



RULEBOOK

About:

Rostruct is a robotics-based competition that will be conducted in two stages where participants will get an opportunity to visualize real-life problems and forge their innovative solutions to simulate and build hardware without any investment of money.

Conduction of Event:

- Participation:
 - Individual or in a team with a maximum of 2 members.
 - There is no participation fee.
- The event consists of two stages. Both the stages will be conducted online.
- Registration period: **20 October 2021 to 9 November 2021.**

Stage 1:

- Stage 1 is a simulation round, where participants can simulate either on the **CoppeliaSim(V-REP)** or **MATLAB-Simulink** platform. The links for tutorials for using both platforms are provided at the end of the rulebook.
- The problem statements for stage 1 will be shared via email to the registered participants on **10 November 2021** along with the judging criteria and other details(including the exact submission format).
- The submission of the simulation will be taken through the google form, whose link will be shared through the mail. Participants have to upload all their files on GitHub along with a **readme** file showing the details and a drive link for the video of the simulation.
NOTE: Any participant who submits a GitHub repo without a readme file will be disqualified.
- A total time period of **one week** will be given to the participants for submitting the simulation. **We would accept responses till 11:59 pm, 16 November 2021.**
(Note: No submission after the mentioned deadline will be considered).

Stage 2:

- Stage 2 is a hardware-based round where the participant has to actually build a physical robot.
- **Top 10** participants from stage 1 will be shortlisted for stage 2, the results of which will be shared via email by **20 November 2021.**
- The participants will be given a set of problem statements for stage 2 (which may be different from stage 1).

- The exact details of stage 2 (including the problem statements) will be announced later to the shortlisted participants via email on **20 November 2021**.
- All the shortlisted participants have to present their robots to us **online** and explain their solutions on **11 December 2021**. The presentations will be live judged on an online platform. The details of the judging criteria and the presentation guidelines will be shared later.
- The participants will therefore get a time period of **3 weeks** (20 Nov to 10 Dec) for building their robots.

Prize Policy:

- All the participants who submit the simulations will get a **certificate of participation** from Amalthea, IIT Gandhinagar.
- The top 10 participants in stage 1 will get an additional **certificate of competence** from Amalthea, IIT Gandhinagar.
- The shortlisted participants will be given a reimbursement of up to **INR 4000** for the parts they purchase for making the robot for **stage 2**.
- The prize distribution for the **top 3** participants in stage 2 is as follows:

First Prize:	INR 15,000
Second Prize:	INR 10,000
Third Prize:	INR 5,000

Rules and Regulations:

- **Plagiarism** is strictly not allowed and may lead to direct disqualification of the participant/team.
- **Multiple entries** are not allowed. In the case of **team participation**, only the **team leader** has to submit the files.
- The money will be reimbursed only if the participant/team has presented their model on the presentation day(11 Dec 2021).

Reference Learnings:

- Tutorial for CoppeliaSim: <https://www.coppeliarobotics.com/helpFiles/en/tutorials.htm>
- Tutorial for MATLAB-Simulink: <https://www.mathworks.com/solutions/robotics.html>

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