



"CREATIVITY IS INTELLIGENCE HAVING FUN."



**Entry Fees: Rs. 250/-**

**Prize Amount: Rs. 2100/- For Winners and Rs.1500 for Runner Up.**

**Last Date of Entry: 27 Sep. 2011 & On Spot Entries depends on the TechZealot committee decision.**

## PROBLEM STATEMENT:

To design a manually operated machine able to have robowar in accordance to the rule.

## ROBOWAR:

Robowar is a combat robotics competition, in which two robot fight and they can be assembled with any kind of mechanical weapons such as blades, saws, claws, etc. but cannot have any liquid based weapons or projectiles or strong electromagnets or flammable substances.

## SPECIFICATIONS:

### ❖ BOTS:

- Robo should be made in such a way that it can fit into a 2x2x2(maximum) feet box.
- Maximum weight of robot should not exceed than 15kg.
- The external device used to control the machine or any external tank is not included in the size constraint.
- The machine should be controlled by a wireless remote control mechanism or wired one throughout the war.
- In case of wireless system, it should have a minimum four frequency remote control circuit or two dual control circuits or a transmitter-receiver paired module so that the frequency interferences with opponent team can be avoided (in case of any interference in the wireless systems, they will not be considered for rematch or in the results).
- Remote controls that are readily available in the market may also be Used.
- The machine must not be made from Lego parts, or any ready-made kit, if we find such machine it will be disqualified.
- If the machine is wired then the wire should remain slack under all circumstances during the competition. All the wires coming out of the Machine should be stacked as single unit. The wires should be properly insulated.
- It is necessary for all that your bot must be electrically or electronically powered if you use any type of mechanical powered system like **IC ENGINE** or other you are out of the competition.

### ❖ WEAPONS SYSTEMS:

- Robots can have any kind of cutters, flippers, saws, hammers, lifting devices etc. as weapons, with the following exceptions.
  - ✚ Liquid projectiles.
  - ✚ Acid based Weapons.
  - ✚ EMP generators
  - ✚ Any kind of flammable liquid.
  - ✚ Flame-producing weapons.
  - ✚ Any kind of explosive material.
  - ✚ Nets, glue or any other entanglement devices
  - ✚ High power magnets or electromagnets, Radio jammers.

### ❖ ARENA:

- Arena should be cubical (7ft x7ftx7ft) in shape open from top and two or one entry gate will be present for placing bot in it. Wall may be transparent glass or net which is clearly visible from outside.
- Participant keep in mind that your wire should be remain sufficient.
- Exact arena will opened on the event day, as it is subjected to change & will be informed to participants before commencement of the event.

### ❖ BATTERIES & POWER:

- Batteries must be sealed, immobilized electrolyte types (gel cells, lithium, NiCad, or dry cells).
- The electric voltage anywhere in the machine should not be more than 24V DC at any point of time On board power supply of 24V DC will be provided you can also use your own power supply.

### ❖ GAME RULE:

- Maximum 6min. for each war.
- If the war does not end in 6min. then war will be start again.
- Maximum 4 participants in a team.
- If the participants are not present at the arena on the given time slot then that team will be disqualified.
- Burning type of instruments not allowed.
- The machines are not allowed to leave any loose parts on any part of the arena.
- Judges decision shall be treated as final and binding on all.
- If any machine remain immobilize for 1 min it will treated passive and opponent will win the match.
- In case of both teams immobilize for 1 min both team will be disqualify.
- One or two operator will operate machine in the event.

### ❖ CRITERIA FOR VICTORY

- A robot will be declared immobile if it cannot display linear motion of at least one inch in a timed period of 60 seconds.
- A robot that is deemed unsafe by the judges after the match has begun will be disqualified and therefore declared the loser. The match will be immediately halted and the opponent will be awarded a win.
- Points will be given on the basis of aggression and damage.
- The time spend by the bot on war zone is to be considered in case of defensive match.
- The maximum time spend by the bot on war zone is to be the criteria of victory.

### ❖ GENERAL RULES:

- Any team that is not ready at the time specified will be eliminated from the competition automatically.
- The teams must adhere to the spirit of healthy competition. The decision of winner will be given on the basis of aggression, attacking, and pushing capability of opponent robot.
- Judges reserve the right to disqualify any team indulged in misbehavior.
- The name of your machine must be prominently displayed on the machine.

### ❖ JUDGING CRITERIA:

- Teams will be judge on the basis of time trials.
- Judges decision shall be treated as final and binding on all.

### ❖ TEAM SPECIFICATION:

- A team may consist of a maximum of 4members.
- Students from different educational institutes can form a team.

### ❖ ELIGIBILITY:

- All students with a valid identity card of their respective educational Institutes are eligible to participate in the event.
- Students should carry their identity card at time of reporting.

### ❖ CERTIFICATE POLICY:

- Certificate of Excellence will be awarded to all winners.
- Certificates of Participation will be given to all the teams that will participate in the event, but not to the teams which get disqualified due to disobeying any of the competition rules.

### **FOR ANY QUERY CONTACT:**

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