



CLASH & CLATTER

AIM:

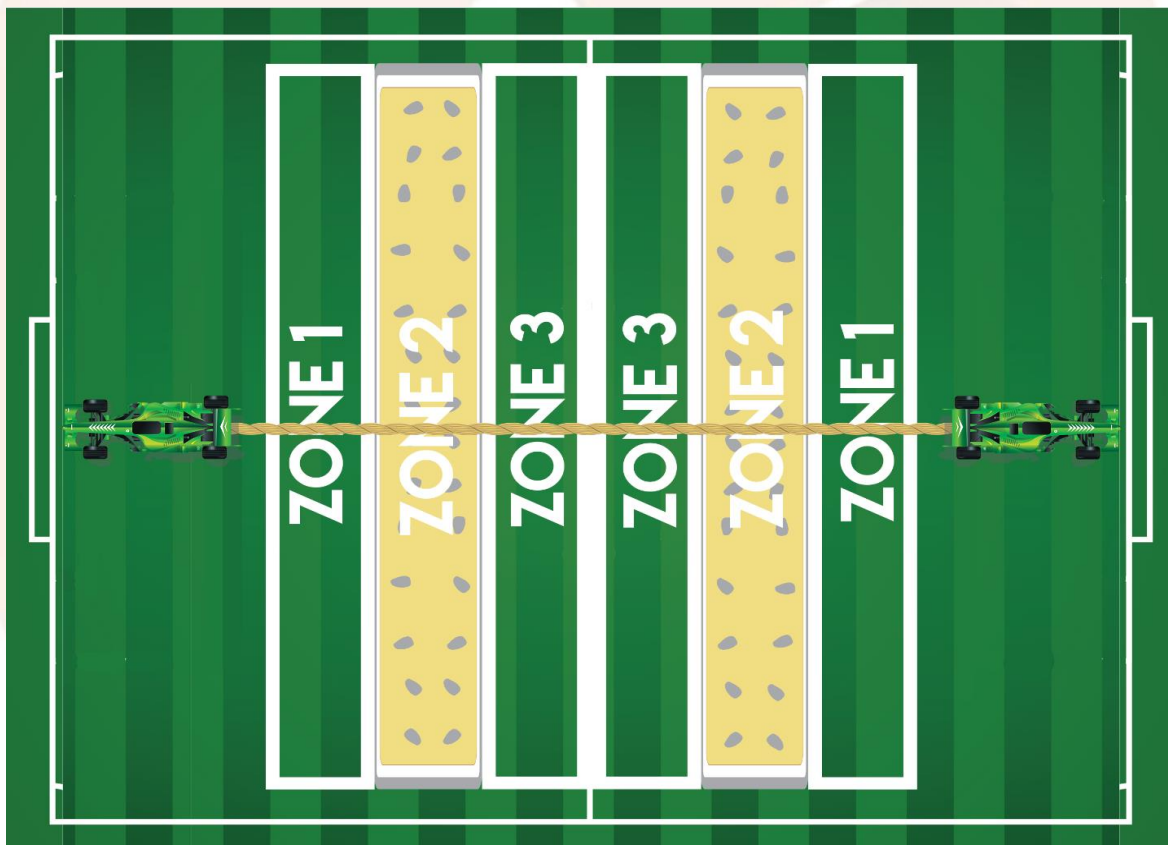
The game aims at clashing and clattering of two solid bots connected by rope such that they try to pull each other in the famous game 'TUG of WAR'. The bot wins if it drags the other bot across the center line.

ROUND 1

ARENA:

Note: The actual arena may slightly vary in lieu of practical issues

1. It will be an 8ft*10ft arena divided into 3 zones.
2. Zone 2 has a hurdle of few stones and pebbles.
3. Bots are tied head to head via a rope.
4. The Sample arena is displayed below. Kindly refer it for details.





GAMEPLAY:

The game starts with two bots tied head to head with a rope. The bots need to pull each other and drag the opponent bot to their respective side.

1. It will be an elimination round and one team from each round will be eliminated.
2. There will be obstacles (sand & pebbles) in zone 2 of the arena.
3. Bots need to pull the opponent bot into their zone (after the opponent bot crosses the centre line) to finish the game.
4. Maximum time of 3 minutes will be given in total for the game to finish.
5. Teams qualifying after the first round will compete in second round.
6. After 3 minutes, if no bot is able to drag the bot into their zone, bots will be given points as per the position of opponent bot in the arena.
7. Teams winning in the prelims will get direct entry to Round 2.

MARKING SCHEME:

1. If a bot successfully pulls the opponent bot towards its side after passing all the hurdles, the team **gains 50 points** & is declared as the winner.
2. At the end of battle, if none of the bot manages to pull the other one to their side, bots will be awarded points on the basis of position of the opponent bot, i.e. how close they were able to drag the opponent bot towards their side.
 - If Bot1 is in Zone 1 – Bot2 will get 5 points
 - If Bot1 crosses Zone 1 & is in Zone 2 – Bot2 will get 15 points
 - If Bot1 crosses Zone 2 & is in Zone 3 – Bot2 will get 30 points
3. In case of a tie, time taken by a bot to pull the opponent bot in the zone (at the end of battle) will decide the winner of the match.
4. In case of disfiguring of an attachment or bad functionality of bot during the battle, 10 points will be deducted from the defaulter bot.
5. In case the rope connecting two bots is loosened or disconnected, the rope will be tied again & match will start from the previously crossed checkpoint. Time will be stopped for the duration for which rope is tied again. Time will resume again after the rope is tied.

The **winner of the battle** will be the one who has **maximum points earned** or **pulled the opponent bot towards its side**.

BOT SPECIFICATIONS:

1. Bot can be wired or wireless.
2. Maximum allowed weight of the bot is **3 Kg**.
3. Bots should have on-board power supply.
4. The bot should fit in a box of dimensions 300mm X 250mm X 250mm. (L X B X H).
5. The potential difference between any two points on the bot should not exceed 24 volt
6. In case of wired bots, length of wires should not be less than 3 meters.



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7. The bot cannot be constructed using readymade Lego kits or any readymade mechanism. But you can make use of readymade gear assemblies and readymade wireless modules if required.
8. The robots shall be inspected before the event. Failing the inspection shall lead to disqualification.
9. Pneumatic/Hydraulic/Cutter/Projectile/Entanglement etc. mechanisms are NOT allowed.
10. Damaging the arena in any way will lead to disqualification.
11. There **must** a provision to **tie a rope at the head of the bot**. You are not allowed to wound the rope around or over the bot. The rope can **only be tied at the head** of the bot.
12. All the **attachments** (for tying of the ropes, for increasing the weight, for shifting of CG, CM) should be fasten(bolted, screwed etc) or **riveted/welded/perfectly glued**. In case attachment is not permanent or dismantles during the battle, you will be given only one chance to re-fix it and resume the battle, but with a penalty same as that of losing the rope.

ELIGIBILITY:

Students participating must have their valid college ID. In case they don't have their college ID then they would be disqualified.

RULES AND REGULATIONS:

1. Each **team** can have a maximum of 4 participants.
2. A team may consist of students from different colleges with valid identity cards (college ID).
3. One person cannot be part of two teams.
4. During the battle, contestants are not allowed to touch their bots.
5. Only **one member** will be allowed to **control** the bot.
6. In case the bot stops working during the battle, only one chance will be given to the team to fix the issue for a time of **one minute**. Battle time will be stopped during this and will resume after 1 minute automatically.
7. If bot fails again, time will not be stopped, however, the team can fix their bot. Time taken to fix the bot will be added to the time of the bot & team will be disqualified if it takes more than 2 minutes to fix the bot.
8. Wire should remain slack at all times. In case the wire is not slack, warning will be given for the first time & thereafter 5 point will be deducted every time.
9. The event may be recorded by an overhead camera provided by the organizers.
10. No damage should be made by a bot to the arena, to obstacles in arena or to other team's bots during the match in any manner.
11. The organizers reserve the right to change the rules as they seem fit.
12. When a team is called for match, they must report within five minutes.
13. Judge's decision will be final.



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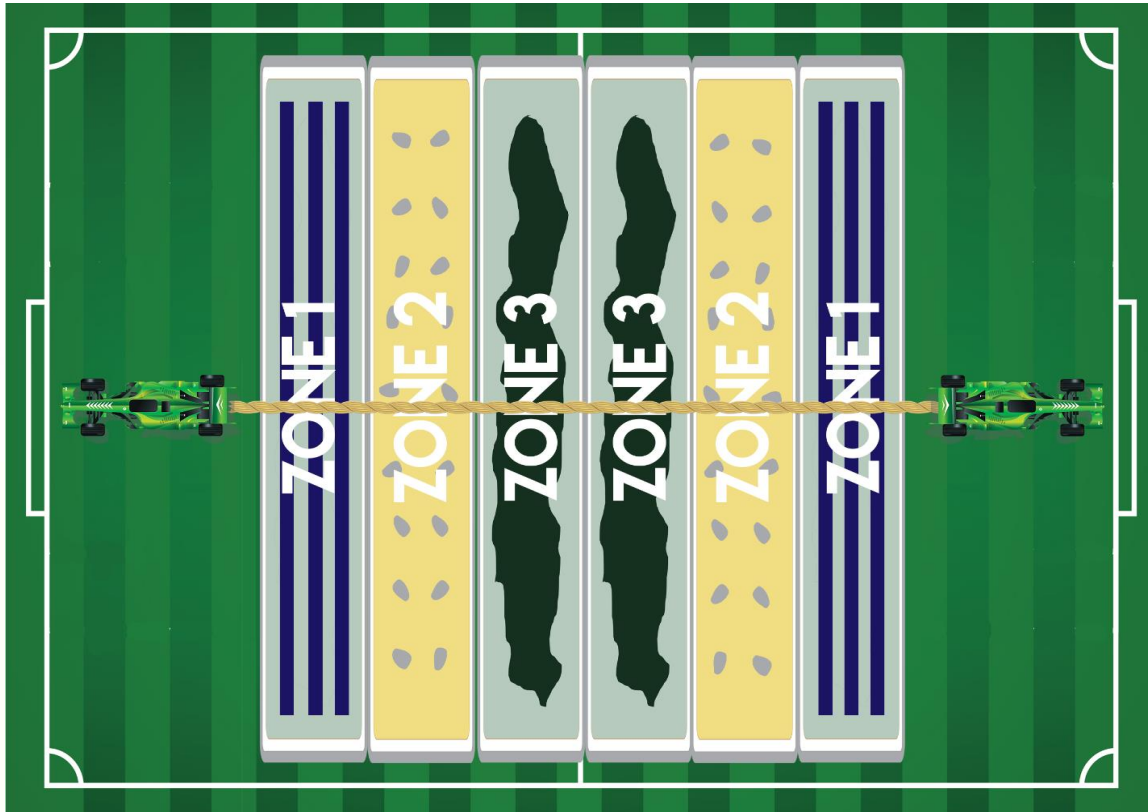


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ROUND 2

ARENA:



GAMEPLAY:

The game starts with two bots tied head to head with a rope. The bots need to pull each other and drag the opponent bot to their respective side.


OBSTACLES:

Zone 1 – Speed breakers made by semi – cylindrical pipes

Zone 2 – Sand & pebbles

Zone 3 – Grease or oily surface

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1. It will be a timed round where the teams with maximum score in the least time will be declared winner out of all the teams.
2. Time taken by a bot to pull the opponent bot after each & every checkpoint will be noted for final result.
3. Bots need to pull the opponent bot into their zone (after the opponent bot crosses the centre line) to finish the game.
4. Maximum time of 5 minutes will be given in total for the game to finish.
5. After 5 minutes, if no bot is able to drag the bot into their zone, bots will be given points as per the position of opponent bot in the arena.

MARKING SCHEME:


1. If a bot successfully pulls the opponent bot towards its side after passing all the hurdles, the team **gains 100 points** & is declared as the winner.
2. At the end of battle, if none of the bot manages to pull the other one to their side, bots will be awarded points on the basis of position of the opponent bot, i.e. how close they were able to drag the opponent bot towards their side.
3. If Bot1 is in Zone 1 – Bot2 will get 15 points
4. If Bot1 crosses Zone 1 and is in Zone 2 – Bot2 will get 30 points
5. If Bot1 crosses Zone 2 & is in Zone 3 – Bot2 will get 50 points
6. In case of disfiguring of an attachment or bad functionality of bot during the battle, 10 points will be deducted from the defaulter bot.
7. In case the rope connecting two bots is loosened or disconnected, the rope will be tied again & match will start from the previously crossed checkpoint. Time will be stopped for the duration for which rope is tied again. Time will resume again after the rope is tied.

The **winner of the battle** will be the one who has **maximum points earned** or pulled the opponent bot towards its side in the least possible time.

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