CLIMBAX
Climb to Conquer

Introduction

Currently, there is a strong demand for mobile stair-climbing robots to aid people who have difficulty walking, search and rescue operations, or urban reconnaissance. Here, teams have to brainstorm on such robot designs and construct a prototype of a stair-climbing robot that can climb stairs of multiple sizes.

Prize Money

1st Prize: 5,000
2nd Prize: 4,000
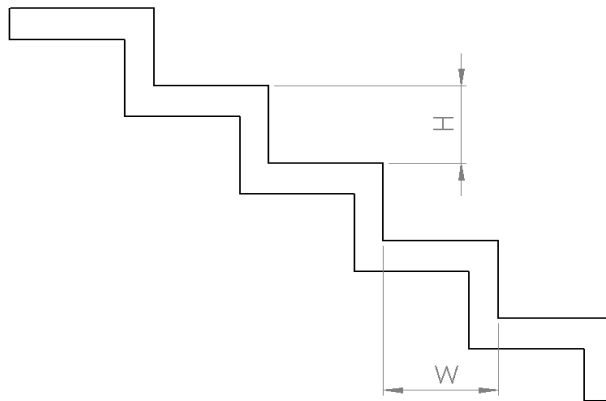3rd Prize: 3,000

Problem Statement

Round 1

➢ Proof of Concept a video that demonstrates robot performing tasks like climbing stairs or uneven slopes.
➢ Participated teams will have to submit a video of the working model.
➢ Video must be in mp4 format.
➢ Duration must not be more than 5 minutes.
➢ Ensure that the bot is visible properly in the video, and the same bot has to be used in the Final Round.

Round 2:

➢ It will be held in offline mode, where teams have to showcase the actual capabilities of bot.
➢ Bots will be provided with four sets of stairs, made from the same material having dissimilar dimensions, with five steps each.
➢ Bots will be judged based on the respective time taken to climb a given set of stairs.

Stairs' Specifications

➢ No. of steps in each Set: 5
➢ Stair Dimensions:
   a) Width (W): 45 cm
   b) Height (H) range: 10-20 cm

Side View

Bot Specifications

➢ Max weight of Bot: 4kg
➢ Max Wheel Diameter (if used): 10 cm
➢ Length of bot **< 50 cm**

Game Rules

➢ No team member is allowed to touch the bot during the run.
➢ In case the bot rolls off from stairs, **within 20 sec** it has to attain original position, afterward 1 minus points for each second taken.

General Rules

➢ Bring your college/student ID-Card at the time of competition.
➢ Decisions taken by the judges will be final.
➢ Any misbehaviour will lead you to disqualification from the competition.
➢ If less than 30 teams will be registered, then only first prize will be given and if less than 50 teams will register, only two prizes will be given.
➢ Any editing practice in the video that appears to add fake features that are not part of the bot or background may affect your overall score.

Team Specifications

➢ Team should be of 2 to 4 members.
➢ Members of a team may be from the same college/school or different (K12/UG/PG).
➢ Any number of teams can participate from one college/school.
➢ Professionals are not allowed. Only students can participate.
➢ Participants are required to bring their school/college ID cards.

- Once registered, the same team cannot register with another name or for another model other than previously registered one.
- Every team must have a unique name that should not be offensive conflicting or inappropriate.
- Organizers have the right to reject entries for any inappropriate team name.
- Organizers must be notified if a team's name has been changed.
- Team Representative: Each team must specify their Team Representative (Leader) at the time of registration on the website. All important communications between the organizer and the registered teams will be done through their Team Representative. The Team representatives must submit valid contact details (phone no., email id, etc.) at the time of registration.
- If teams don't show up on allotted slot, they will be disqualified.

Event Timeline

Round 1 (Virtual Mode)	Proof of Concept submission deadline	10th April 2022
Round 2	Releasing list of shortlisted candidates	11th April 2022
	On site event	14th April 2022

Registration Details

Registration window will open soon!