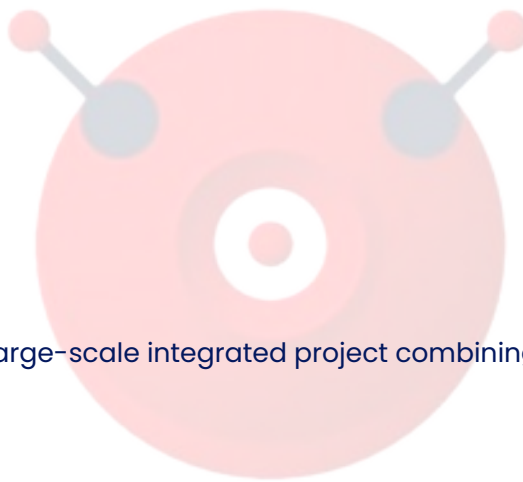
- Project Exhibition
- Live Demonstrations
- Team Presentations
- Innovation Pitching
- Portfolio Showcase
- Graduation Ceremony

Final Cohort Project:

Students collaborate to create a large-scale integrated project combining:

- Robotics
- Coding
- Electronics
- Design Thinking
- Innovation

This final experience prepares students for future competitions, entrepreneurship opportunities and advanced technical learning.



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SOFT SKILLS & PERSONALITY DEVELOPMENT

At CYBORG, we strongly believe robotics education is not only about machines. It is about building confident, capable and future-ready individuals.

Throughout the program, students continuously develop:

- **Communication Skills:** Students regularly present ideas, explain projects and participate in demonstrations.
- **Teamwork & Leadership:** Students work in collaborative project environments where they learn coordination, delegation and leadership.
- **Public Speaking:** Every module encourages presentation-based learning and confidence building.
- **Creative Thinking:** Students are encouraged to innovate instead of simply following instructions.
- **Problem Solving:** Students learn how to approach challenges logically and independently.
- **Growth Mindset:** Failure is treated as part of the learning process.
- **Portfolio Building:** Students maintain project portfolios documenting their progress, innovations and technical journey.

LEARNING APPROACH

- **Project-Based Learning:** Students learn concepts by building actual working projects.
- **Hands-On Labs:** Every session focuses on implementation rather than passive theory.
- **Challenge-Based Activities:** Students regularly participate in innovation and engineering challenges.
- **Industry Exposure:** Students work with tools and technologies used in modern engineering ecosystems.
- **Portfolio-Driven Learning:** Students graduate with documented proof of learning and project work.

WHO SHOULD JOIN?

This Diploma is ideal for students who:

- Love technology and innovation
- Enjoy building things
- Are curious about robotics and coding
- Want practical future-ready skills
- Enjoy creative learning environments
- Wish to participate in competitions and innovation programs

No prior robotics experience is required.

FUTURE OPPORTUNITIES AFTER THIS PROGRAM

Students completing this Diploma gain strong foundations in:

- Robotics
- Coding
- Electronics
- Automation
- Product Design
- Innovation Thinking
- AI & Emerging Technologies

This program helps students prepare for:

- Robotics Competitions
- STEM Innovation Challenges
- Future Engineering Pathways
- Startup Thinking
- Maker Culture
- Advanced Technology Learning



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WHAT MAKES CYBORG DIFFERENT?

- **Practical Learning First:** Students build before they memorize.
- **Innovation-Centric Culture:** We encourage originality and experimentation.
- **Multi-Domain Exposure:** Students experience robotics, electronics, coding and design under one ecosystem.
- **Competition-Driven Excellence:** Students gain exposure to national-level technical standards.
- **Personalized Mentorship:** Every child is guided individually throughout the journey.
- **Confidence Building:** Students learn how to present, explain and defend their ideas.

OUR VISION

To create a generation of confident innovators who are capable of building solutions for the future.

At CYBORG, we are not just teaching robotics.

We are shaping creators, thinkers, leaders and problem solvers.



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CONTACT US

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"Empowering Young Minds Through Technology & Innovation."



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