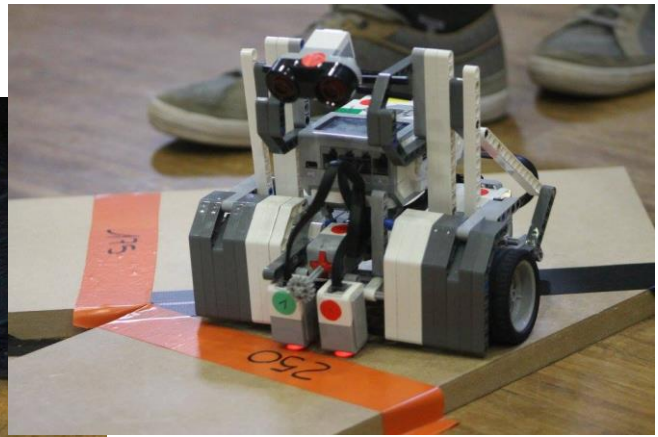
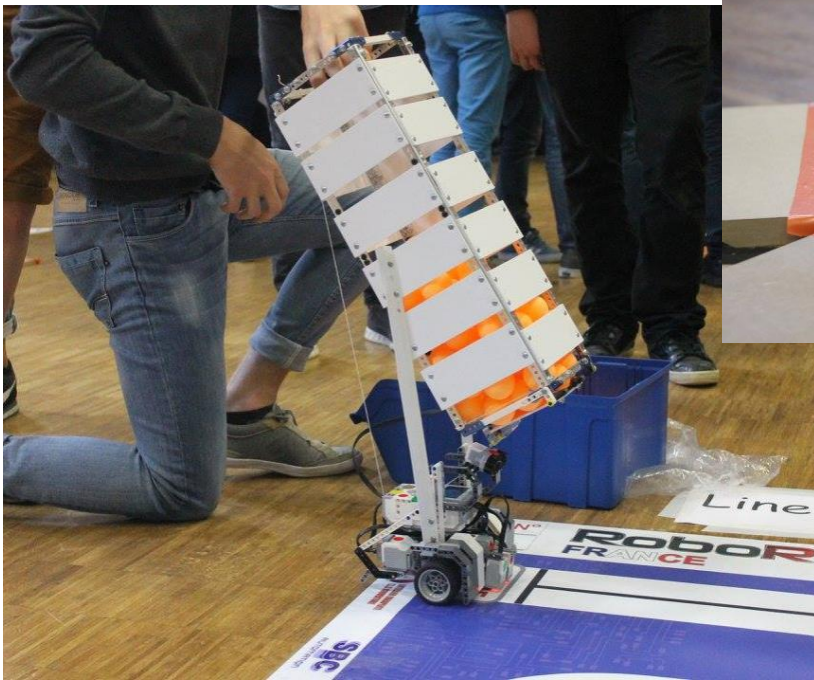


Rules

Triathlon challenge 2019



The participants have to design and build a robot (and eventually a second robot) following the rules and the spirit of this RoboRave. This robot must complete the rules below. Each team can be helped by a coach (one coach per team, at the most) but the design and of the robots must be created by the pupils. The robots will be approved by the RoboRAVE France-Craon at your arrival. The challenge is going to have a qualifying phase and a final phase.

Chapter 1 Target of the challenge

Article 1: objective

To design, build and program an autonomous robot able to participate at the three challenges (a-MAZE-ing, line following and robot sumo challenges)

Chapter 2 Characteristics of robots

Article 2: Characteristics

Only one modification is possible on the robot:

- Remove the system which contains the balls for the 2 other challenges.
- Weight need be less than 1000g without the system that contains the balls.
- The floor space of the robot must not exceed **18 cm x 22 cm**.

For the a-MAZE-ing challenge, it will be permitted to use the sensors already used in two other challenges.

- The robot has to be autonomous (all platforms are accepted).
- All types of sensors are allowed.
- The energy source is absolutely electric battery type or accumulator.

Chapter 3 General rules

Article 3: general rules

- The robot must not suffer any physical charge between each event (except that specified in article 2)
- Teams will have a limited amount of try on the a-MAZE-ing challenge and the Line following challenge which will be determined by the number of teams. The best score is retained for the final ranking.
- For the robot sumo challenge the teams participate in triathlon will meet the team which participate to this challenge. Every victory will earn points.
- The first 2 teams qualified for the final.
- **Organization can be changed.**

Chapter 5 Scoring

Article 4: before the event (deadline Friday, 17th May 2019)

- PowerPoint presentation: **225 pts**
- Partnership with a company letter: **75 pts**
- Bonus video presentation in English on the blog: **75 pts**
- **For High schooler**, presentation sheet of the company: **150 pts**

Article 5: the day of the event

- **Individual presentation of their work by the team and the company in English: 225 pts**
- **Ratification: points will be given depending on the customization of the robot**
 - **Basic frame: no bonus**
 - **Customization of the robot: 50 points**
 - **Complete conception: 75 to 300 points**

Article 6: during the event

For the 2 challenges a-MAZE-ing and Line following, scoring is the same as those who do these challenges (see rules). Once every team has scored, points will be added to already awarded points gained before and the day of the event.

For the SumoBot challenge, each battle consists of 3 fights of 2 minutes each. Each team made at least 6 meetings consisted on the triathlon challenge (or more depending on the number of team) against others Triathlon challenge teams.

- A 2-0 victory brings 100 points,
- A 2-1 victory brings 75 points,
- A drawn match brings 50 points,
- A 2-1 defeat brings 25 points,
- A 2-0 defeat brings 0 point.

After a qualificative phase, A ranking is made to give points to teams (maximum 700 pts) which will be added to the points given before the event.

Chapter 6 Fair play

The participant must keep calm, courteous and respectful.

Article 7: disqualification

Your team will be disqualified if:

- The robot does not follow the characteristics of robots given by article 2.
- A participant does not exhibit courtesy or respect towards the referee.

Article 8: objection to the referee

- No objection to the referee's decision will be accepted.

Article 9: claims

- All claims must be made in the presence of team manager.