

## Line Sequentes

The line sequentes will basically be an event for the beginners in which they will have to compete with their line following robots in the given arena and beat their respective opponents in terms of speed and time limits.

<b>Name of Event:</b>	Line Follower
<b>Robots per Event:</b>	One Or Knock Out
<b>Length of Event:</b>	3 Minutes
<b>Robot Weight Range:</b>	At Max 5Kg
<b>Robot Dimensions:</b>	25X25X25 cm
<b>Arena Specifications:</b>	As Per Center
<b>Robot Control:</b>	Autonomous
<b>Engineering Principles:</b>	Art, mechanical engineering, electrical engineering, computer science, etc
<b>Event Summary:</b>	This basic robot has to follow the black line on the background, taking the right turns. The follower has to complete the race without losing the line. Each team gets one chance, and the team which finishes the race accurately in the least time wins.

## OBJECTIVE

This basic robot has to follow the black line on the background, taking the right turns. The follower has to complete the race without losing the line. Each team gets one chance, and the team which finishes the race accurately in the least time wins.

## SPECIFICATIONS

1. The path to be traversed will be black line on white surface. The width of the black line will be 1/2 - 1 ".The black color may not be completely uniform and there might be slight variation in color.
2. The arena may vary from Zonal Center to Center.
3. Only at max 90 degree turns will be present.
4. There will be no discontinuities and no crossovers in the track.
5. The end of the line will be a black rectangular area indicating the end of the track.

## RULES AND GUIDELINES

1. Only one robot per team is allowed.
2. Max no of people per team is 5.
3. The robots should be within 25cm \* 25cm \* 25cm
4. Robots must be autonomous. Data links to off-board computers are allowed, but no wetware (human)

operated remote controls will be permitted.

5. The robots must have an accessible on/off switch.

6. The power supply for the vehicle should be contained on-board, and should not exceed 15V between any two points in the circuit.

7. The time will be measured from the moment the robot crosses the starting line till it crosses the finish line. A robot is deemed to have crossed the finish line when the foremost wheel, track, or leg of the robot contacts or crosses over the line. A maximum of 3 minutes is allowed to complete the course; else this will lead to disqualification. Time shall be measured by an electronic gate system or by a judge with a stopwatch, based on the availability of equipment. In either case the recorded time shall be final.

8. A robot that wanders off of the arena surface will be disqualified. A robot shall be deemed to have left the arena when any wheel, leg, or track has moved completely off the arena surface.

9. If the robot loses the course line then it has to reacquire the line at the point at which the line was lost or an earlier traversed point. If the robot fails to do so it will be one chance to reattempt. The robot must start the course again from the beginning, and if it loses the line course on its second attempt it will be disqualified.

10. The decisions of all officials regarding these rules and the conduct of the event shall be final.

## **JUDGING CRITERIA**

**The Robot which completes the path fully and in the best time wins.**