

# XCELARADO

## Introduction

DUEL, A formal ceremony preliminary to the reconciliation of two enemies. Your vision is blurry, head running, shirt drenched in sweat. The sun fills the sky with red and yellow colours as it burns the head. No one remembers how it started but it's definitely not finished, not yet. As the countdown ends, one above the rest will take over the spoils. The viperous concrete track is the way to satiate the devil's appetite in this malevolent land. Calling out to everyone who holds a grudge against the world, XCELARADO 2013: Your chance to get even with the world.

Do u have it in you to make a machine that would take you to the pinnacle of glory, and leave everyone awe-struck! Are you game to witness the thrill, the euphoria and the celebration of an amazing race! Then this is the place you should be...

## Task

Make a wired or wireless remote controlled machine, which can race against other opponents on an off-road dirt track with many obstacles.

## Track Specifications:

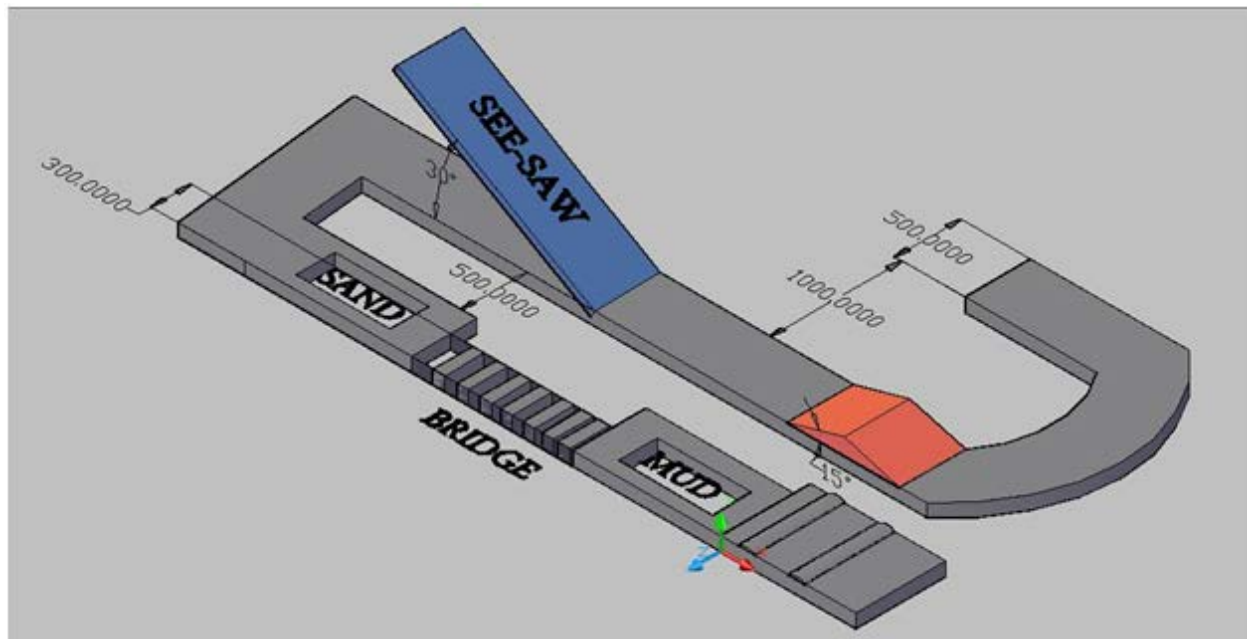
The track will be an all-terrain track with sharp turns and big jumps. The car should be able to cross bumps, rough patches on the track and outdo the opponents time while maintaining its stability and not compromising on its pace.

- The width of the track will be around 2 feet for most of the part.
- Despite organizers' efforts to keep the track quality intact, the track is subjected to undergo wear and tear as machines run over it. The machine is expected to be able to perform on such a weakened track.
- Track will consist of following obstacles.
  - Small bumps above ground
  - Ramps
  - Bridges
  - Greased surfaces
  - Pit holes

## Bot Specifications

- The robot should not exceed the dimensions of **300mm x 200mm x 200mm** (l\*b\*h) at any point of time during the event.
- Maximum voltage difference between any two points at any point of time on the track should not be more than 24V.
- Robot can be either **radio controlled (wireless) or wired**.
- No readymade assemblies/lego kits are allowed.
- Bot may have an on-board or off board power supply.

## Arena



## Competition Rules

- The first round will be a Time-Trial round.
- Each bot has to complete a portion of the main track in minimum possible time.
- Top teams from qualifying round will make it to the second round.
- The track will have check points at regular intervals.
- If a machine tumbles, or halts, or goes off the arena at any point on the track, only one of the participants is allowed to lift it up and place it at the nearest checkpoint behind that point.
- The vehicles have to be fully controlled using only the remote control unless there is a need to touch the vehicle as stated above.
- There will be a time penalty every time the machine requires lifting by the team member.

- Any vehicle is not allowed to leave any disintegrated part on the race track amidst of the race. In case this happens, the team will be disqualified.
- Points will be awarded on the basis of time taken by a team to complete the race, less is the time taken more will be the points awarded.
- Points will also be awarded for crossing the checkpoints, the more checkpoints you cross more will be the points awarded.
- Team with maximum number of points will be declared winner.

## General Rules

- Each team can consist of a maximum of 4 members.
- Each team should have unique participants i.e. no two teams can have even a single participant common.
- The team members can be from different institutes or colleges.
- All participants should carry a valid identity card of their respective educational Institutes during the event.
- The participants are required to be present on arena at least 15 minutes before their turn.
- The right spirit of participation is expected from the participants.
- The decision of the event organizers will be final and binding.
- The participants will be provided with 24 Volts D.C. supply. In case the robot requires a power supply other than the one mentioned above, the participants will have to arrange for it themselves.
- During the course of run, pulling the wire to aid the robot in traversing is not allowed.
- Any damage to the arena by the bot will lead to its immediate disqualification.

## **Certificate & Prize policy**

Certificate of Excellence and prize money will be given to top 2 teams. Certificates of Participation will be given to all the teams which qualify 1<sup>st</sup> round. The teams which get disqualified due to disobeying any of the competition rules will not be considered for the certificate.

## **Event Coordinator**

**Tanmay Dhyani (+91-9999508805)**

**Tanuj Goswami ( +91-9654319969)**