LINE FOLLOWER

Ro-Navigator — Autonomous Maze Racing

Official Rules & Regulations

Read carefully. All rules are binding and subject to coordinator decisions.

EVENT OVERVIEW

Ro-Navigator brings together top-notch line-following robots in a captivating competition. These autonomous machines showcase precision, speed, and strategic ability as they navigate complex mazes on a flex-sheet arena — racing towards victory through a white background with a black path featuring gaps.

BOT SPECIFICATIONS

SPECIFICATION	DETAIL
Dimensions	Max 20 cm × 20 cm × 20 cm (Length × Width × Height)
Power Supply	On-board only; maximum 10–12 V
Control	Fully autonomous — no external control permitted during the event
Team Size	4–5 participants per team
Robots	One robot per team; same robot cannot be used by multiple teams

TRACK SPECIFICATIONS

- Arena surface: flex sheet with a white background.
- Path: 3 cm to 5 cm wide black line with gaps in between.
- Track may include: angles, curves, junctions, checkpoints, and circles.
- The final round may introduce additional challenges or track variations to test adaptability.

ROUND STRUCTURE

ROUND	FORMAT	OBJECTIVE
Preliminary	All teams run individually	Shortest time qualifies for finals
Final	Top teams head-to-head	Outperform opponents; extra challenges possible

PARTICIPATION & GAME RULES

- All robots must operate fully autonomously — no external control during the event.
- Each team is allowed one restart if the robot moves out of the arena.
- Touching the robot during its run incurs a 10-second time penalty.
- In case of a tie, the event heads will make the final decision.
- Team members must carry their college ID cards to confirm identity.
- No refund will be given in case of disqualification.
- Rules may be modified after the commencement of the event.

SCORING RULES

ACHIEVEMENT	REWARD
Crossing each checkpoint (LED blink confirmation)	Points awarded per checkpoint
Reaching the endpoint	Additional points
Stopping at endpoint for at least 5 seconds	Extra credit points
Successfully navigating through line gaps	Credit awarded
Fastest overall completion time	Determines final ranking

NOTE: Points are awarded for checkpoint detection only if the robot clearly indicates detection by blinking LED lights. The coordinator's decision is final in all matters. Carry your college ID card at all times during the event.