

Shrikrishna Educational & cultural Mandal's
Shri Gulabrao Deokar College of Engineering Jalgaon.
C.E.S.A.
(Computer Engineering Student Association)

“TECHNO-ERA 2011”

A National level Technical Event

ROBOTICS

ZIP-ZAP-ZOOM (ROBO-RACE)

The challenge is to make the robot (manually controlled) whose task is to complete the track in shortest possible time i.e. build a fastest bot. The robot that completes the track in the minimum time is the winner.

General Guidelines

- A team can have maximum 3 members.
- Only two members are allowed into the arena, one for controlling and another one for assisting.
- Each team must declare a name for their machine at the time of competition.
- The machines you build will be first checked for size and safety.
- Coordinators have the right to disqualify any robot whose working mechanism or game strategy is considered hazardous in any way.
- In case of any dispute, the coordinator's decision will be considered final and binding to all.
- Each and every participant team should have a valid ID card.

Robot Specification

- Dimensions (max)- 25cm x 25cm x 25cm (l x b x h)
- Voltage – 24V max
- Current – 5Amp max
- Weight(max)- 3kg
- Power supply -
 1. Power supply can be derived from batteries or through external source (220v/50 Hz).
 2. Voltage at any point must not exceed 24V DC during the game.
 3. The organizers will provide AC/DC power supply. Any eliminator, adaptor, extensions etc. required will have to be arranged by participants themselves.
- Control wire (from robot to remote control) must be in the range 3 to 5 meters.
- Control mode- wired or wireless.

Rules

- Track width is 30 cm.
- Robot is required to complete the given track in minimum time.
- The Track will contain U-shape turns, Zigzag turns, Narrow paths, elevated paths etc.
- Obstacles in the track include marbles, speed-breakers, sand, oil, waters, glass etc. Some surprise obstacles will also be present.
- The performance of the robot will be judged on the basis of the time it takes to complete the track.
- If the robot fails to complete the track it will be judged by the number of checkpoints it covers.
- Robot should pass from all check points and reach to finish line to end the race.
- Only one skip and three hand touches are allowed.
- Penalties will be given for skip and hand touch.
- The participants are not allowed to damage the track, or indulge in any argument with coordinators, this will lead to disqualification of their team.
- No practice runs are allowed.
- No human intervention is allowed once the time starts.

AGGRESSION (ROBO-WAR)

An electro-mechanical robot (manually controlled) has to be designed which push the opponent into the pit or outside the arena. Related mechanisms are allowed to do the same.

General Guidelines

- A team can have maximum 3 members.
- Only two members are allowed into the arena, one for controlling and another one for assisting.
- Each team must declare a name for their machine at the time of competition.
- The machines you build will be first checked for size and safety.
- Coordinators have the right to disqualify any robot whose working mechanism or game strategy is considered hazardous in any way.
- In case of any dispute, the coordinator's decision will be considered final and binding to all.
- Each and every participant team should have a valid ID card.

Robot Specification

- Dimensions (max)- 30cm x 30cm x 30cm (l x b x h)
- Voltage – 24V max
- Current- 5Amp max
- Weight(max)- 5kg
- Power supply -
 1. Power supply can be derived from batteries or through external source (220v/50 Hz).
 2. Voltage at any point must not exceed 24V DC during the game.
 3. The organizers will provide AC/DC power supply. Any eliminator, adaptor, extensions etc. required will have to be arranged by participants themselves.
- Control wire (from robot to remote control) must be in the range 3 to 5 meters.
- Control mode- wired or wireless.

Rules

- Mechanisms (weapons) for pushing, dragging, gripping, flipping and spinning can be attached to bot.
- The robots must not contain any combustible (flammable), corrosive, or otherwise dangerous materials. No explosive, compressive or expansive, either internal or external is permitted. Any robot whose strategy or operation is considered dangerous can be disqualified by the judges due to consideration of safety.
- Any damage to the arena or the related property will lead to disqualification.
- The participants are not allowed to indulge in any argument with coordinator this will lead to disqualification of their team.
- No practice runs are allowed. No human intervention is allowed once the time starts.