



**Embedded Technosolutions**

Venture of IIT Bombay & VJTI Alumni

**3** Times IIT Bombay Robo Competition Winner

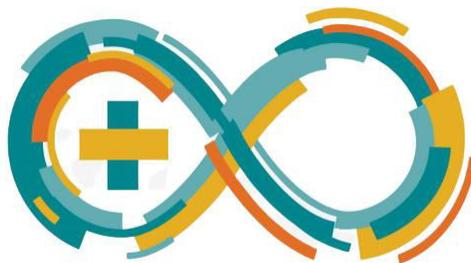
**Industrial Certified**

**Arduino Developer**

**All India Council For Technical Skill  
Development (AICTSD)**

**In Association with**

**IITians Embedded Technosolution**

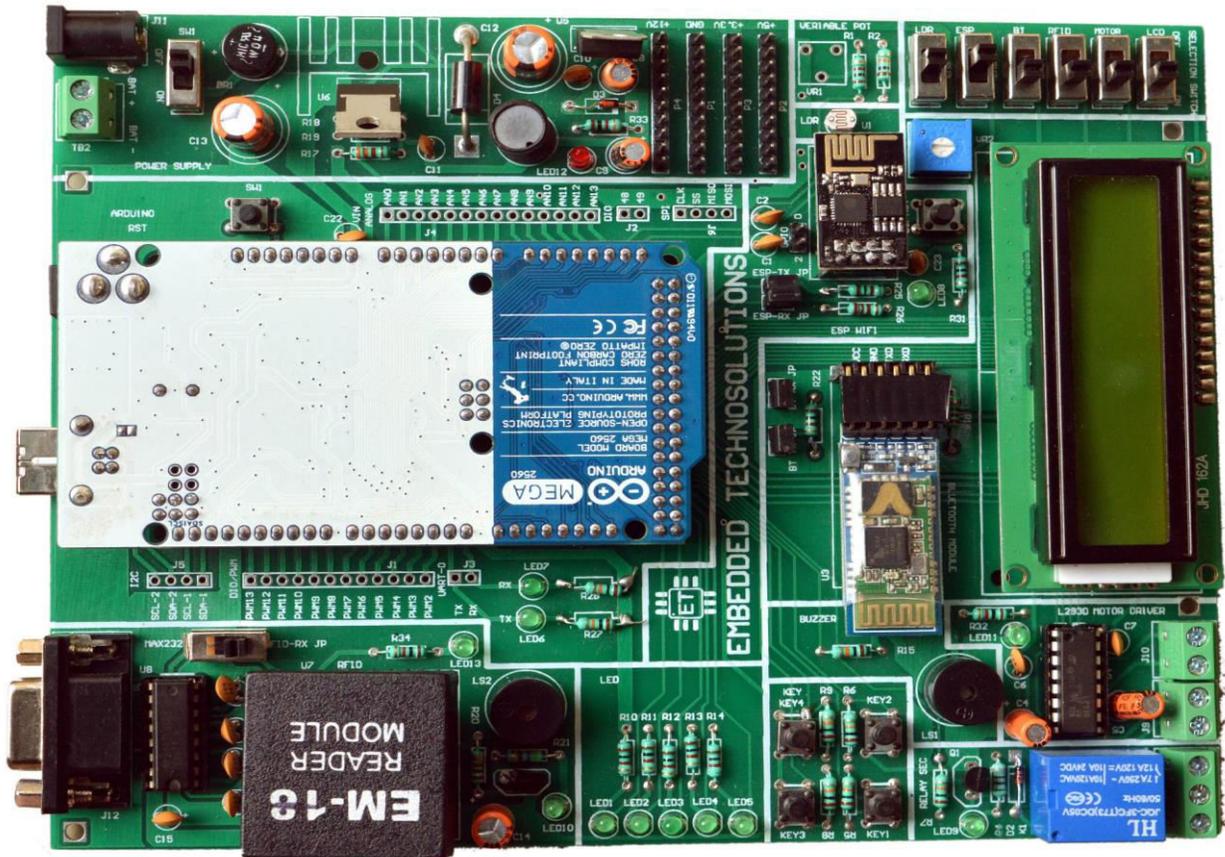




# Embedded Technosolutions

Venture of IIT Bombay & VJTI Alumni

**3** Times IIT Bombay Robo Competition Winner



B R A N D

PROMISE

We Guarantee You that, You Can Develop Your Projects by  
Your Own After This Training Program



# **Embedded Technosolutions**

Venture of IIT Bombay & VJTI Alumni

**3** Times IIT Bombay Robo Competition Winner

---



## **Arduino Developer**

### **Module 1 - Introduction**

- Introduction to Embedded System with Arduino
- Scope of Arduino in Embedded Systems

### **Module 2 - Arduino Architecture**

- Introduction to Arduino series
- Hardware architecture of Arduino controller Series
- Controller I/O ports
- Memories of controller
- Concept of Serial communication ,Interrupt etc.

### **Module 3 - Arduino IDE**

- Introduction of Embedded Arduino Software
- Introduction of Embedded C Programming and programming concepts for Arduino



# **Embedded Technosolutions**

Venture of IIT Bombay & VJTI Alumni

## **3 Times IIT Bombay Robo Competition Winner**

---

- Introduction of program flashing and error correction

### **Module 4 - Arduino IO Interface**

- I/O interfacing concept
- Led Blinking logic and delay generation routine

### **Module 5 - LCD Interfacing**

- Character LCD 16x2 interfacing logic and concept
- Introduction of LCD command and data signals
- LCD based programming
- Practical project based on character LCD

### **Module 6 - Keypad Interfacing**

- Matrix keypad interfacing logic and concept
- Introduction of key pad interfacing using polling method
- Matrix keypad programming
- Practical project based on matrix keypad

### **Module 7 - Serial Communication**

- Introduction to serial communication
- Serial communication concept
- Introduction of serial communication firmware and registers
- Serial communication programming
- Practical application based on Serial communication



# **Embedded Technosolutions**

Venture of IIT Bombay & VJTI Alumni

**3 Times IIT Bombay Robo Competition Winner**

---

## **Module 8 - Interrupt & Execution**

- Introduction of interrupts in controller
- Interrupt logic and concept
- Interrupt routines / programming
- Key interfacing using interrupt
- Practical application based on interrupt

## **Module 9 - ADC Interfacing & Applications Designing**

- Introduction of ADC
- ADC interfacing
- ADC programming

## **Module 10 - LDR Interfacing & Applications Designing**

- Introduction of LDR technology
- LDR technology interfacing in real application
- LDR programming
- Practical project design based on LDR technology with Arduino

## **Module 11 - RFID Interfacing & Applications Designing**

- Introduction to RF & RFID communication
- RFID technology interfacing in real application
- RFID module programming
- Practical project design based on RFID technology with Arduino



# **Embedded Technosolutions**

Venture of IIT Bombay & VJTI Alumni

**3** Times IIT Bombay Robo Competition Winner

---

## **Module 12 - I2C Protocol Interfacing & Applications Designing**

- Introduction of I2C Protocol
- I2C protocol interfacing in real application
- I2C module programming
- Practical project design based on I2C protocol with Arduino

## **Module 13 - Bluetooth Interfacing & Applications Designing**

- Introduction of Bluetooth Communication
- Bluetooth technology interfacing in real application
- Bluetooth module programming
- Practical project design based on Bluetooth technology

## **Module 14 - Project Designing & Development**

Practical designing of a project based on above technology with Arduino



# **Embedded Technosolutions**

Venture of IIT Bombay & VJTI Alumni

**3 Times IIT Bombay Robo Competition Winner**

---

	<b><u>Live Projects</u> :</b> <b>Arduino Based</b>
<b>1</b>	Traffic Light System
<b>2</b>	RFID Security System Based Door Authentication
<b>3</b>	Bluetooth Technology Based Home Automation
<b>4</b>	Wireless Appliance Controlling System using Android App
<b>5</b>	Notice Board
<b>6</b>	Room Temperature Controlling System with PC Interface
<b>7</b>	Password Protected Locker System
<b>8</b>	Light Intensity Operated Systems