# ROOTS

## INTERNATIONAL SCHOOL

*A Great Place to Learn*
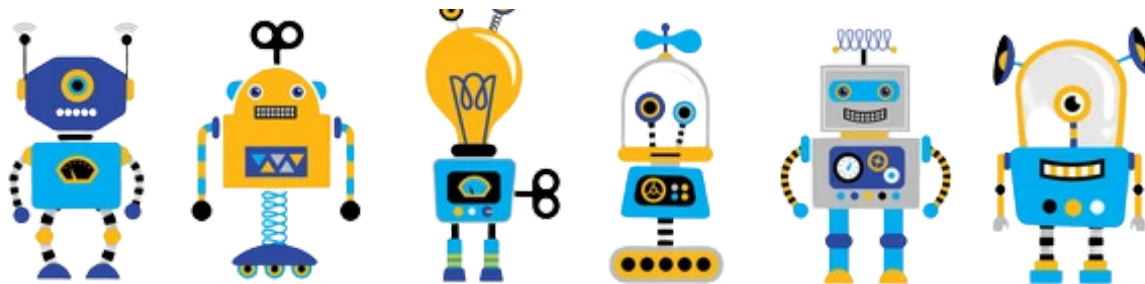
in collaboration with

## eDiY LaBs

### MAD ABOUT INNOVATION

organizes three days hands on training cum workshop on

# BASICS OF ROBOTICS

**(18.04.2023 to 20.04.2023)**

For Details Visit

## www.ediylabs.com

# WORKSHOP PLAN

## DAY-I:

- **Introduction to Robotics**
- **Basics of Electronics**
- **Voltage, Current and Resistors**
- **Ohm's Law and LED Basics**
- **Basics of bread board & battery connection**
- **Introduction to Software(Pictoblox)**
- **Introduction to Hardware(Arduino Uno)**
- **Basics of scrach 3.0(Block based coding)**
- **Project 1: Blinking of LED**
- **Project 2: LED Chaser**
- **Project 3: Traffic Light Control system**

## DAY-II:

- **Introduction to Seven segment display**
- **Project 4: Number Counter System**
- **Basics of RGB LED & buzzer**
- **Project 5: Smart RGB Night Lamp**
- **Basics of IR module**
- **Project 6: Object detection & Alert using buzzer**
- **Basics of LDR module**
- **Project 7: Smart Street light using LDR**

## DAY-III:

- **Interfacing of Flame Sensor module**
- **Project 8: Fire detect and alert system**
- **Interfacing of Joystick module**
- **Project 9: Joystick Controlled LED**
- **Interfacing a Push button**
- **Project 10: On and off led using a button**
- **COMPETITION**
- **Build an innovative project that solves a real life problem and demonstrate your learning from this course.**

**CONCEPT DISCUSSION OF**

- **Assembly of 2 Wheel Robot**
- **Line follower robot**
- **Obstacle avoidance robot**
- **SmartBlind Stick**

By the end of this course, students will have created some amazing projects and also will have improved their logical thinking skills necessary to achieve professional results. They will be able to apply these skills to any project and will take their robotics development skills to the next level!

**Requirements:**

- No prior programming knowledge is required to learn this development course.

- You should have a PC/Laptop with good Internet connection and Google Chrome browser.

*Note: Kit will provided for practice and will be taken back at the end of the workshop.*

**Registration Link**
**www.ediylabs.com/event/**

**For Technical Help contact**
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