

Robo-War

Manual (Rules & Description)



Student Coordinators

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TECHNOMILLENNIUM 2010

Problem statement:

- To design a manually operated machine able to have robo war in accordance to the rules.

Robo War will be held in two categories:

1. Heavy Weight (8-12 Kg)

2. Light Weight (1-6 Kg)

Machine Specifications (For Heavy Weight Robo War) :

- Robo should be made in such a way that it can be fit into 1.5X1.5 feet box.
- Maximum weight of robot should not exceed than 12 kg.

Machine Specifications (For Light Weight Robo War):

- Robo should be made in such a way that it can be fit into 1.0X1.0 feet box.
- Maximum weight of robot should not exceed than 6 kg.
- Robo Race Bots can also take part in this event. The external device used to control the machine or any external tank is not included in the size constraint.

Other Machine Specifications common to both categories:

- The machine should be controlled by a wireless remote control mechanism or wired one throughout the war.
- 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.
- Only DC Motors can be used.

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.

Arena:

- Exact track will be opened on the event day, as it is subjected to change & will be informed to participants before commencement of the event.
- It is possible that the track may be on ground surface.

Rules & Regulations:

Game Rules:

- Maximum 8min. for each war.
- If the war does not end in 8min. 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 then that team will be disqualified.
- Burning type of instruments are not allowed.
- The top teams from qualifying rounds make it to the final round on basis of time trials.
- The machines are not allowed to leave any loose parts on any part of the arena.
- One operator will operate only machine in the event.
- Judges decision shall be treated as final and binding on all.

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 teams must not damage the opponent's machine in any way. Judges reserve the right to disqualify any team indulged in misbehavior.
- The name of your machine must be prominently displayed on the machine.

Important Notes:-

1. The arena may contain any mechanical arrangement which will start working at half time i.e. after completion of 4 min. of the war like rotor, blades, holes, etc.
2. The teams can use only mechanical systems as their war mechanisms. The machine with hydraulics, pneumatics, fire, electromagnets, any liquid fluids, etc are not permitted to participate and will be disqualified.
3. The arena will be same for heavy weight and light weight robo war.
4. The mechanical systems will not be started for light weight robo war.
5. The participants who have took part in robo race and take the same robo race machine to robo war will get Rs.50/- discount on robo war registration.

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.

Registration Fee:

- Limited Entries are available.
- Early Bird registration fee is Rs. 200 per student up 31st August 2010
- Regular Registration fee is Rs. 250 per student from 1st September to 15th September 2010.

Registration Procedure:

- Download registration form- at
<http://www.mit.asia/Technomillennium3.aspx#Downloadable>
- Print the form and fill the necessary information and take the bonafide certification from the head of your institute on the same filled hard copy registration form.
- You can use the single form for the each team. Write the name of all team members on the same registration form.
- There are two modes for paying registration fees. I) Cash and II) DD.
- If paying Cash, contact at our contact address and issue proper cash Receipt and confirm your registration by submitting filled registration form.
- If paying through a demand Draft (DD), issue a DD of amount equal to the registration fees needed for a team or individual from any nationalized bank in the favor of “**The Principal, MIT, Aurangabad**”, payable at **Maharashtra, Aurangabad**. Write your name & Name of competition on the back of DD.
- Make the photocopy of DD and Filled registration form and keep this set for your reference. Send both the DD and Filled registration form (Both original) to the following contact address- (**Convener, Technomillennium 2010, MIT, Beed By Pass, Satara Village Road, Aurangabad, Maharashtra, India - 431028**).



Robo Was is a combat robotics competition, in which robot 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.