

Since 2007, Making IT Experts & Products

Course: Robotics

Duration: 60 Hrs (Changeable) | Fees: Individual / Batch

Since 2007, Nestsoft TechnoMaster has been providing training, internships, and services in IT technologies, both online and offline, with the expertise of **over 250 industry experts**. We have delivered internships, training, and seminars to more than 50,000 students, resulting in numerous success stories. **We offer 100% placement support through JobsNEAR.in**

Our Courses/Internship

- Python/Django Fullstack
- Artificial Intelligence
- Machine Learning
- Data Science
- Software Testing (All)
- Wordpress, Woocommerce
- Digital Marketing, SEO
- Php/MySQL, Laravel
- Flutter, Android, IOS
- Asp.net MVC
- Web Design, Javascript
- Angular JS, React JS
- CCNA, MCSA, CCNP
- AWS, GCP, Azure
- Odoo, Salesforce, Sap
- Microsoft Excel
- Ethical Hacking



Syllabus on the Next Page ..



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- * Robotics Training “ Syllabus

Module 1: Introduction to Robotics

- * What is Robotics? Scope & Applications
- * History and Evolution of Robotics
- * Types of Robots (Industrial, Service, Autonomous, Humanoid, etc.)
- * Future Trends in Robotics & AI

Module 2: Basics of Electronics & Hardware

- * Introduction to Sensors & Actuators
- * Motors (DC, Servo, Stepper)
- * Power Supply & Circuit Design Basics
- * Microcontrollers (Arduino, Raspberry Pi, ESP32 overview)

Module 3: Programming for Robotics

- * Basics of C, C++ & Python for Robotics
- * Writing control programs for motors and sensors
- * Data acquisition and signal processing
- * Real-time debugging and testing


Module 4: Embedded Systems & Microcontrollers


- * Arduino IDE & Hands-on Projects
- * Raspberry Pi: Linux setup, GPIO programming
- * Communication Protocols (UART, I2C, SPI, Bluetooth, Wi-Fi)
- * Building simple automation projects

Module 5: Robotics Design & Mechanical Concepts

- * Introduction to CAD (SolidWorks/AutoCAD basics)

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- * Kinematics & Dynamics of Robots
- * Chassis Design & Fabrication
- * Assembling Robotic Components

Module 6: Artificial Intelligence & IoT in Robotics

- * Basics of AI & Machine Learning for Robotics
- * Computer Vision (OpenCV introduction)
- * Speech & Gesture Recognition in Robotics
- * IoT-enabled Robots (remote monitoring & control)

Module 7: Advanced Robotics Applications

- * Line Following Robot
- * Obstacle Avoidance Robot
- * Pick & Place Robotic Arm
- * Drone & Autonomous Vehicle Basics
- * Human-Robot Interaction Concepts


Module 8: Industry Projects & Case Studies


- * Real-world robotics project design
- * Hands-on capstone projects (IoT Robot, Robotic Arm, AI-based Robot)
- * Industry case studies (manufacturing, healthcare, defense, automation)


Module 9: Career Development & Placement Support

- * Resume Building for Robotics Careers
- * Interview Preparation (Technical + HR)
- * Placement Assistance & Career Guidance

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- * Freelance & Startup Opportunities in Robotics

Module 10: Certification & Final Assessment

- * Final Project Presentation & Evaluation
- * Certification of Completion (Industry Recognized)
- * Pathways to Higher Studies & International Opportunities

(Click on Course for more details)

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- Thank You -

N.B: This syllabus is not final and can be customized as per requirements / updates.

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