



Open Category

General Rules

Deskripsi, Peraturan, dan Penilaian

Food Matters

1. The Robot's Mission

The mission this year is to build a robot that supports the way we grow, share and consume food. Your project should focus around at least one of the following aspects of the Goal 2 of sustainable development:

- Promote sustainable agriculture
- Improve nutrition
- Achieve food security
- End hunger



This way, each robot will contribute to a goal of the world-wide UN sustainability goals. More information about this specific goal you find at: <http://www.un.org/sustainabledevelopment/hunger/>

2. Qualification for Participation and Team Composition

1. Age of participants
 - Open WeDo Category is open for Elementary participants with date of birth falls on or after 1 January 2006
 - Open Mindstorms Category is open for participants with date of birth falls on 1 January 2000 to 31 December 2011
2. Team composition
 - A team consists of one (1) to three (3) students and one (1) coach.
3. Coaches
 - Coaches may work with more than one team; however each team needs to be assisted by a responsible adult. This person may be an assistant coach.

- Coaches may offer students advice and guidance prior to the competition, however during the actual Olympiad competition, all work and preparation must be performed by the student members of the team.
4. Participating teams cannot compete in any other IRO2018 competition category.

3. Material

1. The size of the booth provided to teams will be 2 m × 2 m × 2 m.
2. All elements of a team's display must remain within the allotted 2 m × 2 m × 2 m booth area. Team members may be outside this space during a presentation, however, unless requested by judges, robots and other display elements must remain within the allotted area.
3. Teams will be provided with the option of using a table. Tables must be placed within the 2 m × 2 m floor space allocated to the team. Teams will be allocated one (1) to three (3) chairs in their booth area.

4. Regulations about the Robot

1. There is no restriction on the balance between LEGO® elements and other materials.
2. All robots must be operated by WeDO (9580) or WeDo 2 (45300) for WeDo Category. RCX, NXT, or EV3 controller for Mindstorm Category and any software supporting them.
3. Maximum dimension of the robot is not limited.
4. Robots may be preassembled and software programs may be pre-made!

5. Competition

1. Open Category teams must go through these processes:
 - Final assembly and testing of the robot.
 - Preparation of the booth (including display of posters, etc).
 - Pre-judging inspection to assess adherence to the rules.
 - Final preparation time (ensuring that rules are adhered to).
 - Demonstration and presentation to the judges (including Q&A from judges) and demonstrations and presentations to the general public.

2. At the time of registration, teams must electronically submit a written and illustrated report summarizing what the robot can do, and in which way the robot is unique and conforms to the theme. The report must include a visual description incorporating pictures, diagrams, and/or photos from different angles and an example of the program. A copy of the report must be handed out to the judges in paper form (4 copies minimum) at the time of judging. The softcopy of this report must be sent electronically to the organizer 1 month before the competition starts.
3. At the time of registration, teams must submit a video (maximum of 2 minutes) demonstrating their robot. This compulsory video will not attract any points, but will be used by judges to familiarize themselves with the robot and its operation in order to formulate questions, etc. The maximum duration of the video is 2 minutes, maximum size is 30mb. Video should be uploaded as unlisted video to YouTube.
4. Softcopy and link to the YouTube video must be send by email to iro@mikrobot.com 1 month before the competition at the latest.
5. Teams must decorate the booth with one or more posters with the minimum dimension of 120 cm × 90 cm. The poster(s) should introduce the robot project to the visitors.

6. Presentation

1. All team displays must be completed and teams ready to present to judges and the general public by the allotted time. Deadlines will be provided by the organizer one month in advance of the competition.
2. Teams must maintain a presence within the team's booth during competition hours in order to present to members of the general public and judges at any time. Teams will receive a warning of not less than 10 minutes prior to judging taking place.
3. Teams will be allocated approximately 10 minutes for judgment: 5 minutes to explain and demonstrate the robot, remaining 2 - 5 minutes to respond to questions from the judges.
4. Official language for all presentations is Indonesian and English. Interpreters are not allowed. The chosen language will not affect scoring.
5. Presentation can be done in any form such as role-play, newscast, etc. as long it shows what the project is about, show relevance to the team, and include robot demonstration.

7. Judging criteria per category (Maximum Score = 200)

Project		Total Points: 50
1	Creativity & Quality of Solution	25
2	Research & Report	15
3	Entertainment Value	10
Programming		Total Points: 45
1	Automation	15
2	Good Logic	15
3	Complexity	15
Engineering Design		Total Points: 45
1	Technical Understanding	15
2	Engineering Concepts	10
3	Mechanical Efficiency	10
4	Structural Stability	5
5	Aesthetics	5
Presentation		Total Points: 40
1	Successful Demonstration	15
2	Communication & Reasoning Skills	10
3	Quick Thinking	5
4	Posters and Decorations	5
5	Project Video	5
Teamwork		Total Points: 20
1	Unified Learning Outcome	10
2	Inclusiveness	5
3	Team spirit	5

*** Projects which are clearly has no relevance to the theme at all will receive 0 score.**