Open Exhibition
June 2020 Design Contest

Situation

Robots are becoming partners and collaborators. They are constantly making our daily life easier.

But they could do much more if you make them smarter. Use your creativity to teach your robot to solve new tasks, help people or make us happier.

« Ça va aller bien mieux comme ça… »

Design requirements

Your need to create a robot prototype that can:

1. Solve a problem in our daily life
2. Replicate an existing machine/tool and make it better
3. Or be a fun prototype to watch and play with.

The prototype shall be functional since you will need to make a demo. It shall use at least one LEGO motor so the robot can move. And it must be your own design!

Example: An EV3 robot that uses a mechanism to turn on a real desk lamp automatically when it is too dark.

Materials

- **Structure**: any materials including LEGO pieces.
- **Control brick**: WeDo, Spike or EV3 (one type only)
- **Software**: Any compatible software
- **Motors or sensors**: Any number of motors and sensors
- **External parts or equipment to interact with**: No restriction

Team

You can make a team up to 3 students within Zone01ORC clubs or you can work with your brother/sisters/friends to make a team（Team members must not be an adult）.

Categories

The exhibition is divided into 3 categories depending on the LEGO platform you use:

- **WeDo**
- **EV3**
- **Spike**

Judges

There are 3 groups of Judges

Group 1: Professionals

        Engineers, robotics instructors or people working in relevant fields

Group 2: Parents

        Club members' parent or other. A parent will not judge a family member

Group 3: Students/kids

        Students from 10 to 18 years old that can English / French.

Scoring

Each contestant has 3 minutes (WeDo) or 4 minutes (EV3-Spike) to present his/her prototype. Presentation can be made in French or English. Max score is 40 points.

Presentation (10 points)

Contestant needs to present his/her design to the judges including
1. The origin of the idea,
2. The function of the robot,
3. The pros and cons of this design.
4. The problems encountered.

Contestant can share his/her screen to show slides, drawings, photos or video to support the presentation.

Creativity (10 points)

A measure of the innovation and new ideas embedded into the design.

Demonstration (10 points)

The robot must be functional and do a full demonstration during the contest.

Originality (10 points)

Contestant can use any sources (Google, YouTube etc.) or other people's ideas as references. However, the design needs to involve his/her innovative ideas as much as possible.

The final score is the average score from all judge groups.