



ERASMUS+ KA1 · COURSE FOR SCHOOL EDUCATION STAFF

Coding and Robotics for the Youngest: VEX 123 and GO for Ages 4–10

A five-day Erasmus+ course for kindergarten and early primary teachers: introduce coding, sequencing and first robotics to children aged 4 to 10 with VEX 123 and VEX GO, and take ready-to-use activities back to your setting.

DATES

19–23 July 2027

VENUE

RoboTech STEM Center, Ptuj, Slovenia

DURATION

5 days · 30 hours

LANGUAGE

English

WITH AN ERASMUS+ GRANT

400 €

per participant · VAT included · whole 5-day course

ALL OTHER PARTICIPANTS

490 €

per participant · + VAT 22 % · whole 5-day course



Apply online

robotech.si/erasmus/coding-and-robotics-for-the-youngest-vex-123-and-go-for-ages-4-10

Applications until 18 June 2027. Maximum 16 participants; the course is confirmed 30 days before the start once at least 6 participants have applied. There is no online payment: your organisation receives an invoice.



The course at a glance

Who it is for

Kindergarten teachers, early primary teachers and class teachers (children aged roughly 4–10), teaching assistants, and anyone who wants to bring first coding and robotics activities to the youngest learners.

What you need

No robotics or programming experience is required.

Participants need a working knowledge of English (about B1) and their own laptop or tablet.

After this course you will be able to

- Explain how play-based robotics supports early maths, language, science and social skills.
- Use VEX 123 and VEX GO to run short, safe and engaging coding and building activities with children aged 4 to 10.
- Introduce sequencing, loops, conditions and debugging, first without a screen and then with VEXcode 123 and VEXcode GO.
- Plan cross-curricular lessons and story-based projects, and adapt them for different ages, abilities and special educational needs.
- Observe and assess young learners with simple checklists, photos and portfolios.
- Create a concrete implementation plan for their own kindergarten or school and share practice with colleagues from other European countries.

What we cover

Play-based coding

Sequencing, loops and debugging through play, stories and tangible programming.

VEX 123

The 123 robot, cards, tiles and Coder for children aged 4 to 8, with and without a screen.

VEX GO

Building, simple machines, sensors and block-based coding for ages 6 to 10.

Cross-curricular projects

Stories, measurement and design tasks that link robotics to maths, language and science.

Assessment and inclusion

Observation, portfolios and adapting activities to different ages, abilities and needs.

European exchange

Comparing early years and primary practice with teachers from other countries.

How we teach

The course is learning by doing: roughly two thirds of every day are practical work with VEX 123 and VEX GO kits, in pairs and small international groups, and one third is short input, demonstration and discussion.

Participants first take the role of the child, then the role of the teacher: try an activity, reflect with peers, then plan how to adapt it for their own group. They receive activity cards, example lessons and observation sheets they can use directly, and trainers give individual feedback during practical tasks.

Digital tools: VEXcode 123 and VEXcode GO for programming, and a shared online folder for materials and group work before, during and after the course.

Programme

30 hours of learning activities over 5 days. The programme describes likely activities; the trainers may adjust details to the group.

Monday 19 July 2027

09:00–16:00 (lunch
12:30–13:30)

6 H LEARNING

Welcome, play-based learning and VEX 123

Introductions and tour of RoboTech STEM Center.

Why robots work for the youngest learners: play, curiosity and first steps in sequencing. Hands-on with VEX 123: the robot, the cards and tiles, first coding without a screen and the first challenges in the classroom field.

Tuesday 20 July 2027

09:00–16:00 (lunch
12:30–13:30)

6 H LEARNING

Coding with VEX 123 and VEXcode 123

From tangible coding to screen coding: programming 123 with the Coder, then with the simple block-based environment of VEXcode 123.

Story-based tasks, sequences, loops and debugging; how to plan a 20 to 30 minute robot activity for a group of 4 to 7 year olds, and how to manage the kits in a busy classroom.

Wednesday 21 July 2027

09:00–16:00 (lunch
12:30–13:30)

6 H LEARNING

Building and moving with VEX GO

Building with VEX GO: structures, simple machines and mechanisms with a clear design goal.

First driving and moving tasks, measuring, estimating and comparing; linking the building to maths, science and language objectives for ages 6 to 10.

Thursday 22 July 2027

09:00–16:00 (lunch
12:30–13:30)

6 H LEARNING

Coding and STEM projects with VEXcode GO

Programming GO robots and sensors in VEXcode GO: blocks, loops, conditions and simple data.

Cross-curricular projects: a robot that tells a story, a measurement challenge and a team design task. Adapting the same activity for different ages, abilities and special educational needs.

Friday 23 July 2027

09:00–16:00 (lunch
12:30–13:30)

6 H LEARNING

Assessment, implementation plans and certificates

Observing and assessing young learners: checklists, photos, portfolios and feedback that suits early years and early primary education.

Each participant presents an activity from the week and prepares a personal implementation plan for their kindergarten or school. Evaluation, next steps, plans for future cooperation and certificates.

Your trainers



mag. Oliver Buček

VEX robotics expert, RoboTech STEM Center

mag. Oliver Buček is a Certified VEX Educator, VEX IQ specialist and international conference speaker. He holds a master's degree in Pedagogics, is a Microsoft Innovative Educator, and leads RoboTech STEM Center in Ptuj, Slovenia, where he teaches robotics and STEM and trains teachers to bring VEX IQ into their classrooms.

For twelve years he has coordinated Erasmus+ projects and has completed more than ten that connect schools across Europe. He presents at education conferences in Slovenia and abroad, including in Portugal, Spain, Estonia, Finland and Croatia. Most recently, at the Education Summit 2026 in Guimarães, Portugal, he led two hands-on workshops in April 2026: one on AI vision sensors in VEX IQ and one on introducing the VEX AIR drone in the classroom.

He organises international VEX IQ competitions and mentors students in STEM. In 2024 he received the Inženirska iskra (Engineering Spark) Award for his dedicated mentoring of young people and outstanding promotion of VEX robotics in Slovenia and abroad. Three times he has travelled to the VEX Robotics World Championship in Dallas, USA, as coach and mentor of Slovenian teams.

Oliver believes in learning by doing and uses digital tools to make complex ideas accessible. He leads the course in a practical and supportive style, leaving plenty of room for questions and for exchange between participants.

The training provider

RoboTech STEM Center is a robotics and STEM education centre in Ptuj, Slovenia, run by mag. Oliver Buček. The centre offers robotics courses, holiday camps and workshops for children, and training for teachers and kindergarten teachers. It is a certified VEX robotics centre and a member of EdTech Slovenia.

Teacher workshops in VEX 123, VEX AIM, VEX GO and VEX IQ run regularly for Slovenian schools; this course brings the same practical approach to an international group.

European dimension

The course brings together early years and primary teachers from several European countries. Group work is deliberately mixed by country, and time is reserved to compare curricula and early learning practice and to explore ideas for future Erasmus+ cooperation, such as school partnerships and eTwinning projects. The course supports Erasmus+ priorities of digital transformation, inclusion and quality teaching.

Fee and terms

The fee includes

- Training and teaching materials
- Use of VEX 123 and VEX GO equipment during the course
- Training venue
- Coffee breaks and refreshments
- Certificate of attendance

Not included

- Accommodation
- Lunches and dinners
- Travel to Ptuj and local transport
- Travel and health insurance

Participants funded by Erasmus+ pay the Erasmus+ course-fee flat rate of **400 €** per person, VAT included for the whole 5-day course. Other participants pay **490 €** + 22 % VAT per person.

How to apply

1 • Apply

Send the online form by 18 June 2027.
We reply within a few working days.

2 • We confirm

30 days before the start, once at least 6 participants are in.

3 • Invoice

Your organisation receives an invoice.
There is no online payment.

Application and selection

Places are allocated in the order in which complete applications are received (first come, first served). There is no separate selection test. We confirm receipt of your application by e-mail and reply within a few working days. When all places are taken, applications close automatically.

The course is confirmed 30 days before the start, once at least 6 participants have applied. Until then you can cancel free of charge.

Cancellation and changes

Cancellation by you: you can cancel free of charge until the course is confirmed, 30 days before the start. After confirmation we send an invoice. Your organisation can replace a participant free of charge if we are informed in advance.

Changes by us: if the fee, content, dates, location or schedule change significantly, you can cancel at no extra cost with reasonable notice.

If the course does not take place (for example, because the minimum number of participants is not reached) we inform you at the latest 30 days before the start and you pay nothing; any fee already paid is refunded in full.

Force majeure: in case of events beyond anyone's control, such as natural disasters or serious transport disruption, we agree on a new date or refund the fee for the part of the course that did not take place. Travel costs are covered by your own travel insurance.

Preparation before the course

About four weeks before the course we send practical information, a short questionnaire about your experience and goals, and instructions to open VEXcode 123 and VEXcode GO on your device. Please bring your own laptop or tablet and charger.

Practical information

Venue and access

RoboTech STEM Center, Čučkova ulica 5, 2250 Ptuj, Slovenia. Free parking is available in front of the centre. Ptuj is about 1.5 h by car from Ljubljana and 1.5–2 h from Zagreb and Graz. Participants arrange their own accommodation and travel; Ptuj has a range of hotels and guesthouses, and we are happy to answer practical questions. The centre is accessible to participants with reduced mobility: there is a lift to the training room and a toilet at the centre. Please tell us in the application form about any further needs so that we can prepare the venue and the programme.

Contact

Oliver Buček, course leader

+386 70 390 664

info@robotech.si

RoboTech STEM Center

Čučkova ulica 5, 2250 Ptuj, Slovenia

Inclusion

The course is open to all teachers without discrimination. We adapt activities and materials to participants with special educational needs, as well as dietary and other requirements. Please tell us what you need in the application form.

Certificate

Every participant receives a certificate of attendance with their name, a short description of the course and its learning outcomes, dates, venue, the name of the training provider and of the trainer. The learning outcomes are written so that the certificate can be used together with Europass.

After the course

On the last day each participant prepares a personal implementation plan for their kindergarten or school. After the course you keep access to the shared materials and receive suggestions for next steps, such as extra activity ideas, ways to start a robotics corner and ways to present the course to colleagues.

Support, feedback and complaints

Before, during and after the course you can reach us at info@robotech.si; we answer within two working days. At the end of the course every participant fills in an anonymous evaluation form, and we use the results to improve the next course.

Complaints: write to info@robotech.si. We confirm receipt within three working days and answer within 14 days. Complaints are handled fairly and with respect, and the answer explains what we will change.

About Ptuj

Ptuj is the oldest recorded town in Slovenia. It lies on the river Drava in the north-east of the country, in a wine-growing region close to the Croatian border. The Romans founded Poetovio here, and the old town still has a medieval character: narrow streets, a castle above the river and a compact historic centre that is easy to explore on foot.

Worth seeing in the evenings and between sessions: Ptuj Castle with its museum collections, the Orpheus Monument, the town tower and the main square, the Dominican monastery, and the Ptuj wine cellar, one of the oldest in Slovenia. Local food and wine from the Haloze and Slovenske gorice hills are a good reason to stay for dinner. Ptuj is also known for Kurentovanje, its traditional carnival, which takes place in February.

Getting here: Ptuj has a railway station and a bus station within walking distance of the centre. Maribor is about 30 km away, Graz about 100 km, Zagreb about 100 km and Ljubljana about 130 km. The nearest international airports are Graz, Zagreb and Ljubljana. We are happy to help with directions and with choosing accommodation.



Photo: Marcin Gierszner (Yonashek), Wikimedia Commons, CC BY-SA 3.0



Photo: Mstegar, Wikimedia Commons, CC BY-SA 4.0

Brochure generated 14 October 2026 from the current course page (<https://robotech.si/erasmus/coding-and-robotics-for-the-youngest-vex-123-and-go-for-ages-4-10>). The course is eligible for Erasmus+ KA1 funding; it is not accredited or endorsed by the European Commission or a National Agency.