

Robotex International Summer Camp 2025

Study program

Program volume: 3 EAP

Program by hours: 78 h

Summer camp language: English

Summer camp purpose

The purpose of the summer camp is to provide the participants with a deep understanding of robotics, engineering, and programming. In addition, it fosters critical thinking in the participants and offers international communication and teamwork experience.

Description of the summer camp

"Hackathon style" 5 day summer camp. Where 14 to 17 year olds team up (Randomly) and involve ideas around one topic (with limited resources) . Teams consist of a maximum 5 members and 1 mentor, who can mentor a maximum of 3 teams. Team has 4,5 days to make revolutionary robot which is relevant to the topic, something new or better from the previous version. Same time working out presentation pitch for the "pitch day" to sell the robot for the "companies" and judges. Same time every team has access to the workshops and machinery labors, where they can get to know new machinery and use them for creating the robot. Every day someone (Or we go somewhere) will make inspirational speeches which will help students to develop communication, presentation, teamwork, robotics, programming, technical skills. Camp ends with "pitch day" where every team presents their robots with awesome and creative pitches. Judges, team mentors and other mentors will give them feedback. (What to improve, what is good, what is bad, what they made, how they made, mentor talking to others about team teamwork and workflow and so on.)

Summer camp learning outcomes

L01	Is capable of creating and designing robots that can solve challenging problems while using limited materials.
L02	Is able to program and knows basic programming concepts.
L03	Is able to and knows how to use various machinery and tools to construct robots and their components.
L04	Familiar with the use and programming of various sensors and motors for the robot.
L05	Is capable of arranging and coordinating a team and individuals.
L06	Can and is able to develop engineering solutions for specific problems.
L07	Is able to and knows how to create and compose a presentation PITCH for the product.

Summer camp flow by days

D A Y	SHORT DESCRIPTION OF THE DAY	LEARNING GOALS OF THE DAY	LEARNING BY HOURS
1	Camp introduction and meeting games, mentors introduction. Creating teams. First brainstorm in teams, idea submitting, meeting with team members, setting up a plan, first hours realization of the solution.	+International communication +International teamwork +Planning and designing progress of robot +Learning how to use different heavy machinery and tools for building a robot.	CT-8h
2	Learning basic programming and evolving robots in teams. Using different tools and machinery for building a robot.	+Knowledge on how to design and program a robot. +Acquires practical experience in using various machines and tools. +acquires skills and knowledge about using and selecting different	CT-8h DS-5h

		robot sensors and brains	
3	Learning how to use robot sensors and connect them with the robot main brain and other parts. Getting knowledge about programming sensors and how to use and connect them. Every team starts to plan out a presentation for PITCH DAY.	<ul style="list-style-type: none"> + Getting knowledge about programming sensors and how to use and connect them. + Evolving programming and getting knowledge on how to optimize robot code. +Acquires practical experience on how to build a robot. 	CT- 8h DS- 4h
4	Preparing for PITCH DAY and finishing, finalizing solutions (Robots.)	<ul style="list-style-type: none"> + Know how to design and create professional product presentation pitch. + Can and is able to develop engineering solutions for specific problems. + Getting knowledge on how to test a robot and testing design progress. 	CT- 8h DS- 4h
5	Final, finalizing robots and preparing for Presentation PITCH with the team. Presenting robots to judges and receiving feedback from them. END OF THE CAMP	<ul style="list-style-type: none"> + Is capable of arranging and coordinating a team and individuals. + Is able to and knows how to create and compose a presentation PITCH for the product. + Have experience of presenting a solution in short form as PITCH to the others. + Have experience of receiving feedback. 	CT- 8h DS- 4h

CT- Contact, DS-Distance