



# Embedded Technosolutions

Venture of IIT Bombay & VJTI Alumni

**3** Times IIT Bombay Robo Competition Winner

**Industrial Certified**  
**School Junior Scientist Program Level - 3**



**1st Step to Build Your Child Future in**  
**Technology & Automation**



**Skill India Mission**

कौशल भारत - कुशल भारत



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## Robotics & Artificial Intelligence are the Future of Automation

Let Your Child Understand these Things at  
School Level so that They Become Future  
Ready With IIT Bombay Alumni





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**Government of India (MSME) & ISO 9001-2015**  
**Approved Organisation**  
**Running by IIT Bombay & VJTI Alumni**



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## **\*Importance of Robotics Education at School Level\***

1. In A Survey Done by “**World Economic Forum**”,It has Proved that the Combination of Science, Technology, Engineering & Mathematics are Very Important to Improve the “**Analytical Skills**” at School Level
2. Apart from Theoretical Studies “**Project Based Learning**” is Very Important which Improves the Technical Intelligence, Innovations, Leadership Qualities, Analytical Skills & Team Management Qualities at School Level.
3. World is changing very fast. Ones upon a time there was a PC revolution, Then Mobile Revolution, now in future Robotics will be part of our lives.
4. The global robotics industry is growing rapidly and the trend towards its adoption is increasing in India as students.
5. Robotics will play a major role in the future so it is imperative that we prepare the present generation of students at school level for this transition
6. It Create curiosity, excitement and exploration among school children in Science, Mathematics and Technology.



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7. Enable children to become motivated and engaged in Science, Mathematics and Technology (SMT) through observation, experimentation, inference, drawing, model, building, rational reasoning, test ability etc.
8. Whenever students work on any technical projects that improve their team activity.
9. They also have an opportunity to showcase their talent to the world through National & International level Robotics Competition.



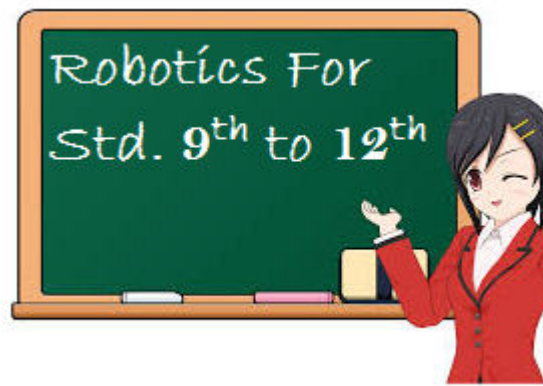
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## Robotics Training Syllabus



### Theory

1. Introduction to Robotics
2. Robotics Mechanism & Computations
3. Science & Mathematical Principles used in Robot Building
4. Electrical & Mechanical Concepts Involved in Robot Building
5. Introduction to Various Major Components used in Robot Building
6. Schematic & Interconnections of Various Modules
7. Basic Robotics Module Designing



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## **Arduino Platform**

8. Introduction to Open Source Platform Arduino
9. Introduction to Arduino IDE

## **Arduino C Programming**

10. Embedded C Programming for Arduino
11. Arduino Libraries & Basic Module Interfacing
12. Logic Families

## **Wireless Communication Technology**

13. Introduction to Wireless Technology
14. Introduction to Wireless domain Advantages & Applications

## **DTMF Technology**

15. Introduction of DTMF mobile technology
16. DTMF technology interfacing in real application
17. DTMF programming

## **Radio Frequency Technology (RF)**

18. Introduction of RF Communication
19. RF technology interfacing in real application
20. RF module programming





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## **RFID Technology**

21. Introduction to RFID communication
22. RFID technology interfacing in real application
23. RFID module programming

## **Bluetooth Technology**

24. Introduction to Bluetooth Communication
25. Bluetooth technology interfacing in real application
26. Bluetooth module programming

## **Practicals & Projects Designing**

1. Basic Wired Robot Development
2. DTMF Mobile Controlled Wireless Robot
3. RF Remote Control Robot
4. RFID Based Security System
5. Bluetooth & Android Based Robot Designing
6. Wireless Home Automation
7. Traffic Light Designing
8. Burglar Detection using Arduino



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<b>Sr.No</b>	<b>Parameters</b>	<b>Schedule</b>
<b>1</b>	<b>Duration</b>	6 Months Lectures on Saturday / Week
<b>2</b>	<b>Sessions</b>	1 Project / Per 4 Lectures (Theory + 12 Projects)
<b>3</b>	<b>Fee</b>	Rs. 2150 / Month



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## Contact Us

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