

Bomb Squad

Save your comrades

Problem Statement: Teams have to design a manual / semi-autonomous robot with a hook and hand mechanism that can defuse a dummy bomb by plucking out the given colored wire.

GAME PLAY:

- The knock out round between the teams is a time based round.
- Both the teams start at the START point at the same time. Passing the hurdles, defusing the bombs and completion the tasks given are the criteria to win.
- The dimension of the entire area is (800x400) cm.

- The arena is divided into two alternate portions having same tasks; the bet is time and perfection.
- Teams will be competing two at a time having BLUE/RED tag on them.
- Tasks consists of defusing the bombs, defusing landmines clear all obstacles and bringing its winning flag back to its starting position which is kept in opponents arena.
- Path for departing to opponent's arena should be selected in such a way that they should meet each other.
- For defusing the bomb and landmines bot needs to pluck out the certain wire out of bomb.
- Bot must be capable of passing through rolling bridge and see saw bridge.
- Each obstacle/bomb/ bridge, when skipped manually will cost team some points. And completion of the task will offer team certain points.
- The winner will be decided as per the final scores.

BOT SPECIFICATION:

1. During the whole event the bot must fit within a cube of edge 30cm.
2. The Robot must be stable and able to move.

A Bot not fulfilling these criteria will be disqualified.

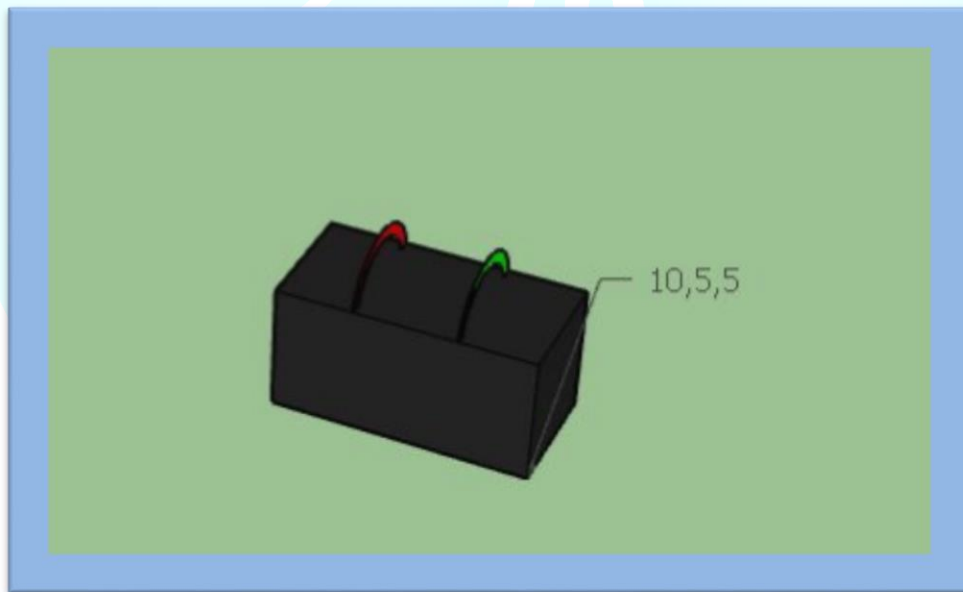
3. The wire used to power/feed the bot should remain slack at all times.

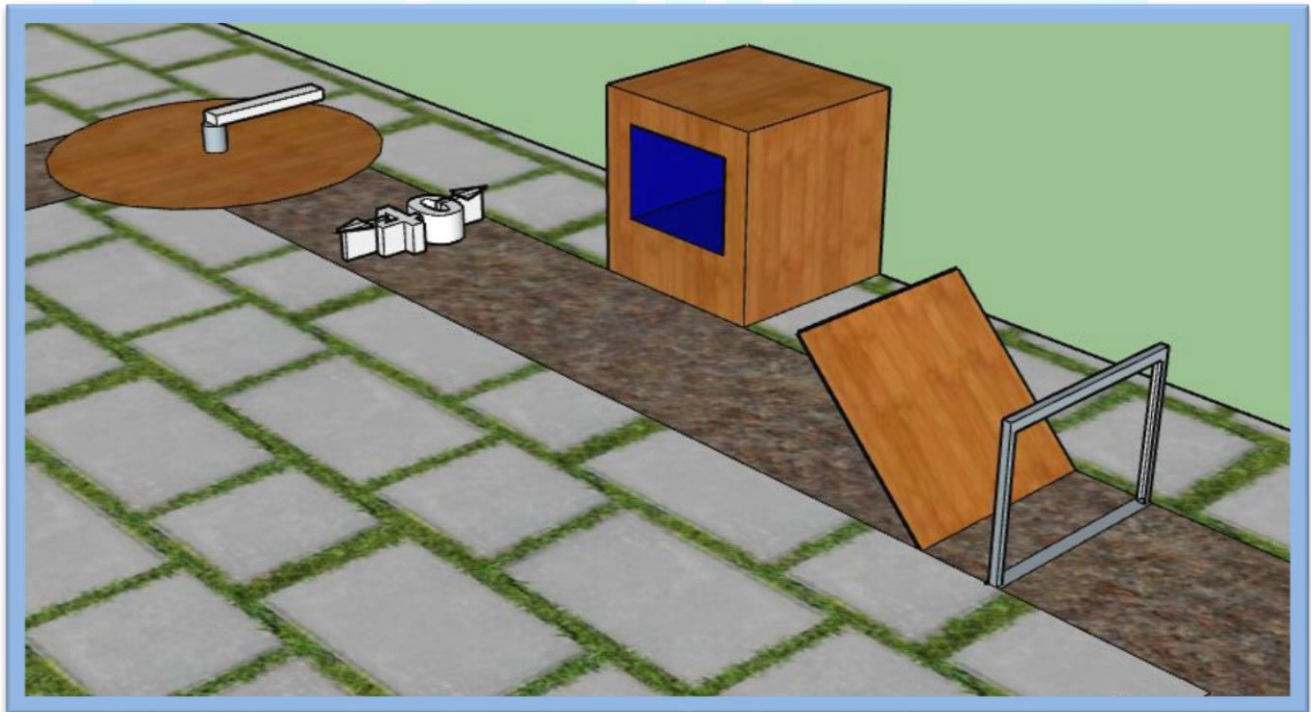
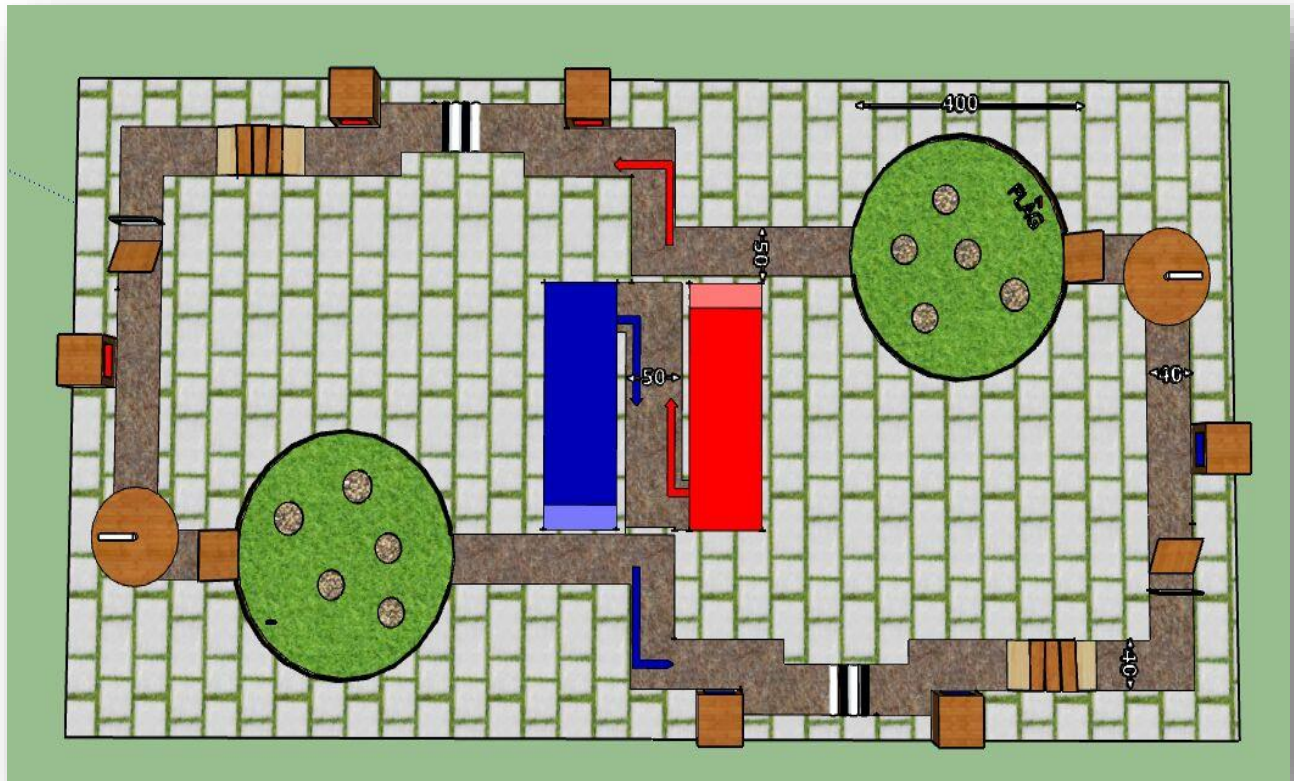
4. Maximum allowed potential difference between any two points of robot should not exceed 18V.

A source of 220V only will be supplied in the arena.

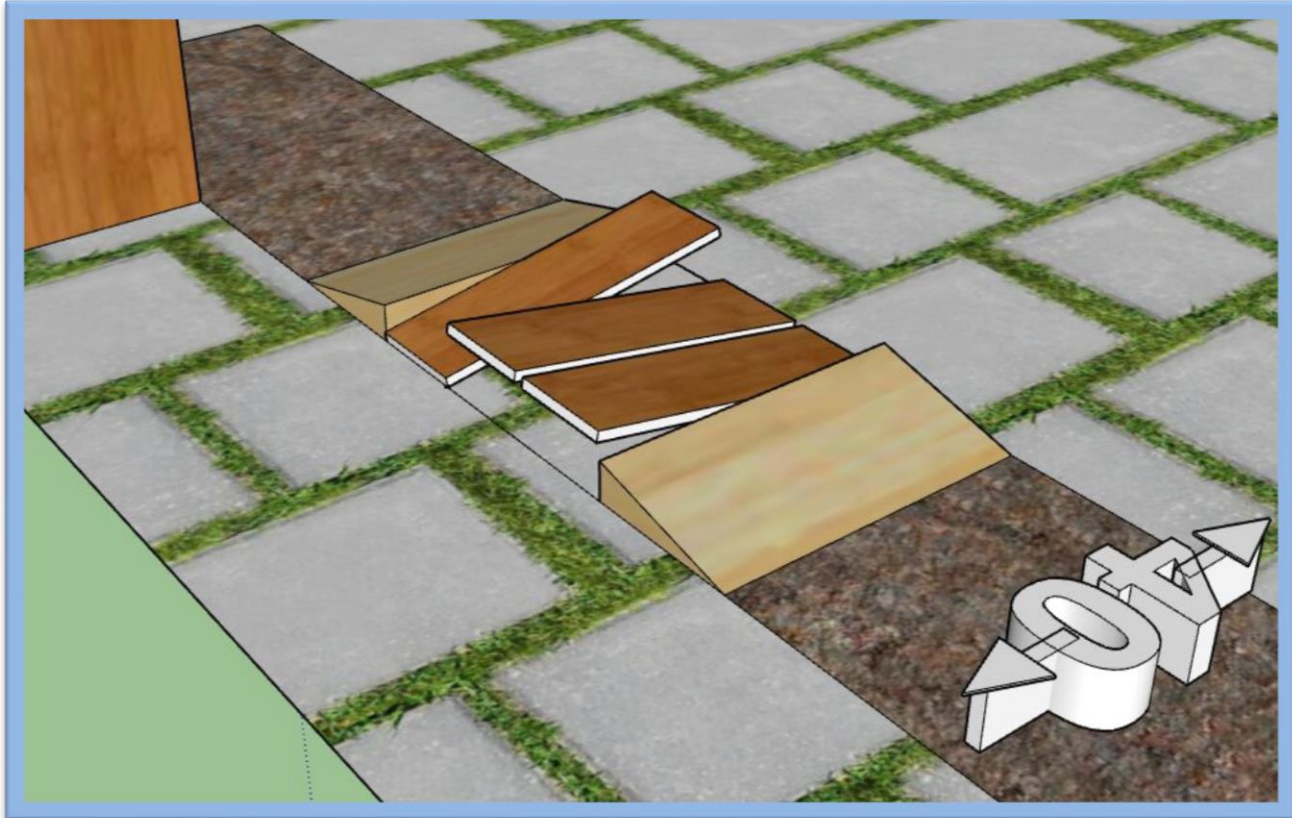
5. There must be a hand mechanism (grabbing and lifting) and a hook in a bot.
6. A hand must be able to pick the object of size 10cmx5cmx5cm

ARENA:









GENERAL RULES:

- Each team can have a maximum of 5 participants.
- Only 2 members per team can step inside arena.
- Certificates of Excellence and Prize Money will be awarded to the top three teams, certificates of participation will be provided to all participating teams.
- No damage should be made by a robot to the arena or to other team's bots during the game in any manner.
- Bots should not be disassembled until the results are declared.

- The organizers reserve the right to change the rules and/or arena as they deem fit.

SCORING SYSTEM:

The rounds between teams will be time based, the team which score more points, wins the race.

Points distribution criteria will be given to you before the events start.

Certification policy and Prizes:

- Certificates of excellence will be provided for winner and runner up.
- Certificate of appreciation will be provided for 2nd runner-up.
- All teams qualified for second round will be given participation certificates.

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****There may be small changes in area design. In case of any dispute or argument the decision of the organizers will be final.***