LINE FOLLOWER ROBOT CHALLENGE

Team Specifications:

1. Team registration fee 2000 BDT (four members) .
2. Team may form with members from different institutes.

Bot Specification:

- Maximum dimension: 30x30x30 c.cm.
- Maximum weight: 2kg.
- Maximum 24 volts on-board power supply
- Robot must be a ground wheeled autonomous vehicle
- If any bot damages the track in any way possible the team will be disqualified.
- Readymade circuit boards are allowed.
- Custom built sensor array will carry bonus marks.
- Any kind of communication module is not allowed.
- Teams are not allowed to use readymade Lego kits or any such assemblies (such as – hands).
- Team members are not allowed to direct the bot during run by touching the bot or holding anything in front of any sensor.
-Each team has to bring their own power supply for robot. No additional equipment/parts will be supplied in the competition

Track specification:

- The width of the track line is 3 cm ± 0.5 cm
- There will be no angle less than 30 degree
- The total size of the track is 16 ft×12 ft
-There will be one bridge on the track.
-The bridge will have 30cm width.
- Location of the bridge and details are shown in track pictures.
- Details dimension of the track are given in pictures of the track.

Rules:

1. Only one members will be allowed to enter the arena.
2. After the calibration once a robot starts its run, it cannot be touched. If it is picked up or touched it will be considered as a restart.
2. Points will only be awarded if the bot travels through the whole path of the checkpoint and cross the line.
3. Maximum number of restart: 5 restarts.

Scoring:

1. The track will be divided into several zones using checkpoints. Each checkpoint will have its own maximum amount of time and points to offer. The time taken by a robot to cross each checkpoint will be calculated and scoring will be done based on this.

2. Points calculating formula: **(Ttotal – Ttaken) * 100** (Time in minutes)

3. For example, suppose a checkpoint offers 200 point and maximum completing time 2minutes. If one bot takes 1min to cross the check point, it will be awarded (2-1)*100=100points.

4. For each restart 10seconds penalty will be added with the total time to cross the checkpoint.

5. If a robot takes more than the max time to cross a check point, the extra time will be carried on to the next checkpoint.

Detailed information about the maximum time, location of the checkpoints and allocated points for each checkpoint will be revealed on the day of the competition.

*The judges have the right to modify the rules (if necessary).
*Modifications will be notified to the contestants prior to the event.