General Rules 2023-2024

WELCOME TO ZONE01!

Thank you for consulting this document, as it is the gateway to an exceptional educational experience!

Every year, we revise these general rules. Whether you're a beginner or a more experienced player, take the time to read and understand the elements it contains. And review them with your teams to avoid confusion.

Any questions? We are here to help: info@zone01.ca. Have a good robotics season!

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DEFINITIONS

The rules in this section apply to robotics challenges created by Zone01.

RESPONSIBLE PERSON: Person who registers one or more teams for an event. This person will enter team details and select challenges.

TEAM: A group of students aged between 6 and 19 representing a school, college, university, robotics club or coming from a parent's initiative.

COACH: Adult who supervises a team of students and accompanies them during the event.

ASSISTANT-COACH: Adult who assists a coach in leading several teams during the event. This adult can be a teacher, an education specialist, a parent, etc.

CATEGORIES

There are 4 categories of Zone01 challenges, each with its own special features.

MISSIONS
- Table games where robots accumulate the most points in 2 minutes
- Educational challenges perfect for learning robotics
- Creative challenges for the mechanics enthusiasts

SPORTS
- Matches between 2 or more robots who compete against each other
- Tests of strength, skill or sportsmanship
- Emotion and suspense guaranteed

PROJECTS
- Animated presentations in front of judges
- Prototypes in motion
- Ingenious solutions and promising concepts

RACING
- Races on large tracks and obstacle courses
- Autonomous vehicles on track
- From driving to artificial intelligence

REGISTRATION TO A ZONE01 EVENT

Registration for Zone01 events and payment of registration fees can be made online at the Zone01 shop, accessible from the https://zone01.ca website.

AGE GROUPS

When registering, the responsible person must choose an age group for his teams, according to the age of his young roboticists. This choice cannot be changed later. A team may not register for more than one age group at the same event.

	Age Group	Age	School year Quebec	School year Rest of Canadda	Students per team
A.	6-10	6-10 y.o.	Up to grade 4	Up to grade 4	2 to 3 students
B.	10-12	9-12 y.o.	Grade 4-5-6	Grade 4-5-6	2 to 4 students
C.	13-15	13-15 y.o.	Secondary 1-3	Grade 7-9	2 to 4 students
D.	16-19	16 -19 y.o.	Secondary 4-5 and Cegep	Grade 10 and up	2 to 4 students

Robotique Zone01 strongly recommends forming teams of 2-3 students for the challenges.

There should be no more coaches and assistant coaches than teams registered by a responsible person.

All registered students, coaches and assistant coaches attending a Zone01 event must sign the participation and photo/video release form before entering the event.

WORLD ROBOT OLYMPIAD GAMES

Robotique Zone01 can offer World Robot Olympiad challenges at an event. These challenges are open to Zone01-registered teams.

WRO age groups are slightly different from Zone01 age groups.

- WRO Elementary 8-12 age group is open to teams registered in Zone01's 10-12 age category.
- WRO Junior 11-15 age group is open to teams registered in the 13-15 age category in Zone01.
- WRO Senior 14-19 age group is open to teams registered in the 16-19 age category in Zone01.

WRO challenges are available in January. At the national and international finals, only teams of 2 or 3 students can take part in WRO challenges.

The age of the students on December 31 of the year of the competition defines the age group.

We encourage you to try the WRO challenge in your age group, even if you don't want to qualify for the international final.

MAX NUMBER OF TEAMS

For a Zone01 event, a limited number of teams may register. Once this number has been reached, it will not be possible to register additional teams. A school may register as many teams as it wishes if there are sufficient places available.

The "first come, first registered" principle applies.

CHOICE OF CHALLENGE

A team may take part in more than one challenge in its age group if it has additional robots. However, it is not possible to register for a Project or Race challenge at the same time as a Missions challenge.

Be careful when choosing challenges, as it's difficult for the same students to be in 2 places at the same time!

ZONE01 PHILOSOPHY

Robotique Zone01 organizes COOPETITIONS, i.e. cooperative competitions. Our aim is to develop students' sense of teamwork, sharing, mutual aid and cooperation, while enabling them to surpass themselves technically, technologically and scientifically.

This is a competition for students. Only students are allowed on the competition tables and can handle the robots on the practice surfaces.

FAIR PLAY RULE

The FAIR PLAY principle requires teams to respect not only the rules of the game and the general regulations, but also the very essence of the game.

In all Zone01 categories, "grey areas" are left intentionally and unintentionally to allow room for creativity. If a team interprets the rules in such a way as to penalize another team or negatively influence the team rankings, the head judge may request a modification to the team's strategy.

If a team appears to be using a robot designed or programmed by an adult, if the robot is a copy of one purchased on the Internet, or if several teams appear to be using identical robots, the head judge may question the students about the design and programming. At his or her discretion, the head judge may apply a penalty of 50% or 100% of points or exclude the team from participation in the subsequent round.

ROBOT DESIGN

To take part in the competition, teams must bring their own robotics hardware, computers or tablets, and a power bar.

ALLOWED ROBOTIC PLATFORMS

CATEGORY	ALLOWED PLATFORMS
Missions 6-10 y-o	WeDo 2.0, Spike Essential Spike Prime / Inventor (2 ports only using the icon blocks) Whalesbot MakeU et Smart (without the remote control mode)
Missions 10-19 y-o	LEGO NXT, EV3, Spike Prime / Inventor
Sports	LEGO NXT, EV3, Spike Prime / Inventor + camera
Projects	Any platform
Races	See the challenge rules

ALLOWED PARTS

Any LEGO piece is permitted. When a LEGO piece is unique, i.e. produced in a limited edition and other teams would not be able to obtain it via popular sites (Bricklink, LEGO Pick a Brick, etc.), the principle of FAIR PLAY prevails.

It is forbidden to modify a LEGO part, for example, by cutting, filing, etc.

The following sensor is no longer permitted in Zone01 challenges. But it may still be allowed in WRO RoboMission challenges. This will be confirmed in January 2024.

Name	Image	Usage
Hitechnic color sensor		Detection of more colors than the LEGO sensor

EV3 REPLACEMENT PARTS

Zone01 allows teams equipped with the EV3 platform (no longer sold by LEGO) to use medium motors and rechargeable batteries equivalent to the original parts, which can be found online.

Zone01 also allows the use of flat cables to connect motors and sensors to the brick. These are available online at the Zone01 boutique.

Please note that replacement parts are not permitted at international World Robot Olympiad events.

3D PRINTED PARTS

Only in the creative challenge of the Mission category (Risky Rescue in 2024) it is possible to create and 3D print up to 3 parts. These parts must be of your own creation.

The judge may ask to see the drawings of the parts at an event. Let your creativity flow!

PROGRAMMING LANGUAGES ALLOWED

All types of programming language that are compatible with the platforms allowed for the challenges are permitted during the challenges.

Unless otherwise specified, robots must be able to operate autonomously, i.e. be programmed in advance by the team.

MANDATORY INSPECTION AT THE EVENT

Robots can be built and programmed prior to the event. All robots in the Missions, Sports and Racing categories will be inspected by the judge before the start of the challenge to ensure compliance with the rules. Particular attention will be paid to robot dimensions.

A robot CANNOT be used by more than one team, just as a student CANNOT be entered on more than one team.

At any time, the judges and the head judge may question the design or programming of a robot under the FAIR PLAY rule. If an irregularity is pointed out by the head judge, the team will have 5 minutes to comply with the rules.

A team unable to comply within the given time limit will receive a score of 0 for that round.

Any device or equipment that may interfere with the transmission and/or reception of an infrared, Wi-Fi or Bluetooth signal will not be permitted during the competition.

DESCRIPTION OF THE PLAYING FIELDS

Robotique Zone01 offers schools the opportunity to purchase official challenge mats by ordering them from the Zone01 shop at https://zone01.ca.

Although it is not mandatory to purchase these surfaces, it is recommended that you use them to calibrate your robots to the correct parameters.

Some surfaces may require wooden construction. The challenge editorial committee makes every effort to describe the surfaces as accurately as possible by publishing detailed plans and photos.

During the competition, teams (robots) must adapt to the playing surface, not the other way around. Teams may not request modification of the official surface or special permission. Teams should build their robots with adaptability in mind.

SCORING

A team that does not take part in a round or challenge for which it has registered will receive a score of 0.

Bonus points available in certain challenges are only awarded if the robot has completely exited the starting zone.

Points for finishing in the finish area are only awarded if the robot has obtained other points in the challenge, excluding bonus points.

TWO-STEP STARTING PROCEDURE

In the case of a program that starts the robot directly, the team must wait for the judge's start signal before starting the program.

However, it is also permissible to start the program in two stages. The judge may allow the team to start the program that does not directly set the robot in motion. Then, on the judge's second start signal, the team can set the robot in motion by pressing a button on the brick or on a tactile sensor connected to the robot.

JUDGES

Zone01 invites volunteers to judge regional competitions and the national final. Some judges may also be invited to participate in international competitions.

Throughout the year, interested parties can add their names to the bank of judges/volunteers for the competition season by registering online.

Judging is carried out with the help of a tablet connected to the scoring system by Wifi. For tabletop challenges, scores are entered by observing the position of the robot and game accessories at the end of the round. For projects, scores are entered by assigning scores from 1 to 5 or 1 to 10 to several criteria.

Video are prepared and Zoom meetings are held with judges before competitions to clarify certain elements and answer questions.

Zone01 also enables judges to practice entering scores remotely.

On the day of the competition, Zone01 will lend judges a judge's jacket and a tablet for score entry. If two judges are assigned to the same table, only one tablet is provided.

CRITERIA FOR JUDGING AT ZONE01

For a regional or national event, a judge must be fluent in either French or English, ideally both. For an international event, fluency in English is essential.

A judge must know the rules of the challenge and act impartially.

A judge may not judge a team he or she is coaching, or in which a member of his or her family is participating. Should this be the case, the judge must withdraw and ask to be replaced by a judge from another table.

JUDGES' RESPONSIBILITIES AT ZONE01

- Ensure robots meet challenge requirements
- Position challenge accessories on competition table
- Ensure that the robot is correctly positioned in the starting area
- Ensure team is ready and satisfied with the positioning of accessories
- Give starting signal by counting 3-2-1 GO and starting stopwatch
- Enter scores

SCORE ENTRY

At the end of the round, the judge ensures that no one touches the challenge table during score entry. The judge notes the position of the robot and accessories and enters the information into the judging interface.

The judge asks a team member to confirm the scores entered on the tablet. In the event of disagreement between a team and a judge, the latter may call on the competition's head judge to settle the matter.