## Mobile Robotics Zonal/ State Competitions

## **About the Competition:**

Competitors will be given 4/6 Hrs to complete the task. Sample task will be published in advance The task to be accomplished in the competition will be of 30% to 40% change from the sample task and will be of the nature that it can be accomplished without additional infrastructure change for the sample task robot fabricated. The competitors are required to study and fabricate a robot on the guidelines declared for competition

The competitors has to submit technical documentation of the robot fabricated .It shall include

- 1. Frame/ Structural elements Organisation
- 2. Wiring System Organisation
- 3. Mobility Management System Organisation
- 4. Object Management System Organisation
- 5. Programming with Algorithm

NB: Robot Structural shall be fabricated by the competitors prior to competition . The details of the structural will be checked for ingenuity. Avoid ready made parts as far as possible Drawings with dimensions and material details has to be provided for individual components. Include 3D Assembly Drawings as far as possible. Robot has to be dismantled and reassembled in the competition venue. No restriction for the usage of sponsored /make of components

Play field made in the competition venue dimension and path way dimension will be published in advance for the sizing of robot to be fabricated.

Set of standard tools will be provided in the venue includes

Soldering Iron, De soldering Iron/ Wick, Multimeters 21/2 Digit with nominal accuracy available in the market, Hand drills, Insulation Tapes, Screw Driver Set, Spanner set , Pliers, Tweezers, Paper knifes, Glue gun, Super glue, Hook Up wires, Wire Strippers, Wire Cutter Hand drill, Axo blade with frame 6 inch and 12 inch etc will be made available Any specific tools like allen key, flower screw drivers etc will have to be brought by competitors

Any microcontroller, programming tools can be chosen by the candidates according to their wish. No restrictions It shall be the responsibility of the competitor to arrange controller/ Programming tools

Relevant safety /protective materials has to be used by the competitors during competition. All participants has to abide rules and regulation regarding Health, safety and environment and has to be strictly observed at the competition. Organisers are not liable for any injury/ damage associated with participation. First aid will be available in the venue in the event of unforeseen causalities