Name of Event:	Innovative
Name of Theme:	Greener Digital Cities
Robot per team:	Please refer below
No. of players:	4 players per team
Robot control:	Autonomous / Remote Control
Game Summary:	The innovative robot category allows each team to innovate, design and build their robots according to the theme. Teams are to demonstrate their robots and express what the theme means to them. They will be scored based on the given criteria for judging.

1. **Equipment Limitations**
   1.1. No limit number of any **INEX** microcontrollers.
   1.2. No limit type and number of sensors.
   1.3. No limit type and number of motors.
   1.4. No limit separated bodies (RC not included).
   1.5. Communications thru Wi-Fi, Ethernet, Bluetooth, and Radio Frequency (RF) are allowed.
   1.6. There is no size limit to the robot design but participants need to provide their own equipment to facilitate the presentation.
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2. **Criteria for Project Evaluation**
   2.1. Criteria 1: Defining the problem and the solution (**30%**)
      2.1.1. Participants clearly identify the problem and its significance to the community.
      2.1.2. Participants present existing solutions and approaches to the problem.
      2.1.3. Participants present their solution in relation to other solutions.

   2.2. Criteria 2: Testing the Robot / Device (**30%**)
      2.2.1. Design of the test plan (20%)
         2.2.1.1. Detail out what to test, how to test, and expected results.
         2.2.1.2. How will you test to conclude that your project works?
      2.2.2. Robot Demonstration (10%)

2.2.2.1. Did the robot/device function properly? Sometimes, technical problems arise and failure occurs during the actual contest. It will be up to the judge to decide on how to grade it.

2.2.2.2. Having a sufficient number of test results and test videos to back up the testing can help.

2.3. Criteria 3: Presentation (**20%**)

    2.3.1. Video Presentation (10%)

        2.3.1.1. Participants must send a video presentation (max of 5 minutes) containing the Criteria 1 and 2.

        2.3.1.2. The video must focus on presenting the evidence of testing the device.

        2.3.1.3. Deadline of submission must be one week before the actual contest (date to be announced).

    2.3.2. Actual Presentation (10%)

        2.3.2.1. Focus on the demonstration of the robot on the day of the contest. How was the conduct of the presentation? on time? organized? good visuals?

2.4. Criteria 4: Question and Answer (**20%**)

    2.4.1. Judges provide 2 questions for each of the teams after they have seen the video. Participants will Answer these questions and write their answers on paper on the day of the contest. How well they answer will be subjective to the judges asking the question. It is important to answer with precision. Answers that require "follow-up questions" will have a lower score.

*Note: Originality is not a criterion. What will be evaluated is the DIRECT work of the students only

3. **Presention during the event**

    3.1. Judges will submit scores for Criteria 1 and Criteria 2. Each judge will submit one question for each team. Questions will be collated. The group of judges will select only two questions per team.

    3.2. Schedule of the presentation is given to participants.

    3.3. At the start of the presentation, the moderator will give the participants (through chat) the two questions of the judges in English and in their native tongue. The participants are given two minutes to prepare an answer for each question. They will write the answer in the chatbox in English. They will then

choose who will say and explain the answer to the judges. Participants should answer in less than 60 seconds and in English.

3.4. After answering the two questions, they will answer any follow-up question from the judge (maximum of two follow-up questions). Answer it also in less than 60 seconds. The answer is said and also written in the chatbox.

3.5. Participants begin their project demonstration to show all function works. Limit time of presentation to 3 minutes. FOCUS ON DEMO ONLY. Judge has the option to ask which to demonstrate at the start.