**Line stalker**

Black on white or white on black ? Let your bot figure it out.

## ****OBJECTIVE****

Build an autonomous bot that follows the white and black lines on the track crossing all the hurdles on its way and reaches the finish point in minimum time.

## ****BOT SPECIFICATIONS:****

 Bot size should not exceed 250mm X 250mm.

 Maximum allowed voltage is 24V.

 The bot must use only on-board power supply. No external off-board power supply is allowed.

 The bot must be fully autonomous and should contain all powering and motoring mechanisms itself.

Use of ready made sensor board/microcontroller board is allowed.

## ARENA

 For qualifying round, complete track will be white in color with thickness of 30mm on black base and limited hurdles.

 The final round track will be a blend of obstacles like curves, sharp turns, a 25-degree slope, discontinuity in track (up to 5cm), change of track color (only once during a run; black track on white base), multiple branching of track at the end with only one branch leading to the finish.

 A snap of sample track showing all hurdles is shown here.

(Note: This is not the actual track and the order and shape of hurdles may change.)

## RULES

Event would be carried out in 2 rounds:-

Qualifying round

Final round

 Qualifying round will be of 5 minutes with limited hurdles.

 Selected top teams will compete in final round .Final round will be of 7 minutes with all the hurdles mentioned.

 Before the match, each team will be given 10 minute for calibration on track.

 The team to reach finish-point in lowest time wins.

There will be various check-points in both the rounds.

 In case the bot is stuck at some point, a restart will be allowed only twice with a penalty of 30 seconds. The bot will have to start from the last crossed checkpoint but the clock will not be restarted.

 The time measured by the organizers will be final and used for scoring.

 In case of any dispute or ambiguity, event coordinators’ decision will be final.