

International

ROBOT LEAGUE 2025

Exhibition coordinator: maarja@robotex.ee

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1 Introduction

Robot League 2025

The theme for the Robot League exhibition this year is "Robo-Doctors: the doctor's appointment of tomorrow"

The Robot League exhibition is a gateway for preschool and elementary school students to step into the ever evolving world of robotics. Unlike the other competitions at Robotex, at Robot League, speed and power are not the determining factors for victory. In fact, there are no podium positions at all! Instead, we celebrate every child's participation as a victory on their journey in the world of science, where we value teamwork, creativity and the programming of an educational robot.

This year, the Robot League exhibition gives the students a chance to present their vision of the doctor's appointment of tomorrow! In addition to preschool students, elementary school students and enthusiasts, we welcome families to take part in the exhibition. All 3-5 member teams composed of up to 12-year-old children can make a team.

- » Teams of 3 to 5 children up to the age of 12 can register.
- » The participation fee is 15€.
- » Registration takes place at https://game.robotex.ee/

In case of questions, write to maarja@robotex.ee

Inspiration Robo-Doctors: the doctor's appointment of tomorrow

Mia and Marten had been grumbling in the garden all morning. It was springtime, the sun was shining and it was fun to run, jump and play on the grass. But when they finally got inside, Mia's face was slightly flushed and she sneezed three times in a row.

"Ah-choo! Ah-choo! Ah-choo!"

"Do you have a cold or allergies?" Marten asked his sister worriedly. "I don't know... it just feels weird," Mia sniffed and pulled the blanket around her.

Mum came out of the kitchen and put her hand on Mia's forehead. "Oh, your head is so hot. You might have a fever."

"Do we have to go to the doctor?" Mia asked, becoming particularly anxious, and the corners of her mouth were beginning to twitch with tears.

Mum grinned. "Oh no, sweetie. You don't have to go anywhere or drive for such a little thing now. We've got our Robodoctor." "Our Robit?" Mia asked with a raised eyebrow.

Just then, a familiar buzzing voice came from the bedroom and Robit appeared – their daily household robot who usually washed windows, cleaned and read bedtime stories. Today he was wearing a white coat and a small flashing hat. Around his neck hung something resembling a stethoscope. "WARNING! THE HEALTH CHECK IS ABOUT TO BEGIN!" Robit announced solemnly.

"Are you a doctor or a robot?" Marten asked. "I'm both, because I'm a robot doctor. No longer do people have to do such little things to find out who has what." Mia and Marten looked at each other. "Really?"

Mum intervened, "Yes, that's right. The mother asked. People don't need to go to the doctor – the doctor comes to them. So, a robodoctor." Robit asked Mia to close her eyes and said: "Please open your eyes again. Can you? Take a deep breath. Now, let's see. Measure, analyse."

Mia did as Robit instructed. Robit scanned Mia all over, and a tiny red light flickered on the robot doctor's robot skull. After a few moments, the diagnosis flashed on the screen: "Mild overload, allergy to pollen. Treatment: one cup of nettle tea, lots of rest, three hugs and two cartoons." "Is that all?" Mia asked.

"Yes, for the moment. Would you like to add a therapeutic robot pat on the head?"

"Of course!" Mia cheered.

Robit reached out his hand, which at the same moment became as soft as a baby's paw, and patted Mia on the head. "Attention! Therapy activated."

"How do you know it's really working?" Marten asked sceptically. "The data is based on curing millions of patients. ROBODOCTOR IS NOT WRONG!" Mia was already drinking her tea, watching cartoons and felt that indeed – feeling better. Her head was lighter and her nose dripped less. "I have a feeling that Robodoctor works better than the old doctor. And he doesn't give injections either."

"Well, you see, that went particularly well," smiled the mother. "Robodoctors don't forget, you don't have to wait for hours at the door, Robodoctors don't take long lunch breaks and on top of that, their handwriting is perfectly legible," Robit added and smiled – at least as much as a robot can smile.

2 Exhibition project and robot

- **1.** The exhibition project (hereafter the project) is a self-made mat or environment that is a prototype of the team's idea, the dimensions of which can be $0,4 \times 0,4 \times 1$ m (W, L, H). The project with the robot must be transportable and fit on a $0,4m \times 1$ m table in the exhibition area.
- **2.** The project can be made from a variety of materials and pieces, including natural or 3D printed materials.
- **3.** The project must include at least one programmed robot performing at least three activities and/or scenes. Preferably, the activities could be in line with the team's chosen idea for the exhibition. For example, a robot on a mat might move from point A to point B (first action), dance (second action), say something (third action), etc.
- 4. The exhibition is open to a variety of programmable robots suitable for ages up to 12 years. For example: LEGO- WeDo, Bee-Bot, Blue-Bot, Codey Rocky, InO-Bot, Pro-Bot, Ozobot, Edison, Sphero, Strawbees Quirkbot, Dash, Dot, mBot, Engino ERP Mini and other robots of similar level and complexity.

3 **Team**

- **1.** The team is made up of three to five children aged 12 or younger and an adult chaperone.
- 2. The chaperone can be a teacher, an extracurricular activity instructor or a parent and cannot have more than one team in the same exhibition (to be checked at registration). The chaperone is responsible for the welfare and safety of the children on site and has a list of their team members and their contact info.
- **3.** It is recommended that teams wear similar clothing to stand out from the crowd.
- **4.** The team is responsible for the security of the personal belongings they bring with them, including the exhibition project and the robot.

4 Exhibtion

- **1.** When arriving at Robotex, you will have to go through the on-site registration before the exhibition.
- **2.** The exhibtion theme is "Robo-Doctors: the doctor's appointment of tomorrow".
- **3.** Each team will have three minutes (3 min) to present their project. The presentation must include:
 - **a.** an introduction to the project, or heroic story, of the mat and the activities carried out by the robot.
 - **b.** an introduction to the programming code, or algorithm, needed for the robot to work.
 - **c.** an introduction to the team members and their roles
- **4.** The robot must remain on the mat during the presentation.
- **5.** If the robot gets stuck, you can help it by lifting the robot or playground elements with your hand.

5 Feedback

- Feedback on the exhibition entries will be provided by the mentors, who will visit the teams to give feedback on their work and, if necessary, ask the children for clarification.
- **2.** The following elements will be taken into account when providing feedback:

a. idea - a bright idea and creativity;

b. execution - the integrity of the exhibition mat/environment or prototype and the action/scene (robot mobility, detail and thoughtfulness).

- c. program preferably, the robot has been programmed using original code or an activity where the code or algorithm has not been inserted in a pre-programmed way (e.g. barcode scanning).
- **d.** teamwork sharing tasks, involving all members and presentation.
- **3.** Feedback will be given to the teams on the same day. It is important to the mentors that all children have a good and positive experience.
- **4.** Any questions or problems that may arise during the event will be solved by the mentors and/or the organizer

