

PATH FOLLOWER

Event Overview:

The PATH FOLLOWER competition challenges teams to build an autonomous robot that can follow a visual line embedded on the floor. These robots must navigate a black line on a white background through a zig-zag path with multiple 90-degree turns, completing the course in the shortest time possible.

Team Specification:

- The team can have a minimum 2 members and maximum 4 members.

Event Structure:

- Teams must build an autonomous bot capable of following a black line on a contrasting surface. • The robot must follow the black line on a white background through a zig-zag path with several 90-degree turns.
- The robot that completes the path in the shortest time while accurately following the line from start to finish will win.

Bot Specifications:

- Maximum dimensions: 25 cm x 25 cm x 15 cm. Bots exceeding these dimensions will be disqualified.
- Minimum dimensions : 20cm x 18cm x 10cm.
- Only DC-powered components are allowed.
- An external power source of 220 Volts AC supply will be provided for charging purposes only.
- Teams can use readymade microcontrollers and sensors such as LDR or IR as required.
- Ready-made Lego kits or similar assemblies are prohibited.
- The width of the line to be followed will be 3 cm.

Round 1:

- The first task will test the bot's locomotion capabilities by having it follow a thick black line.
- The path will include curves, and the bot must reach the checkpoint.
- A maximum of 50 points can be scored in this round.
5 points will be deducted for each instance of human interference.
- Points will be inversely proportional to the time taken.

Round 2:

- The second round presents a more complex challenge with zig-zag and curved paths.
- Points will be awarded based on the same criteria as in Round 1.
- A maximum of 100 points can be scored in this round.

Tie-Breaker Rule:

In the event of a tie, the time taken to complete the course will be used to break the tie. If a tie persists, other quantitative methods will be applied.

Rules and Guidelines:

- Teams have to register by filling the google form for the event.
- Each team is allowed only one bot.
- Sharing or exchanging bots between teams is strictly prohibited.
- Physical contact with the bot during the event is not allowed without the organizer's permission and can result in penalties or disqualification.
- All participants must present their college ID card at the event.
- Participants must report 15 minutes before their allotted time slot. Late arrivals may be disqualified.
- Misbehaviour during the event may lead to disqualification.
- NEXUS is not responsible for late, lost, or misdirected entries.
- The organizing committee reserves the right to change rules as necessary. Registered participants will be notified of any changes via email, message, or WhatsApp.
- The jury's decision is final and binding.

Show your engineering prowess and take on the challenge of building the best linefollowing robot in PATH FOLLOWER!!!!

Contact for Queries:

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