ROBO GAME RULES

## CATEGORY I: GRADE 5,6&7

LINE FOLLOWER ROBOT

The Robot will have to follow the line carefully without any programming. Students belongs to this category are not allowed to use any kind of Microcontroller. They can use sensors and Driver IC. (Robot without any micro controller)

Rules:

1. The challenge of the competition is to make a robot that can move on black lines on a white background and reach the finish as soon as possible.
2. Size of the Robot should not be more than 20 cm X 20 cm X 20 cm
3. Team size can vary between 1 to 3 members per team. Only one team will be allowed from one school.
4. Every team will begin with a total of 100 points.
5. For every time that the robot goes out of the line there will be a deduction of 10 points.
6. Average time taken by the robot will be calculated by the organizers and 10 points will be awarded for every minute finished faster than the average. For every minute taken more than the average 10 points will be deducted.

   Points awarded = (Average Time - your time) x 10

7. We are attaching the sample track for the line follower. (Note: we do not guarantee any resemblance of this rack for this competition)
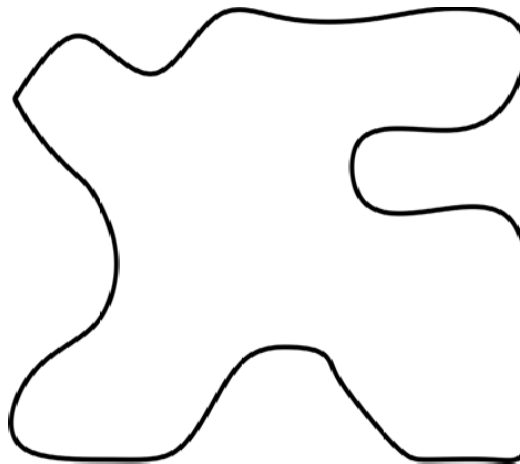
SORTING ROBOT

The game is designed to replicate the storage management system used in real time industries like Amazon, TATA, etc., These industrial Robots are either automated or manually operated in industries for organization of goods and materials. We would like to make the students to understand the utility of Robots in real time, thus the game.

SORTING ROBOT - ARENA
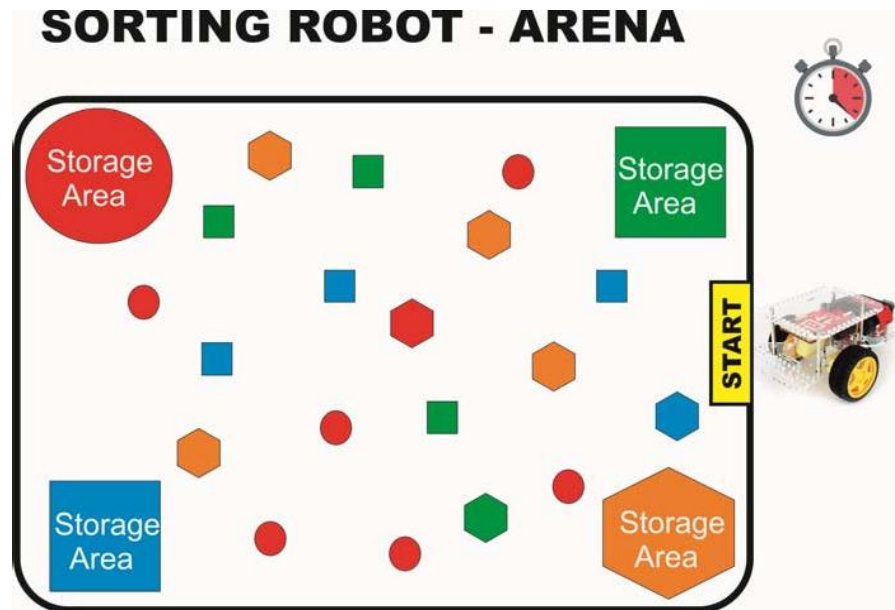
1. The challenge of the competition is to assemble certain objects in their respective colored storage area.
2. Size of the Robot should not be more than 20 cm X 20 cm X 20 cm
3. Team size can vary between 1 to 3 members per team. Only one team will be allowed from one school.
4. The Robot can be wired or wireless.
5. Using your Robot, you have to sort the models in their respective places.
6. The winners will be finalized based on the number of models they have sorted in the given time.
7. A robot may have to compete with the other robot at the same time. (One on One battle).

CATEGORY II: GRADE 8 & 9

LINE FOLLOWER ROBOT

The Robot will have to autonomously navigate the course (follow the line) and overcome certain challenges on the way using Arduino programming. The challenges are designed to carefully test each aspects of the Robot such as strength, speed, precision and logic. Let the game begin.

Rules:

1. The challenge of the competition is to make a robot that can move on black lines on a white background and reach the finishing line as soon as possible.
2. Size of the Robot should not be more than 20 cm X 20 cm X 20 cm. (No LEGO kits will be allowed).
3. Team size can vary between 1 to 3 members per team. Only one team will be allowed from one school.
4. Every team will begin with a total of 100 points.
5. For every time that the robot goes out of the line there will be a deduction of 10 points.
6. Check points will be present on certain lanes all over the route,
7. Robot should reach every checkpoint to finish the lap or considered disqualified.
8. Average time taken by the robot will be calculated by the organizers and 10 points will be awarded for every minute finished faster than the average. For every minute taken more than the average 10 points will be deducted.

Points awarded = (Average Time - your time) x 10

We are attaching the sample track for the line follower. (Note: we do not guarantee any resemblance of this rack for this competition
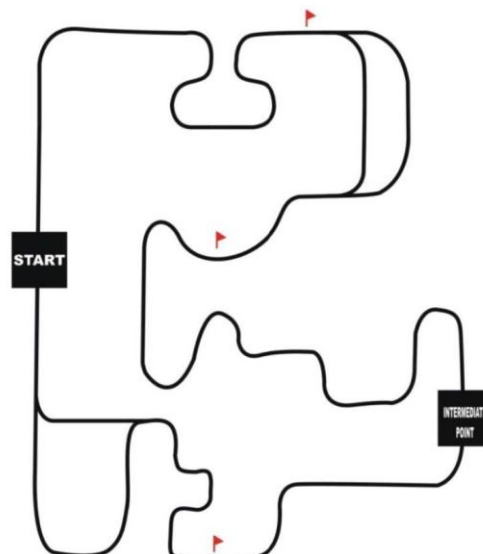
ROBOT RACE

Rules:

1. The Challenge of the competition is to overcome all the obstacles and rough surfaces on the road lane.
2. Size of the Robot should not be more than 20 cm X 20 cm X 20 cm
3. Team size can vary between 1 to 3 members per team. Only one team will be allowed from one school.
4. The Robot should be wireless and should be completely built by yourself.
5. A robot may have to compete with the other robot at the same time. (One on One battle).
6. The fastest Robot wins the Race.

We are attaching the sample track for RC Race. (Note: we do not guarantee any resemblance of this rack for this competition)

BALLOON BURSTING ROBOT

The Robot should have a balloon and a needle on its body. Challenge is the robot should try to attack and burst the balloon which is present on the other competing robot. Same time, it should defend itself from other robots to save its balloon.

Rules:

1. Robot should be a wireless controlled Robot built by yourself
2. Robot base height should not be more than 10cm from the surface level
3. Team size can vary between 1 to 3 members per team. Only one team will be allowed from one school.
4. Size of the robot should not be more than 20cm X 10cm
5. Defending needle should face outside the Robot at the maximum length of 10cm
6. It should attack the balloons on another robot and defend its balloon as faster it can
7. Robot which lasts with the balloon wins the challenge

We are attaching the sample arena and model robot (Note: we do not guarantee any resemblance of this arena for this competition)
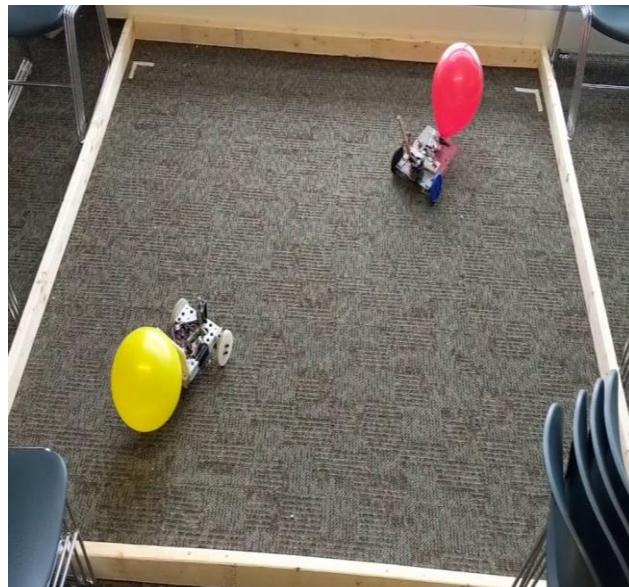
My Innovation Challenge:

Rules:

1. Team may consists of 1 to 3 members.
2. You have to submit the project abstract in the given link on or before 20-12-2023.
3. The project idea should solve at least one of the society problems which we are facing nowadays.
4. Category 2 students should use IoT or AI concepts to make their projects.
5. The sort listed projects will be informed after the deadline date.
6. The sort listed project will be given the Team ID and will be allowed to present their project in the final event.
7. A school can submit Two Innovation project from each category.
8. Project selection criteria's – **Innovative Idea, Project Presentation, Project working**
9. Prizes and Rewards will be given for the best projects on the valediction ceremony on the same day