BOOSTER

Contact Information
Email: sales@booster.tech

EMBODIED INTELLIGENCE

Taught the Right Way

Why Embodied Intelligence

- Real-world interaction (beyond virtual environments)
- Full-stack learning (perception→planning→action)
- Direct mapping to AI research and applications

What Is the Right Way

- Learn by doing, with real humanoid robots.

What We Offer

- Safe, ready-to-use humanoid hardware
- Development tools (no-code and code-based environments)
- A Complete Curriculum for K-12 & Universities, with teaching support



Two Learning Tracks. One Unified Platform.

Unified toolchain for different learning phases



1 VISUAL PROGRAMMING FOR K12

Learning Robots by Seeing and Controlling

Designed for K12 classrooms, this module helps students:

- Understand robot motion, sensing, and behavior
- Build intuition through drag–and–drop programming
- Instantly see how code translates into physical actions
- Learn through interaction, not abstraction

2 BOOSTER STUDIO & SIMULATION PLATFORM

Where Students Train Real Robot Intelligence

For students with programming foundations, we offer:

- A developer–grade toolchain built by Booster Robotics
- Physics–accurate simulation (MuJoCo) for robot behavior training
- Perception, planning, and control system development
- Seamless transfer from simulation to real humanoid robots



Learning Pathways

A scaffolded journey from intuitive discovery to professional–grade engineering and innovative research

L1 8/16 lessons Discovery

LEARNER PROFILE

No prior programming experience; visual learners with typical attention spans of 15—20 minutes

TEACHING OBJECTIVES

- Explore how humanoid robots sense, decide, and act
- Safely operate the robot and switch between interaction modes
- Create simple interactive behaviors using conditional logic
- Project: Face–aware interaction (detect, wave, and speak)

L2 8/16/32 lessons Foundations

LEARNER PROFILE

Basic logical thinking, able to read simple flowcharts, beginning Python syntax.

TEACHING OBJECTIVES

- Understand and structure the perception—decision—action pipeline
- Transition seamlessly between block–based and Python programming
- Design and execute multi–step robotic tasks (10—15 steps)
- Project: Autonomous Obstacle Avoidance

L3 16/32/48 lessons Applied Engineering

LEARNER PROFILE

Proficient in Python, capable of debugging, basic physics/math knowledge.

TEACHING OBJECTIVES

- Develop real–world robotics systems using ROS 2 architecture
- Integrate perception (YOLO) with vision–based localization (PnP)
- Deliver full–stack autonomous behaviors from perception to control
- Project: Autonomous Humanoid Soccer Player

L4 16/32/48 lessons Research & Innovation

LEARNER PROFILE

Proficient in Python/C++, understands ML and control theory, seeks research.

TEACHING OBJECTIVES

- Build and optimize learning–based robot behaviors (e.g., RL locomotion)
- Bridge simulation and reality with Sim2Real pipelines
- Conduct structured experiments and generate publishable results
- Project: Publishable research or competition–ready system

Teacher Training System

1 DAY Beginner Level

Focus: Core teaching skills, hardware/software operation, and classroom management.

Key Modules: • Hardware Setup • App Controls / No-code platforms

2-3 DAYS Intermediate Workshop POPULAR

Focus: In-depth PBL design, complex troubleshooting, and "Perception & Action" decoupling.

Key Modules: • PBL Methodology • Python Debugging

CERTIFICATION Advanced Mentors

Focus: Developing school-level experts for localized training and innovation leadership.

Key Modules: • Curriculum customization • Research Guidance

Ongoing Support Materials





