

CANNON SHOT

...*THE BATTLE OF TANKS*

PROBLEM STATEMENT:

Make a manually controlled machine, which can give the projectile motion to the ball using any type of mechanism.

MACHINE SPECIFICATIONS:

1. Base of machine should fit into a box of dimension $1\text{m} \times 1\text{m} \times 1.2\text{m}$ (L X B X H) at the time of start. The extensions used to control the machine are excluded while measuring the machine dimensions.
2. For pneumatic mechanism pressure limit is up to 3 bars.
3. Balls will be provided by the organising management.
4. Use of batteries or any other source of stored energy is allowed.
5. Uses of any type of electrical motors are allowed.
6. You can also use the mechanism with rubber bands.
7. You can use the spring mechanism also.
8. Use of **readymade assembly is not allowed.**

MATERIALS ALLOWED:

Pipes (or any other cylinder-piston arrangement), tubes, wood, metallic or fibre springs, rubber bands, plastic, ready-made tyres for moving the mechanism from one place to another place.

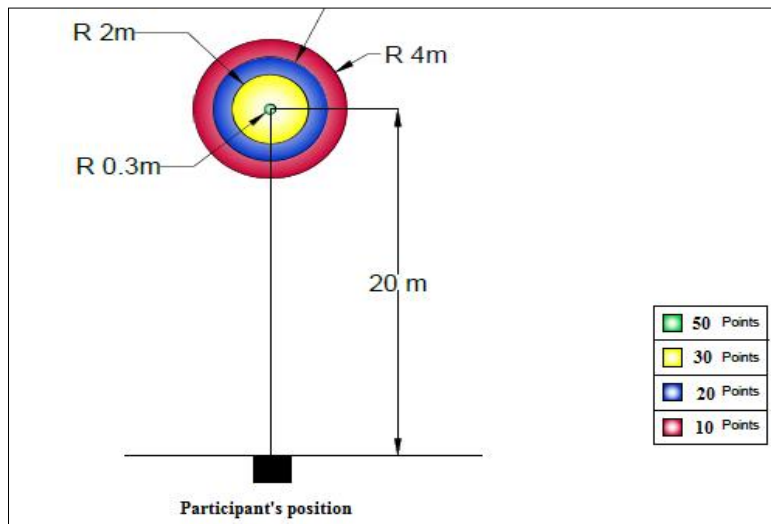
COMPETITION RULES:

1. Machine should give the minimum range of 10 m to the ball.
2. Only balls will be provided by organisers having Max diameter of 10 cm and minimum diameter of 7cm.
3. For each team max 3 min. will be provided for three shots, if time will exceed then it shall be negative point for that team.
4. **Each and every team should possess their own instrument which will you require. (There may be chances that 2 or more teams have to perform at the same time so there will be less chances of exchange of instrument among the participants.)**
5. Two rounds will be conducted.
6. For controlling of machine only hand operation is allowed.
7. Electrical supply is not provided. Participant must carry their own electrical connections.

- **ROUND 1-**

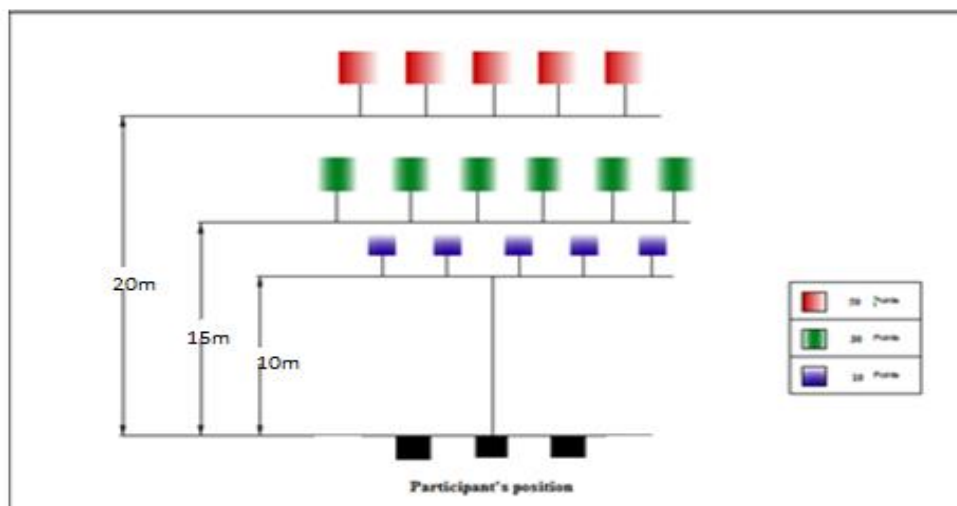
1. In 1st round you have to reach the ball into the specified circle as shown below.

2. Each circle has the different game points.
3. If the ball reaches exactly at the centre circle then participant will get the bonus point.
4. Each participating team will get 3 trials.
5. Total game points of 3 trials are calculated.
6. The participants from 1st round will be shortlisted for 2nd round.



• **ROUND 2-**

1. In this round 3 teams will hit the target at the same time.
2. Each team provided with around 5 min and 3 min.
3. There will be **two sub rounds** of 5 min and 3 min for round 2 for each team.
4. Game points will depend on the targets which are shown below the arrangement. The arrangement will be similar as shown in picture but it can be change depending upon the decision of organizing committee.
5. Those participants which get maximum points in this round, they will awarded as winner and runner up.



GENERAL RULES:

1. The teams must adhere to the spirit of healthy competition.
2. Any team that is not ready at the time specified will be disqualified from the competition automatically.
3. The organizers reserve all rights to change any of the above rules as they deem fit. Change in rules, if any will be highlighted on the website.
4. In case of any discrepancy decision of the judges shall be treated as final and binding on all.
5. **Change in rules, if any will be highlighted on the website.**

WINNING CRITERIA:

- The game points of 2nd round and the 50% game points of 1st round will be considered for the final calculation.
- In case of a tie, then there will be 3rd round for teams and winner will be based on scores of 3rd round only. Scores of 1st round and 2nd round will not be considered in that case.

CERTIFICATE POLICY:

- All the participants will get the certificate of participation except winner up and runner up.

TEAM DETAILS:

- A team can have a maximum of 3 members.
- Students from different educational institutes are allowed to make a team.

ENTRY FEES:

Rs. 200 per team

For further information/ Queries,

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