



BOFORS

"Big bang boom!!"

INTRODUCTION:

Calcium carbide (mixture 160, 16x80) mixes with water in the chamber of the cannon, producing acetylene gas. A few seconds after the gas forms, a spark is ignited which results in a loud "bang" or "boom". A key safety feature is that there is no recoil or kick when the cannon is fired. In fact, "glass" cannons were used as a company demo in order to show the chemical reaction taking place as well as the inherent safe quality of the product. "Bangsite" is the name given to the calcium carbide mixture







PROBLEM STATEMENT:

Participants have to design a canon which propellers by use of calcium carbide and water.

REACTION:

$$CaC_2 + H_2O = C_2H_2 + Ca(OH)_2$$

$$C_2H_2 + O_2 = CO_2 + H_2O$$

STEPS TO MAKE BOFORSE

STEPS:

Step 1: Take a pipe (Make sure that diameter of pipe is equal to the diameter of the Tennis ball)



Step 2: Cover or weld the pipe at one end.

Step 3: Make a small hole (maximum3 to 5mm diameter) on the pipe at some distance from the back side (covered or welded site).

Step 4: Make a stand to give desire angle while shooting the canon.





Note: Maximum time required to complete the model is: 30 to 40 minutes.

RULES AND REGULATIONS:

- Plastic ball propelled by cannon should reach specified range.
- Use appropriate amount of calcium carbide otherwise in case of any accident (bursting of pipe etc.) **team will be disqualified.**
- Participant will assemble their cannon on event site only.
- In case of pipe bust team will be disqualified on the spot.

JUDGING CRITERIA:

- Shot will be tested for maximum range.
- 3 trials will be given out of which the total of best 2 shots will be considered as the final score.
- In case of any discrepancy the decision of jury will be considered as final.
- Shots (plastic balls) will be provided by BOFORS team, use of unfair means will lead to immediate disqualification from the event.

TEAM SIZE:

Maximum 3 participants can form a team.





ELIGIBILITY CRITERIA:

- All students with a valid Registration Card of DEXTRA 2014 along with their respective educational institutes' ID Cards are eligible to participate.
- Non-JUET participants must possess an Accommodation Confirmation Letter (ACL) issued by the organizing body at the time of registration. **Registration Card will not be issued without ACL.**

EVENT MANAGERS:

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