

ERASMUS+ KA1 · COURSE FOR SCHOOL EDUCATION STAFF

VEX IQ Robotics for Teachers: Hands-on STEM Course in Ptuj

A five-day, hands-on course for primary and lower-secondary teachers: build and program VEX IQ robots, explore AI vision, and bring challenge-based STEM learning back to your school.

DATES	VENUE	DURATION	LANGUAGE
26–30 April 2027	RoboTech STEM Center, Čučkova ulica 5, 2250 Ptuj, Slovenia	5 days · 28 hours	English

COURSE FEE

400 €

per participant · whole 5-day course

Apply online

Open the application form →

Applications until 26 March 2027. Maximum 16 participants; the course is confirmed as soon as at least 6 participants have applied, and at the latest 60 days before the start. There is no online payment: your organisation receives an invoice.

RoboTech, mag. Oliver Buček · Erasmus+ Organisation ID E10436304 · info@robotech.si · +386 70 390 664

The course at a glance

Who it is for

Teachers of primary and lower-secondary schools (roughly ages 8–14), STEM, technology and computing teachers, and teachers who want to start or lead a school robotics club.

What you need

No robotics or programming experience is required. Participants need a working knowledge of English (about B1) and their own laptop.

After this course you will be able to

- Build and program VEX IQ robots and guide students through the same steps.
- Use sensors, including the AI vision sensor, to design simple autonomous behaviours.
- Plan robotics lessons that support maths, science, technology and computing objectives.
- Apply challenge-based and collaborative learning methods and assess student work fairly.
- Set up and run a school robotics club and prepare students for friendly competitions.
- Create a concrete implementation plan for their own school and share practice with colleagues from other European countries.

What we cover

VEX IQ in the classroom

The VEX IQ system, building techniques and classroom management with robot kits.

Coding and sensors

From block-based programming to text-based coding in VEXcode IQ, and working with sensors.

AI vision and computational thinking

Introducing AI concepts through the VEX AI vision sensor and age-appropriate activities.

Challenge-based, cross-curricular learning

Designing projects, rubrics and assessment that connect robotics to school subjects.

Teamwork and robotics clubs

Competition formats, team roles, and how to organise a robotics club in your school.

European exchange

Comparing curricula and school practice with teachers from other countries and planning future cooperation.

How we teach

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

Each block follows the same cycle: try it yourself, reflect with peers, then plan how to adapt it for your own students. Participants receive worksheets, example lessons and project ideas they can use directly, and trainers give individual feedback during practical tasks.

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

Programme

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

Monday 26 April 2027

09:00–16:00 (lunch 12:30–13:30)

6 H LEARNING

Welcome and VEX IQ foundations

Introductions and tour of RoboTech STEM Center.

The VEX IQ system, building a classroom robot, first driving tasks and team challenges.

Tuesday 27 April 2027

09:00–13:00 learning session; 14:00–16:00 guided visit of Ptuj

4 H LEARNING

Cultural day: Ptuj and Slovenian schools

Public holiday in Slovenia.

Morning learning session: robotics and STEM in the Slovenian and other European curricula, and a guided visit of the historic town of Ptuj with informal networking.

Wednesday 28 April 2027

09:00–16:00 (lunch 12:30–13:30)

6 H LEARNING

Programming and sensors

Block-based programming and a first step into text-based coding in VEXcode IQ.

Working with sensors; solving navigation and measurement problems.

Thursday 29 April 2027

09:00–16:00 (lunch 12:30–13:30)

6 H LEARNING

AI vision and challenge-based learning

Hands-on activities with the AI vision sensor.

Designing cross-curricular lessons, rubrics and assessment, and adapting activities for different ages and abilities.

Friday 30 April 2027

09:00–16:00 (lunch 12:30–13:30)

6 H LEARNING

Competitions, implementation and certificates

VEX IQ competition formats and a friendly mini-tournament.

Personal implementation plans for your school, next steps, feedback 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 teachers from several European countries. Group work is deliberately mixed by country, and time is reserved to compare school systems, share practice and 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 IQ equipment during the course
- Training venue
- Coffee breaks and refreshments
- Cultural programme on Tuesday (guided visit of Ptuj)
- Certificate of attendance

Not included

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

Fee: €400 per participant (5-day course). EU schools and organisations with a valid VAT ID: reverse charge applies pursuant to Article 44 of EU VAT Directive 2006/112/EC (0% VAT); the amount is €400. Individuals and organisations without a VAT ID: the €400 includes 22% Slovenian VAT.

How to apply

1 · Apply
Send the online form by 26 March 2027. We reply within a few working days.

2 · We confirm
As soon as at least 6 participants are in, and at the latest 60 days before the start.

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 marked "Confirmed" as soon as at least 6 participants have applied, and at the latest 60 days before the start, so you can book travel and accommodation with confidence. You can cancel free of charge until 60 days before the start.

Cancellation and changes

Cancellation by you: you can cancel free of charge until 60 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 60 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 install VEXcode IQ on your laptop (Windows, macOS or Chromebook). Please bring your own laptop 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 school. After the course you keep access to the shared materials and receive suggestions for next steps, such as extra online resources, robotics clubs and competitions you can join, and ideas for presenting the course to colleagues at your school.

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.



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Brochure generated 2 November 2026 from the current course page (https://robotech.si/erasmus/vex-iq-robotics-for-teachers-hands-on-stem-course-in-ptuj). The course is eligible for Erasmus+ KA1 funding; it is not accredited or endorsed by the European Commission or a National Agency.