

ArduBotics Robotics Workshop

(Autonomous Robotics, Bluetooth Controlled, Android Controlled Robotics)

Company Details

We, **Innovians Technologies (Unit of PRATS Technologies Pvt. Ltd.)**, are the India's fastest growing company in the field of Practical Educational Training, Professional Training, Corporate Training, Web & IT Services, with most advanced technologies & experience in hand. We majorly deal in Educational Workshop and Training, Corporate Training, Motivational Seminar, Software Development, Web Development, Consultancy & Out-sourcing, Placement Assistance. Our operations is in various countries like UAE, Malaysia, Oman, Kuwait, Thailand, USA, etc.

Innovians Technologies delivers interactive training & workshops which equip its participants with better practical understanding and preparation for jobs in industry. The hands-on sessions and lectures are designed based on current industry trends and draw on the rich experience of instructors and organizers. We focus on Android, Ethical Hacking, Embedded Systems, Robotics, Automation, Web Development, Social Networking, 3D Animation, Automobile Mechanics, Aircraft Designing, Share Market, 2G & 3G Technology and many more.

The Corporate Training programs of Innovians Technologies encompass a wide range of skills that are integral & necessary part of everyday business, daylife or work environment. In our quest to address every organizational development need, Innovians Technologies offer a gamut of training programs, which ranges from Motivational Seminar, Faculty/Staff Development Training, 5S Training, Personality Development, Professional Skills Training & Foreign Languages.

Our Mission

Innovians Technologies mission is to offer world class, Professional Training & Development Solutions. We strive to offer excellence, professionalism, and a long-term commitment to remain among the premier Training & Development companies in India. Innovians Technologies and its staff are respected for their dedication and contribution to the industry.

Our Vision

Our values are embraced in the hearts and minds of every Innovians Technologies team member who then embodies these values and shares them throughout our company and with our clients. You will find three core values at work: Relation - We listen, learn, and help selflessly in our interactions with others. Humanity - Through business, we foster a strong sense of corporate social responsibility. Commitment - We honor our commitments and act with responsibility in all our relationships. These values are the building blocks of our work culture.

Our Team of Professional

Our team, as our imperative asset, works with great zeal to realize the mutual interests of our organization. Our team is made of professionals including professional trainers, managers, consultants, business development staff, quality auditor and other workforces. Each member in our team is selected on the basis of their domain knowledge in respective fields. To upgrade the expertise of our team we also conduct regular training exercises. It helps us to be paralleled with new changes occurring time after time in the market. Our team members are highly efficient and understand the needs of clients as precisely as possible.

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What is Robotics?

Robotics is the study of robots. Robots are machines that can be used to do jobs. Some robots can do work by themselves. Other robots must always have a person telling them what to do.

What is Arduino?

Arduino is a tool for the design and development of embedded computer systems, consisting of a simple open hardware design for a single-board microcontroller, with embedded I/O support and a standard programming language.

About the Workshop

ArduBotics is a workshop on intelligent Autonomous, microcontroller based with multiple sensor robots. This workshop is dedicated to clear the basic concept of electronic & electrical components. In this workshop student will make their Self Brain Robot which will do various activities like:

- Line Follower
- Obstacle Detector
- Edge Avoider Robot
- Bluetooth Controlled Robot
- Voice Controlled Robot (Android App)
- Android App Controlled Robot (Gesture Controlled Robot)
- Developing Own Android App for Controlling Robot

Topics to be Covered in Workshop

- Introduction
 - Starting with embedded systems
 - AVR Microcontroller Programming
 - Arduino jargon and terms
 - Arduino Basics
 - Arduino Architecture
 - Arduino board layout. What are the resources available
 - H-Bridge
 - Bluetooth Module
 - DC Geared Motors
 - IR-Sensor
- Programming fundamentals (C language)
- Robot Assembling
- Development & Testing on Arduino Board
 - **Example 1:** Basic LED program
 - **Example 2:** LED Blinking Program
 - **Example 3:** Integrating IR Sensor with Arduino
- **Robot 1:** Line Follower Robot
- **Robot 2:** Obstacle Avoider Robot
- **Robot 3:** Android App Based Controlled Robot over Bluetooth (Designing Own Android App)
- **Robot 4:** Voice Controlled Robot using Android Smartphone
- **Robot 5:** Gesture Controlled Robot using Android Smartphone
- **Robot 6:** Edge Avoider Robot

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Rules

Eligibility:

Students having valid ID cards from recognized educational institutions are eligible for the workshop.

Type of participation:

Both Team and Individual participation are allowed but Team Registrations are preferable since this workshop include one takeaway Robotics Kit in a Group of 4-5 per team.

Pre-requisites:

A laptop per team which should have at least 1GB RAM with Windows OS. The USB ports of the laptop should be in working condition and each participant should have Smart phone (preferably Android) with Internet connection.

Cost Details:

The cost of the workshop is INR 1350/- per head.

FAQs?

1) Who can attend this workshop?

Any mobile phone user who is a tech enthusiast wishing to make something cool will find this really good.

2) Is any prior knowledge required to attend the workshop?

No prior knowledge is required, but basic programming knowledge will be very useful.

3) Is the workshop going to be theoretical?

Nope! You will be given a brief introduction about Robotics & Arduino Programming and then there will be a hands-on session with the provided kit. So 10% Theory & 90% Hand-On Session.

4) I don't have laptop can I still participate.

Yes, you can still participate. During the workshop participants will work in a group of 4 so 1 Laptop will be required per team.

5) How are we going to work during Workshop ?

We will provide the ArduBotics Robotics Kit for the Hands-On purpose during the workshop which will be takeaway kit in a Group of 4-5 participants per team.