



**ESTELLA 2.0**  
Inspiring Students, Creating Leaders



# SYNAPSE RUN



"Track the Line, Beat the Time"

**Day 1: Qualifiers**

**Day 2: Finals**

## Categories

Young Innovators (Grades 6-8)

Youth Innovators (Grades 9-12)

**The Millennium School  
Sector 119, Noida**

**201305**

<https://estellafest.in/>



# ESTELLA 2.0

Inspiring Students, Creating Leaders



## PROBLEM STATEMENT

Teams have to construct a fast-moving autonomous robot capable of following a black line over a white surface with precision, accuracy and speed.

## BOT SPECIFICATIONS

- The bot must be powered only by an electric motor mechanism. Fuel based cars are strictly prohibited
- Young Innovators are not allowed to use PID. Their arena will be made accordingly.
- Bots must be autonomous, no communication system is allowed.
- Maximum terminal voltage: **18 volts**.
- Lead-acid batteries are **not allowed**.
- The dimensions of the bot must be less than **25 cm** (length) × **25 cm** (breadth) × **20 cm** (height).
- The total weight of the bot must be less than **1.5 kg**.

**The Millennium School**  
**Sector 119, Noida**  
**201305**

<https://estellafest.in/>



# ESTELLA 2.0

Inspiring Students, Creating Leaders



## GUIDELINES & GAMEPLAY

- Each team may consist of a maximum of 4 participants.
- 1 or more teams may race together. This will be confirmed on day of event.
- If the bot gets stuck, the participants may restart from the previous checkpoint.
- Any robot not moving for 2 minutes will be disqualified.
- If any robot deviates from its specific path, they will have to start from the last checkpoint.
- Touching the bot is not allowed except for placing at the previous checkpoint.
- A team can start from previous checkpoint up to 2 times. After that their run will be marked incomplete.
- The number of runs a team gets will be notified on the day of event. The best run is counted.
- Teams with least time on day 1 will qualify for day 2

**The Millennium School**  
**Sector 119, Noida**  
**201305**

<https://estellafest.in/>



# ESTELLA 2.0

Inspiring Students, Creating Leaders



## ARENA

- The arena will be printed on a flex sheet. Other methods may also be used.
- The arena may consist of sharp turns, curves, intersections and zig-zag patterns.
- Line width is 25 mm.

**The Millennium School**  
**Sector 119, Noida**  
**201305**

<https://estellafest.in/>



# ESTELLA 2.0

Inspiring Students, Creating Leaders



## DECLARATION

The organizing team has made all efforts to make sure no changes are needed. However, modifications, clarifications or adjustments may be made due to unforeseen circumstances.

Participants are expected to extend full cooperation to the organizers and abide by all instructions communicated .

Any form of disorderly conduct, use of unfair means or intentional attempts to hamper the decorum and smooth conduct of the event shall result in immediate disqualification.

**Teacher In-Charge:** Mr. Manish Chandra Jha (99106 32320)

**Student In-Charge:** Varad Bansal (85128 43345)

**The Millennium School**  
**Sector 119, Noida**  
**201305**

<https://estellafest.in/>