



Key Action 2
„Robotics ON” Strategic Partnership



Newsletter no 8

Project reference number: 2017-1-RO01-KA201-037335

„Robotics ON” Project

Strategic Partnership supporting innovation
Erasmus + Programme, Key Action 2
01.11.2017 - 31.10.2019

NEWSLETTER NO 8

October 2019

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PARTNERS:

P1. Colegiul Național "Constantin Carabella"

Târgoviște, **ROMANIA**

website: www.carabella.ro

P2. Anyksciu Jono Biliuno gimnazija

Anykščiai, **LITHUANIA**

website: www.bilngimn.lt

P3. Budapesti Gépészeti Szakképzési Centrum Szily Kálmán Műszaki Szakgimnáziuma, Szakközépiskolája és Kollégiuma

Budapest, **HUNGARY**

website: <http://www.szily.hu>

P4. Istituto Istruzione Superiore A.Volta

Frosinone, **ITALY**

website: www.voltafr.gov.it

P5. S.C. SKA NET SRL

Bucharest, **ROMANIA**

website: www.itadviser.ro

P6. IMPLEMENT 24SOFTWARE SRL

Bucharest, **ROMANIA**

website: www.24software.ro

TARGET GROUP:

84 students (15-18 years old), 21 from each school, students interested in personal development, using ICT in the design and creation of robots, activities that will stimulate and increase the chances of employment at the right time.

OBJECTIVES:

1. Developing digital and entrepreneurial skills relevant to personal development and career.
2. Increasing the autonomy in terms of personal and professional development of the 84 students in Robotics Clubs, at least 32 of them competitive in programming / robotics.
3. Developing the capabilities to adapt, promote and exploit digital technologies by creating a robot, in each partner school, which solves a problem identified at school level.



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IT WAS AND IT WILL CONTINUE TO BE „ON”, WITH OR WITHOUT „ROBOTICS”

Motto: „Small steps lead to big accomplishments.”

Oprah Winfrey

Everything started in January 2017, when two teachers and a private company manager shaped an idea that was to coagulate energy and knowledge in a combined Project Management – Robotics and Programming approach.

Subsequently, the evaluators of the „Robotics ON” project, sensing our enthusiasm and determination, were the first ones to press the ON button, granting financing from the European Commission, through the Erasmus+ Programme, Key Action 2.



Rezultate selecție proiecte de parteneriat strategic Domeniul educație școlară, runda 29.03.2017

Nr. Crt.	Referință proiect	Organizația	Localitate	Județ	Titlul proiectului	Punctaj	Grantul solicitat	Grantul aprobat	Observații
22	2017-1-RO01-KA219-037282	LICEUL TEORETIC TRAIAN VUIA	Resita	Caras-Severin	Developing Key Competences through Drama	73	103110.00	103110.00	Aprobat
23	2017-1-RO01-KA219-037375	Liceul Teologic Ortodox N. Steinhardt	Satu Mare	Satu Mare	Democracy Lessons : Let's debate like in the European Parliament	73	134750.00	131950.00	Aprobat
24	2017-1-RO01-KA219-037259	Liceul Tehnologic Octavian Goga	Jibou	Salaj	Outdoor Learning - Real Learning!	72.5	128630.00	128630.00	Aprobat
25	2017-1-RO01-KA201-037388	Scoala Gimnaziala O.C.Taslauanu	sat Bilbor	Harghita	Intercultural Schools	72	149935.00	121000.00	Aprobat
26	2017-1-RO01-KA219-037255	Scoala Gimnaziala Viceamiral Ioan Murgescu	com. Valu lui Traian	Constanta	For open future school	72	104065.00	103555.00	Aprobat
27	2017-1-RO01-KA201-037335	Colegiul National Constantin Carabella	Targoviste	Dambovita	Robotics ON	71.5	149115.00	149115.00	Aprobat
28	2017-1-RO01-KA219-037085	Scoala Gimnaziala	com. Magura	Buzau	STOP BULLYING: TAKE A STAND AND LEND A HAND	71.5	136990.00	136990.00	Aprobat
29	2017-1-RO01-KA219-037131	Liceul Teoretic Emil Racovita	Galati	Galati	Efficient usage of natural resources	71.5	74405.00	74405.00	Aprobat
30	2017-1-RO01-KA219-037153	Colegiul National Mihai Viteazul	Bucuresti	Bucuresti	Eyes on CyberBullying - Safe Schools and Violence Free	71.5	78070.00	77570.00	Aprobat
31	2017-1-RO01-KA219-037166	Liceul Tehnologic Nicolae Balcescu	Oltenita	Calarasi	Your Rights are My Rights, Fighting discrimination and promoting equality	71.5	137165.00	137165.00	Aprobat



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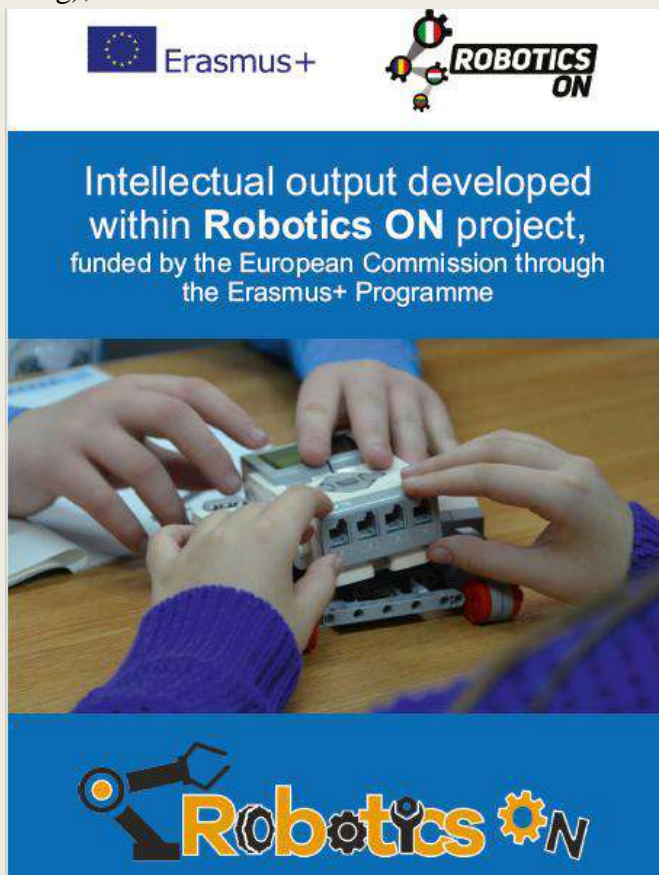


Thus, starting with the 1st of November 2017, for a period of 24 months, The National College „Constantin Carabella” coordinated this strategic partnership project, whose objective was to offer to the target group of 84 students the opportunity to develop their STEM skills and to accomplish a higher level of knowledge in the field of Robotics and Computer Science.

In the long term, the partnership aimed to increase the number of young programmers in the communities of the four partner schools (two vocational and 2 theoretical high schools) through the sustainable functionality of well established robotics clubs, designed as motivational and challenging learning environments.

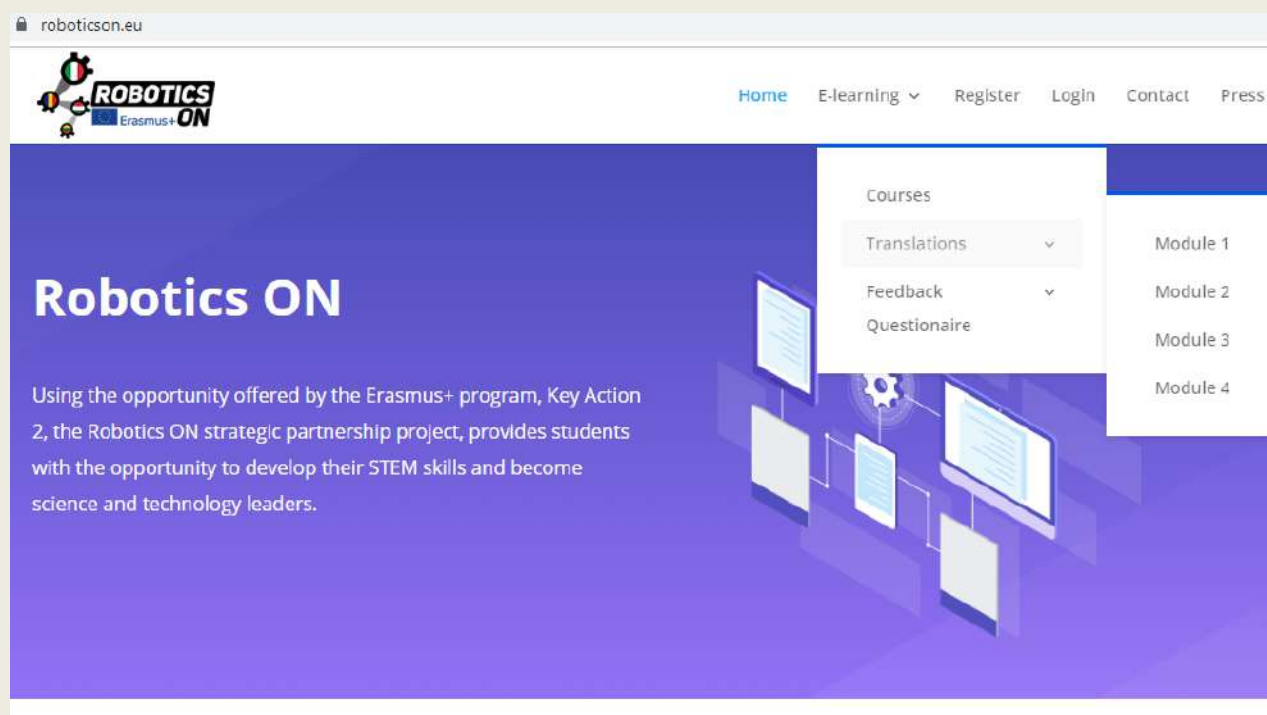
Being a partnership project meant to support innovation in education, **two intellectual products** have been elaborated, tested and improved in association with the other two partners – SC SKANET SRL and SC 24Software SRL – companies from the private sector in Romania, connected to the business environment, the challenges and the needs of the IT market:

O1. The Robotics ON modular curricula (Module 1: Project System Management; Module 2: Critical Thinking. Creative Problem Solving; Module 3: Robotics and Programming; Module 4: Robotics Coding and Driving);





O2. The e-learning web application www.roboticson.eu/.

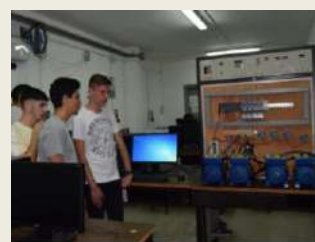


The main categories of the activities carried out were:

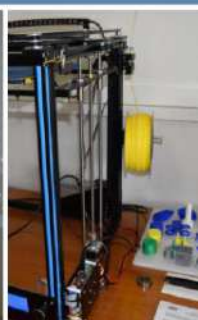
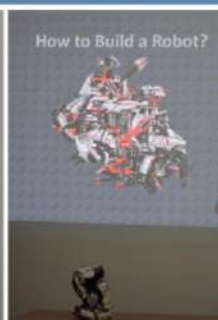
- for the implementation project team: three transnational project meetings and activities for the elaboration/ development of the intellectual outputs;
- for the students in the target group: four learning activities at the partnership level, during which the Robotics ON curricular modules have been tested; the activities have been coordinated by the trainers of the two partner private companies, they were followed by the curriculum implementation activities at the target group level and consisted of peer learning activities, the other 21 students being the indirect beneficiaries of the learning experience acquired by the other 7 colleagues participating in the student learning experience;
- for interested people from the partner school communities: promotion and dissemination activities and two multiplier events organised in Anykščiai and Târgoviște.



*Robotics ON First STEGP March 2018
Erasmus+, Key Action 2*



*Erasmus+, Key Action 2, Robotics ON
September, 2018, Frosinone, Italy*



In each partner school, under the guidance of the coordinating teachers, under the guidance of the coordinating teachers, the students have identified and distributed roles and responsibilities, they have developed and promoted ideas as well as projects for their school or community, they have built robots, both using the LEGO Mindstorms EV3 Programming kit and other programming languages (Java, Python).



Learning activities C4

IIS „A. Volta”, Frosinone, Italy



The students involved were guided to identify strengths and weaknesses, both individually and especially at the team level, they learned to prioritize, seek solutions and make well-founded decisions, they were helped to understand that an idea / a dream becomes reality through an optimal identification and allocation of the necessary resources, by assuming responsibilities and through an efficient collaboration at the team level.

In order to convey the Robotics ON experience, the Romanian students, under the guidance of the coordinator teachers, embarked on an innovative journey, establishing the Robotics Club for juniors (gymnasium students), within which they have developed mentoring learning activities.

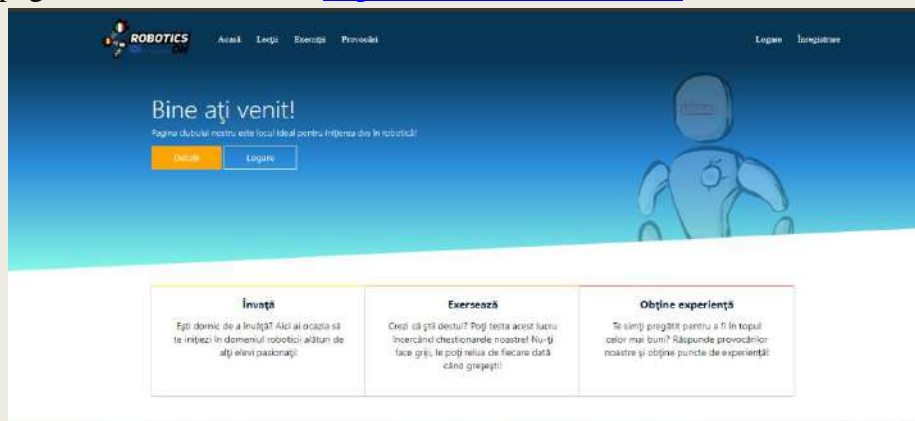


In this way, they made the most out of the experience acquired during the transnational and peer-counseling activities within the Senior robotics club, they valued it in various curricular and extra-curricular as well as interdisciplinary activities, offering face to face and online classes to the juniors eager to find out more about Robotics, both within their school and other schools in the town.



The tutorials realised for the gymnasium students are available online, and they can be accessed:

- on the web page of the robotics club <https://robotics.carabella.ro/>



- on the school's web page <https://www.carabella.ro/proiecte/actiunea-cheia-2>
- or on youtube <https://www.youtube.com/watch?v=q5ajtEzapok>, ensuring thus, their internal and external accessibility.

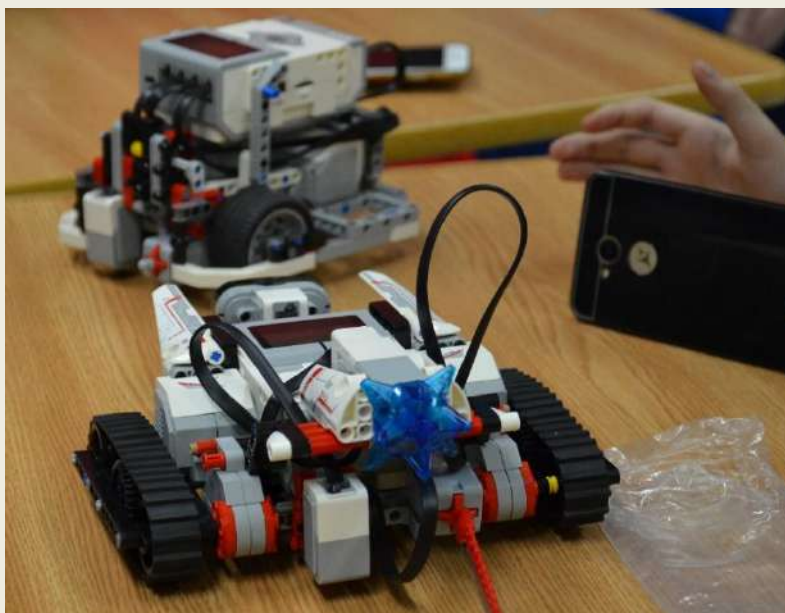
Basically, the tutorials for the juniors as well as the curricula Robotics ON, can be used as educational resources, both in the formal and non-formal environment, by the teachers and the students interested in robotics and programming.

Thus, it encourages the manifestation of creativity and innovation, through an interdisciplinary approach to learning, building robots with which to participate in competitions such as First Tech Challenge.



ROBOTS BUILT WITHIN P1 ROBOTICS CLUB

The Romanian team's robots



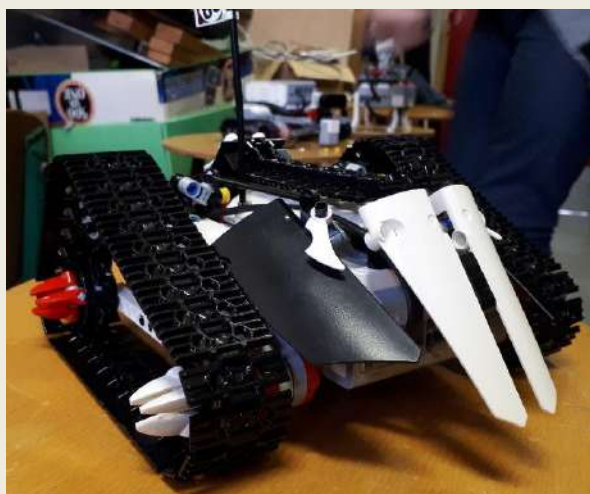
ROBOTS BUILT WITHIN P2 ROBOTICS CLUB

The Lithuanian team's robots



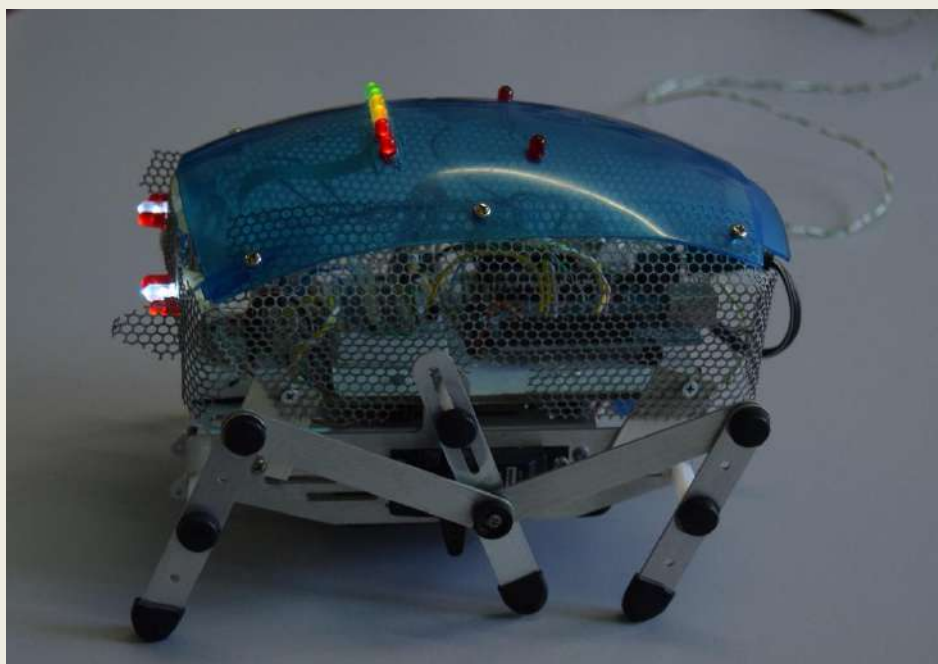
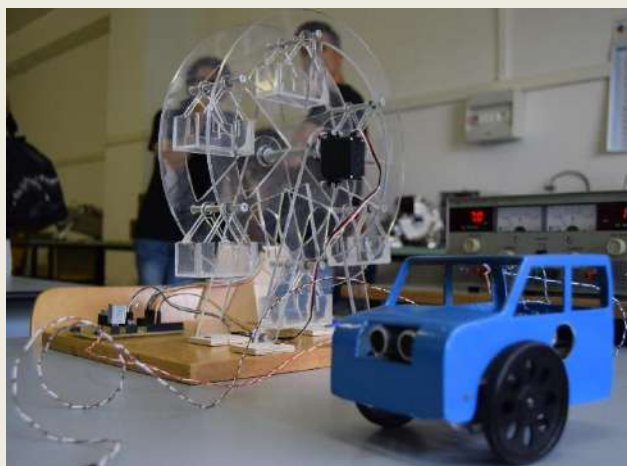
ROBOTS BUILT WITHIN P3 ROBOTICS CLUB

The Hungarian team's robots



ROBOTS BUILT WITHIN P4 ROBOTICS CLUB

The Italian team's robots



**„Robotics ON” - A PROJECT ABOUT PROJECTS,
ABOUT HOW YOU CAN BECOME BETTER FOR YOURSELF AND FOR THE OTHERS**

„It is difficult to express such an experience in words, an experience with unique emotions and feelings, with unforgettable memories and, especially, with learning contexts that helped me to progress and transformed me in what I am today. Everything I have lived and learned, together with my friends from the Robotics club, has essentially contributed to my training and development in areas such as project management, programming and robotics.” - *Teodor Șerbănoiu*

„Robotics ON was more than just a new learning experience; it was the frame in which I discovered my vocation, in which I discovered the joy of sharing further knowledge (through tutoring activities in the junior club). I am convinced that Robotics is everything for me and that this field of activity represents the future of humanity.” - *Alexandra Ion*

„For me, the activity within the Robotics club was and remains the most important personal development experience. My participation in the First Tech Challenge competition, where I got in touch with the best robotics teams in the country and with business people in the IT market, motivated me substantially, so that I was able to use my 3D design skills in promoting our team. Moreover, it helped me to make a decision regarding my future.” - *Cristian Dinu*



12th grade students from C.N. „C. Carabella”, Târgoviște, Romania

„During these years, we have the opportunity to participate in various competitions in the field of Robotics, where we met people passionate about this field of activity, who reinforced our belief that this is what we want to do in future. For now, until we graduate from highschool, we intend to help the new members of the Robotics Club to learn easier what we know and we can do now, so that our team would be even better.”– *students from P1 Robotics Club, Romania*



„Ours involvement in the „Robotics ON” project opened new horizons, helped us to understand how many and varied my study opportunities as well as our career development are within the European Union. It was fascinating to discover other cultures, to look and understand the world, the people from other perspectives, to make new friendships based on common interests and aspirations.”– *Romanian, Lithuanian, Hungarian and Italian students from the Robotics Clubs*





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We hope we have motivated you enough so as to access the web page www.roboticson.eu and to find out more about this experience which has helped us to discover more about ourselves and about the others, within an European framework that we have built together with the ones that gave us the opportunity and the confidence to truly feel what these challenging words „Changing lives. Opening minds.” means.



And YES, that's right! With a huge consumption of resources of time and energy, but indeed, these small steps realised now, together, are essential to the fulfillment of each and every individual's own ideals. Now, we all know that Erasmus+ could be a path that brings together students, teachers, trainers and other stakeholders with different cultural, economic, social and educational background, in order to give them the possibility to understand, work and respect each other and adapt to future learning or working in European contexts.

And we, some mere ants who have been and are still in the trenches, dare to end the story like this: it was and it will continue to be „ON”, with or without „Robotics”, because Erasmus is more than a + (plus); ERASMUS is an opportunity that encourages the valorization of people who put their whole self as well as their best knowledge and skills into everything they do.



Teodora Popa, Partnership Coordinator
Olimpia Oancea, Project Initiator and P5 manager

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