

Engineering the Future: Mastering Industrial Robotics

INDUSTRIAL ROBOTIC ARM



GTL 2026

5 January
29 January

Free of charge for all participants

Weekdays: 4:30 PM - 7:30 PM
Saturdays: 9:00 AM - 4:00 PM

📍 Riffa Views International School

MIT International Science & Technology Initiatives
Massachusetts Institute of Technology in Collaboration With RVIS

KEY BENEFITS

- MIT instructors and world-class mentorship
- Certificate of Participation
- Full subscriptions to required software and AI tools
- RVIS Scholarships opportunities available

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GTL 2026 - Program Overview

5 January - 29 January

Final Showcase: January 29, 2026

DESCRIPTION

Students will design, assemble, and program robotic arms, learning mechanical systems, servo control, automation, and human-machine interaction through hands-on projects.

DETAILS

Duration: 4 Weeks (January 5-29, 2026)
Students: 30 Students
Instructors: 5 Innovators
Target: High School Students (Grades 9-12)
Total Hours: 76 hours
Starting Date: January 5, 2026

SKILLS STUDENTS WILL LEARN

- Robotics design and assembly.
- Stepper motors control and basic electronics.
- Automation programming and AI vision.
- Human-machine interaction concepts.

FUTURE-RELEVANT SKILLS

- Industrial robotics and automation (key for manufacturing & smart factories).
- Basic coding and system integration (essential for Industry 4.0 jobs).

SOFT SKILLS DEVELOPMENT

- Creativity in mechanical design.
- Problem-solving through real-world challenges.
- Teamwork in building and presenting projects.

COMMUNITY IMPACT

- Encourages interest in local manufacturing innovation.
- Prepares youth for careers in industrial automation, a growing sector in the region.

PREREQUISITES

- **Required:** Basic understanding of electronics, robotics concepts, and automation.
- **Recommended:** Previous Experience with Arduino.