

Amazing Robots – competition for student and amateur teams

- Grand prizes €10,000, €5,000 and €2000
- The competition will be held at the Teknologia23 event 7.-9.11.2023
- In a robot competition, the most important thing is an idea and original implementation
- The competition is organised by the Finnish Society for Information Technology and Electronics.
- The robot can be made from a construction kit or completely by yourself
- The robot doesn't have to be made for this occasion
- Feel free to register at mauri.inha@ties.fi

The competition aims to highlight the latest technology and creativity. The purpose of the competition is to increase the visibility and interest of information technology, robotics and artificial intelligence in Finland in particular, and to encourage students and amateurs to open-mindedly combine expertise from different fields. The message is also for industry: new technologies must be introduced open-mindedly in both products and production.

Overview

The task is to make a robot that does something interesting. What it does is up to the creators to come up with. The idea is to let creativity and technical skills blossom. There have been few restrictions and a lot of freedom.

The competition is intended for students of universities and universities of applied sciences and amateurs in the field.

The competition will be held in connection with the Teknologia 23 event at Messukeskus on 7.-9.11.2023.

The competition is organised by the Finnish Society for Information Technology and Electronics in cooperation with Mikrobitti magazine and Messukeskus.

Robot

1. The device can be a single robot or a swarm of several robots. In the future, a robot will refer to the active parts of a competition device, regardless of how many such parts it has.
2. The robot must operate with the energy stored in it. In a competitive situation, the robot must be emission-free.
3. The robot can connect to the local network, open network connections and retrieve information from it. The connection must not be used to control the movements of the robot. The necessary data for establishing a connection can be entered into the device before the start of the race. The functionality of the connection is the responsibility of competitors.
4. If a robot consists of several active parts, they can communicate with each other using legal radio frequencies and protocols, sounds, light and gestures. Sounds and lights must

not pose a danger to the public (loud sounds, overly powerful lasers, flashing causing epileptic seizures, etc.).

5. The robot must have moving parts, even if the frame itself does not move.
6. There must be a presentation of the robot made on one slide or a video of about one minute in length. These are used to present the winners after the competition on the competition website. Competitors can also use them in connection with the competition to demonstrate robots (see Competition status and status, section 3).

Competitive status and situation

It must be possible to follow the performance in the competition mode. The performance will also be videotaped and shown to the audience on screens.

1. The organizer of the competition can provide a competition platform with each side of 2 meters. Contestants can also use the stage as a platform.
The competition platform is flat and matte black. The borders are marked with a white painting or tape 5 cm wide, where the outer edge of the marking marks the border. The walls and ceiling are not marked.
2. The robot will be placed in the competition area as desired by the creators.
3. After investing, competitors tell what the robot's function is.
4. After permission from the judge, the robot is launched. It has a maximum of four minutes to present its programme. The robot should stop by itself at the end of the program.
5. The placement of the robot, the job description, the competition performance and the removal of the robot from the competition mode may take no more than ten minutes. The target time is shorter than this, eight minutes.

The above points are all those where non-compliance causes disqualification.

Review

The following points will be considered in the review. The weighting of the points has not been defined, but the judges make an overall assessment based on the robot's performance. It is not necessary to include all the things to be evaluated in the presentation, except for movement, but the implemented things must have a natural connection to the robot's idea.

1. The movement or gestures of the robot.
2. The visuality of the robot.
3. Robot soundscape.
4. The technical challenge and implementation of the robot.
5. How the active parts of the robot work together.
6. How the robot reacts to its environment (whether it understands gestures, speech, whether it reacts to music being played, audience, etc.)

In addition to these, the evaluation is influenced by the idea itself and how well the entity implements it. The presentation of the robot is also taken into account in the review.

Jury

The jury includes experts from various fields. In addition to technology and the business sector, the jury also includes representation of the arts.

Awards

The grand prize is €10000, second place €5000 and third place €2000. Other prizes will be announced a little later. The jury has the right to change the criteria and amounts of prizes in the competition if there are special justified reasons for this.

Date of the competition

Free practice sessions and possible pre-qualification will be held at Messukeskus on Tuesday 7.11 and the final at Messukeskus on Wednesday 9.11. We aim to help competitors from outside the Helsinki metropolitan area cover their travel costs.

The intention is to present the competition entries at the TiES stand at Messukeskus on 7.-9.11. to the fair audience and at the same time to promote your own educational institution.

Competition registration

It is advisable to register for the competition as soon as the group is assembled. In this way, the group receives up-to-date information about the competition at all times. Starting from registration, competitors will receive the 2024 Mikrobitti digital version at the address they provided.

To register for the competition, please send the information requested below to Mauri Inha at mauri.inha@ties.fi :

1. Team name (self-invented).
2. The name and email address of the team's contact person.
3. The name and mailing address of each team member.