# ROBOTICS WORKSHOP

DO YOU WANT TO TURN YOUR DREAMS
INTO REALITY?
DO YOU WANT TO MAKE TECHNOLOGY
THAT WINS YOU LAURELS?
DO YOU WANT TO BATTLE IT OUT WITH
THE SMARTEST BRAINS IN THE COUNTRY?

Then this is your chance, enter the field of Competitive Robotics and let your Robots do the talking for you.



### AN INTRODUCTION TO ROBOTICS

UNDERSTANDING BASIC ROBOTS
1) ROBO SUMO

- 2) ROBO SOCCER
- 3) ROBO RACING

#### AN INTRODUCTION TO ARDUINO

Each student will be given easy programmes to write & then implement on Arduino. Further, capabilities of Arduino will also be understood hands-on by each student through following bots:

1) LINE FOLLOWER: Programming of sensors, Assembly & Construction & finally, full live demonstration of Line Follower doing its Circuit.

- 2) SOUND BOT: Programming of sensors & Live Demonstration
- 3) OBSTACLE AVOIDING BOT: Programming of Sensors & Live Demonstration
- 4) RF CONTROLLED BOT: Understanding Receiver Technology & Circuit followed by Live Demonstration

#### **WIRELESS CIRCUITS**

Receiver Technology, Constructing a Wireless Circuit & Comparison: Wireless vs Wired Circuits.

All students will try to implement and understand a Wired & Wireless Circuit

ALL THE ABOVE TOPICS WILL BE COVERED BY PROFESSIONALS WHO HAVE WON NATIONAL LEVEL ROBOTICS CHAMPIONSHIP



## BUILD YOUR OWN BATTLEBOT: DREAMS TO REALITY INTRODUCTION TO COMBAT ROBOTICS

- 1. Introduction to Combat Robotics
- 2. Drive Systems

**Optimising Pushing force & traction** 

- 3. Materials and its Properties
- 4. Weapon Systems

Concept behind different Weapons, Weapon

design And Balancing

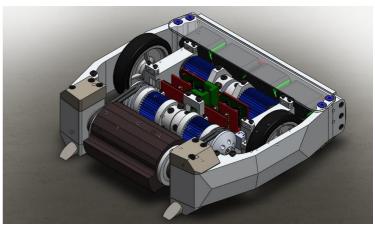
5. Manufacturing Techniques

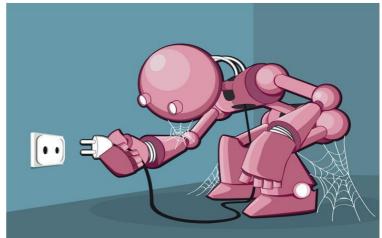
Advanced Manufacturing techniques

techniques

- 6. Electronics and Circuits
- 7. Control our Bots
  Control Team Phoenix Bots as your own
- 8. Assembly Disassembly

Above topics will be covered by Professional Bot Builders, Winners of National Level Events





#### **REGISTRATION FEE:**

- A. INDIVIDUAL: no kit included (cost per student)
  - 1. Basic Robotics and Line followers: Rs.500/-
  - 2. Basic Robotics and Combat Robotics: Rs.500/-
  - 3. Full Workshop: Rs.750/-
- B. GROUP OF 3: includes Line follower kit (Cost per group)
  - 1. Basic Robotics and Line Followers: Rs. 2700/-
  - 2. Basic Robotics, Line Follower and Combat Robotics: Rs. 3600/-
- C. GROUP OF 5: includes Line follower kit (Cost per group)
  - 1. Basic Robotics and Line Followers: Rs. 3500/-
  - 2. Basic Robotics, Line Follower and Combat Robotics: Rs. 4500/-
- D. ADD ON KITS: (cost per kit)
  - 1. Line Follower Kit: Rs. 2000/-
  - 2. Beginner Robosoccer Kits: 1100/-



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