



# ESTELLA

Inspiring Students, Creating Innovators



The Millennium  
School™

## SPEEDRACER SHOWDOWN



### PROBLEM STATEMENT

The teams have to construct fast-moving RC cars which are capable of driving on a circuit track. Alongside, they also have to practice their driving skills in order to complete the track efficiently.

### BOT SPECIFICATION

- The bot must have an electric motor mechanism only.
- Gasoline based cars are not allowed.
- The bot can use BLDC, DC or any other type of motor.
- Terminal potential must not exceed 24 volts.
- Lead acid battery is not allowed.
- The dimensions of the bot must be less than 30cm x 30cm x 30cm.

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- The Bot must weigh less than 2KG.
- The teams can use any wireless method for communication.

## GUIDELINES:-

- Each team should comprise of minimum 1 and maximum 3 participants.
- The teams that take the least time to complete the entire track will qualify for Day 2.
- If the bot gets stuck, the participants can resume from the previous checkpoint.
- Teams will be negatively marked if the car strays from the track more than 3 times.
- The arenas are not to scale and are provided to just give a rough idea about the race track to the participants.

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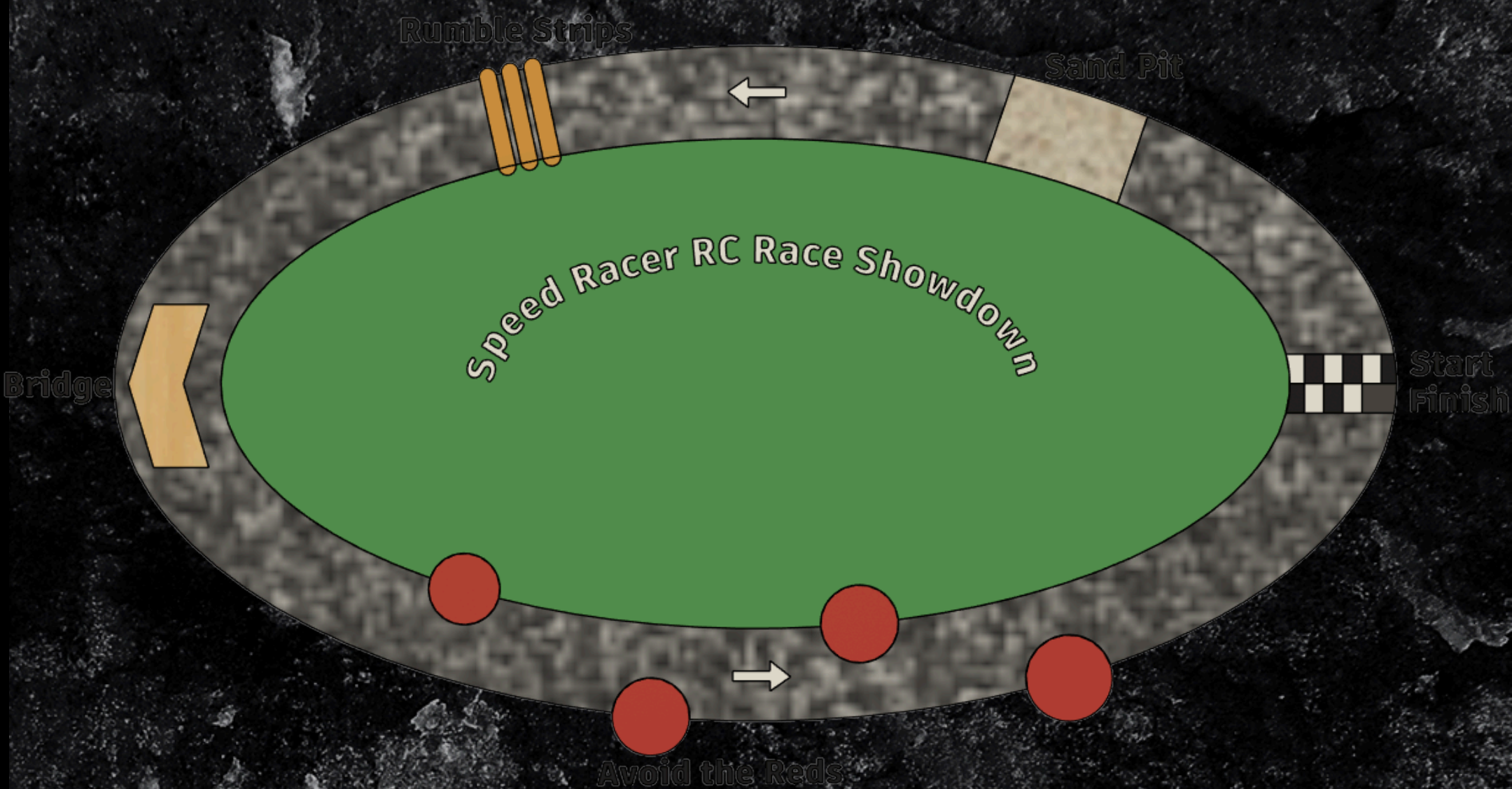
## ARENA: DAY 1



- This arena does not contain any hurdles.
- The checkered flag marks the commencement and finish points.
- The number of laps that the teams will have to take will be declared on the day of event.
- The teams will get 3 warnings for crossing the green zone, after which, a time penalty will take place, where, 3 seconds will be added to their total completion time for every strike.

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## ARENA: DAY 2



- The arena for Day 2 contains various hurdles including bumps, bridges, tires and sand pits.
- The checkered flag marks the commencement and finish points.
- The number of laps that the teams will have to complete will be declared on the day of event.
- The teams will get 3 warnings for crossing the green zone, after which, a time penalty will take place i.e. 3 seconds will be added to their total completion time for every strike.
- The top 3 fastest teams of Day 1 will be given the asset of the pole position on Day 2.