



Mediterranean East Europe STEM Development

Mediterranean Source of Life & Culture

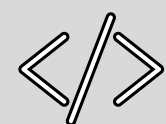


ROES

Heraclitus of Ephesus, a pre-Socratic Greek philosopher, was most famous for his insistence on ever-present change, or flux or becoming, as the characteristic feature of the world, as stated in the famous saying, "No man ever steps in the same river twice" as well as "Panta rhei", everything flows.

So this is where the acronym ROES relies, since the greek word roes means exactly this: the flows (streams, protoka, pototsi, potoci, fluxuri, teče).

RObotics
European
Society

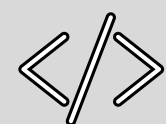


ROES

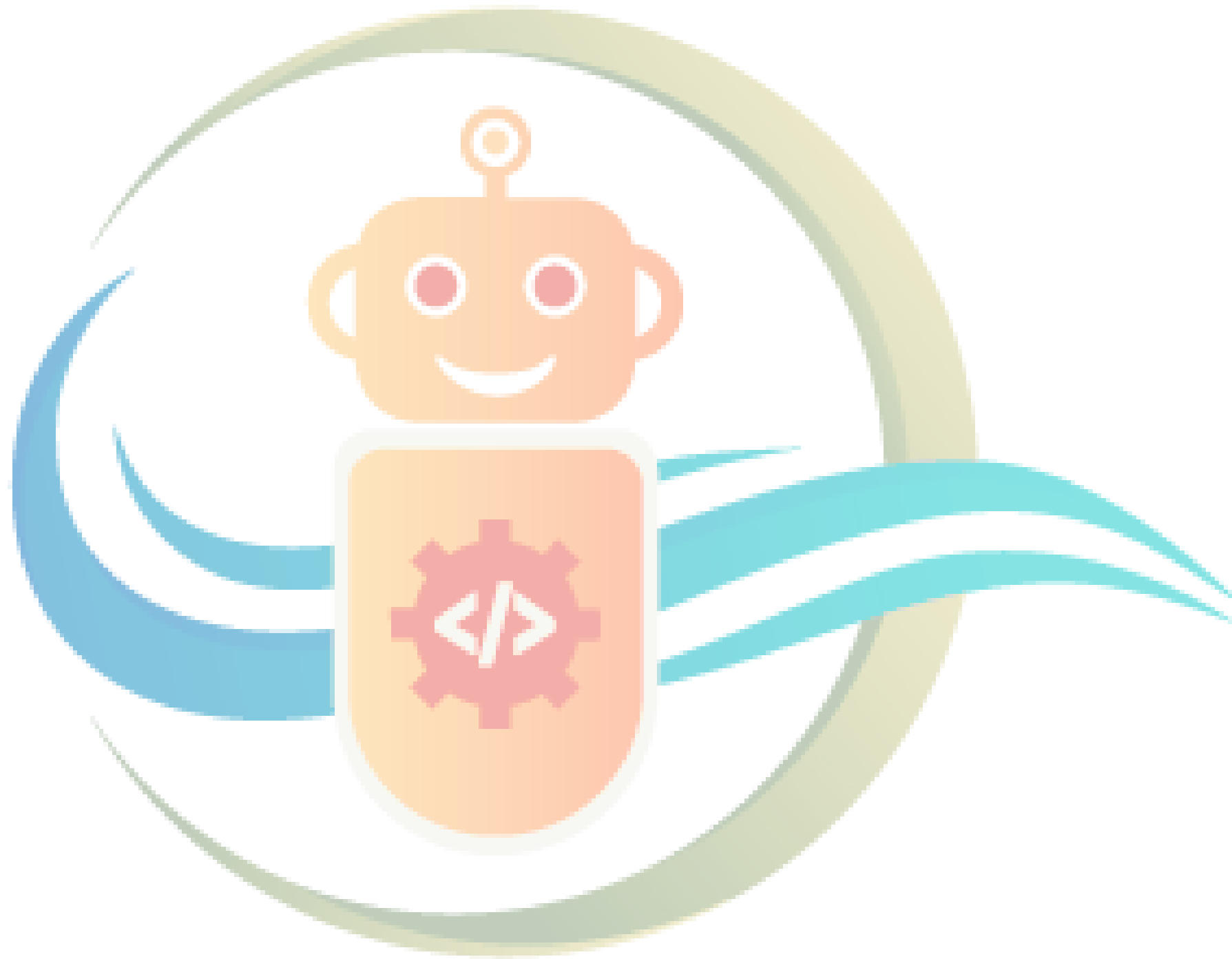
A non-profit Organization

RoeS is a non-profit organization. All revenue from sponsorships and fees is invested in support of our mission, which is to promote STEM education worldwide.

Aims are to bring together young people all over the world to develop their creativity and problem solving skills. We do that by organizing challenging and educational contests based on STEM Methodology.

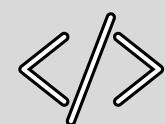


ROES



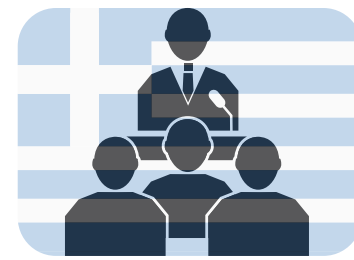
RoeS is dedicated to:

- Offer young people the opportunity to expand their horizons through exploration science Laws
- Widen the view of young people and encourage them to be our future scientists, engineers, makers and inventors.
- Help young people acquire 21st century skills like creative thinking, cooperation and confidence.
- Help introduce the concept of modern science into educational activities.
- Promote STEM in education worldwide as the sole way to deeper Knowledge.
- Bring together young people from all over the world to measure their skills and have fun at our annual international final.



ROES

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A brief history of WRO Hellas



It all began with a mission: to bring robotics into Greek education and motivate the following generation of engineers and inventors.

The community was formed in 2007 by a group of friends, affiliates, and enthusiasts who are passionate about robotics and education. Even at its earliest stages, it was a panhellenic organisation that included academics, school counsellors, teachers, and parents.

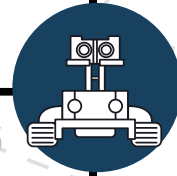
They all came together to form a supportive network focused on promoting robotics and education within their community.



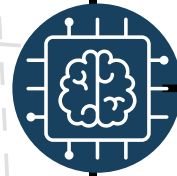
A brief history of WRO Hellas

The inaugural national robotics competition was held in 2009, preparing Greek teams for the World Robot Olympiad, the pioneer of educational robotics competitions worldwide.

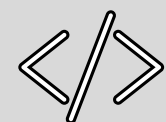
2009



2010



The second competition took place the following year, with a more than 50% increase in participants.



A brief history of WRO Hellas

Due to the contest's rising popularity, the educators needed additional assistance when working with robotics. That's why, in 2011, 13 WRO centres were established in thirteen different municipalities.

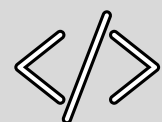
2011



2011



The first WRO social media platform was launched the same year, aiming to foster collaboration and knowledge sharing among educators in the field of robotics.



A brief history of WRO Hellas

In the years that follow:

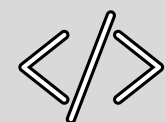
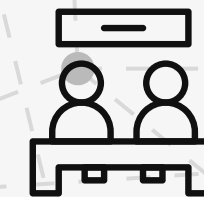
More than 900 schools nationwide have been equipped with educational robotic equipment.

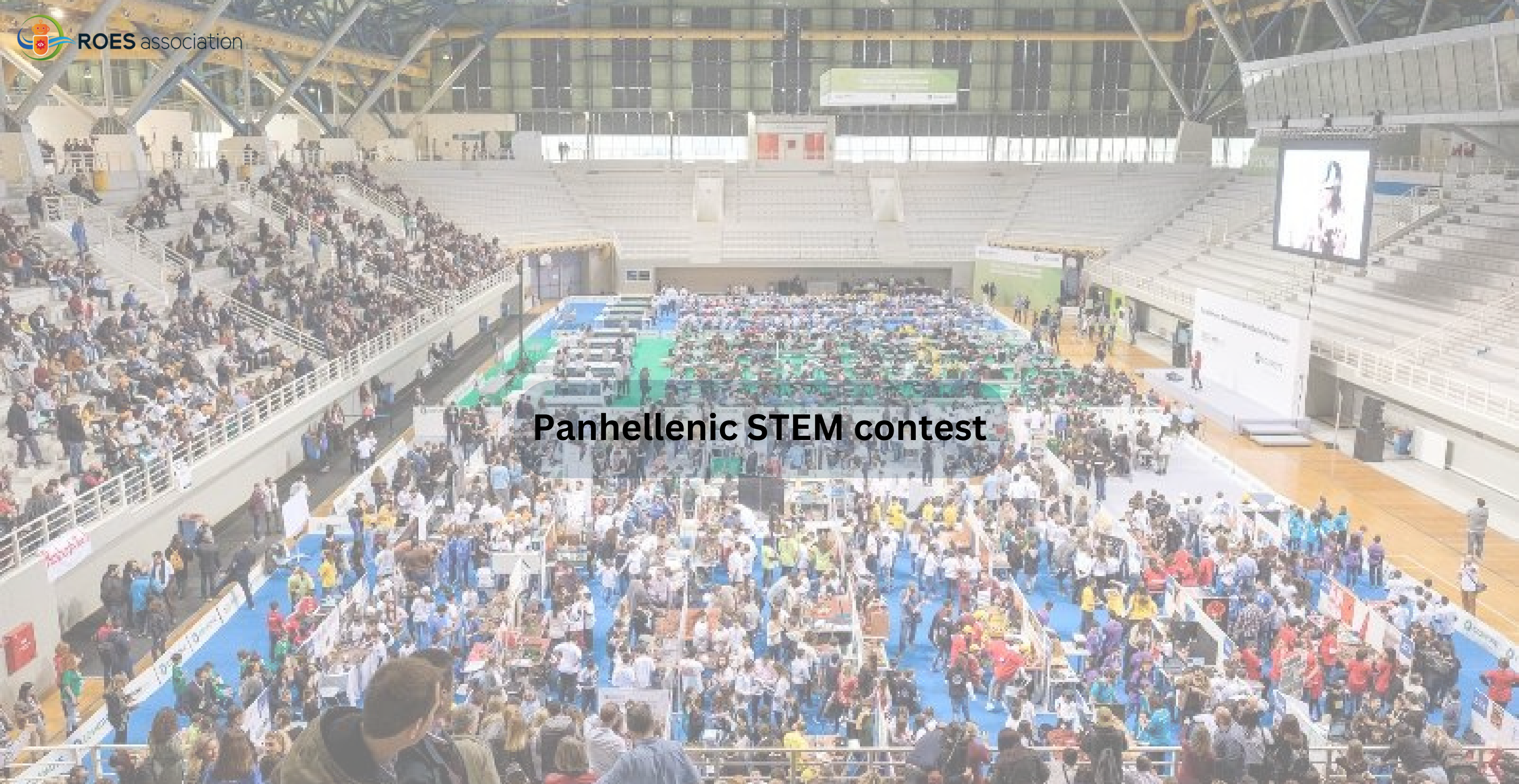


Over 2,400 teachers have received free, practical robotics training.

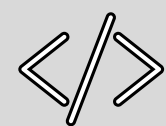


At the WRO Hellas competitions, more than 8,800 Greek students took part.





Panhellenic STEM contest



Panhellenic STEM Contest

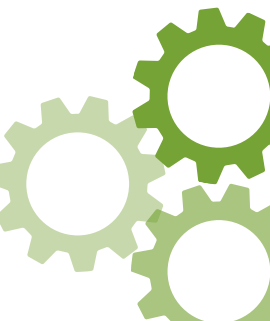
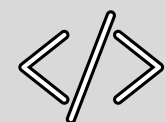


In 2015, STEM education took the lead in organising the Panhellenic STEM Contest.



It was exclusively for elementary school children, aged 8–12. The competition was held in the context of the wider effort to spread the new educational method, STEM (Science, Technology, Engineering, Mathematics) and its inclusion in the teaching and education system for students in Greece.

The success of this first tournament led to establishment of the Panhellenic STEM Competition between our national schools.



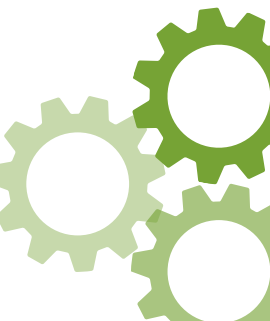
Panhellenic STEM contest



Today, the competition offers nine different categories for children of all ages.

It is also conducted in every Greek region, and participation is completely free of charge.

Each year 1200 students come to the competition's finals, not only to compete but to come into contact with new people, ideas, and technologies.



Panhellenic STEM contest

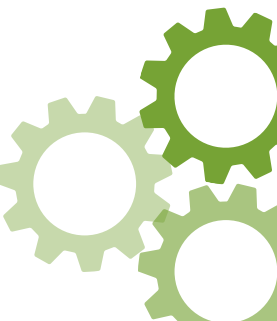
1.272 schools took advantage of



4.800 teachers participated



23.000 student took advantage of



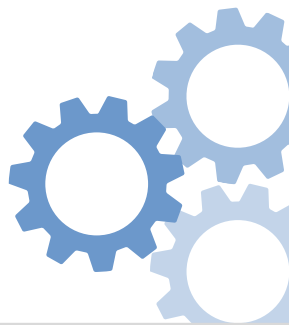
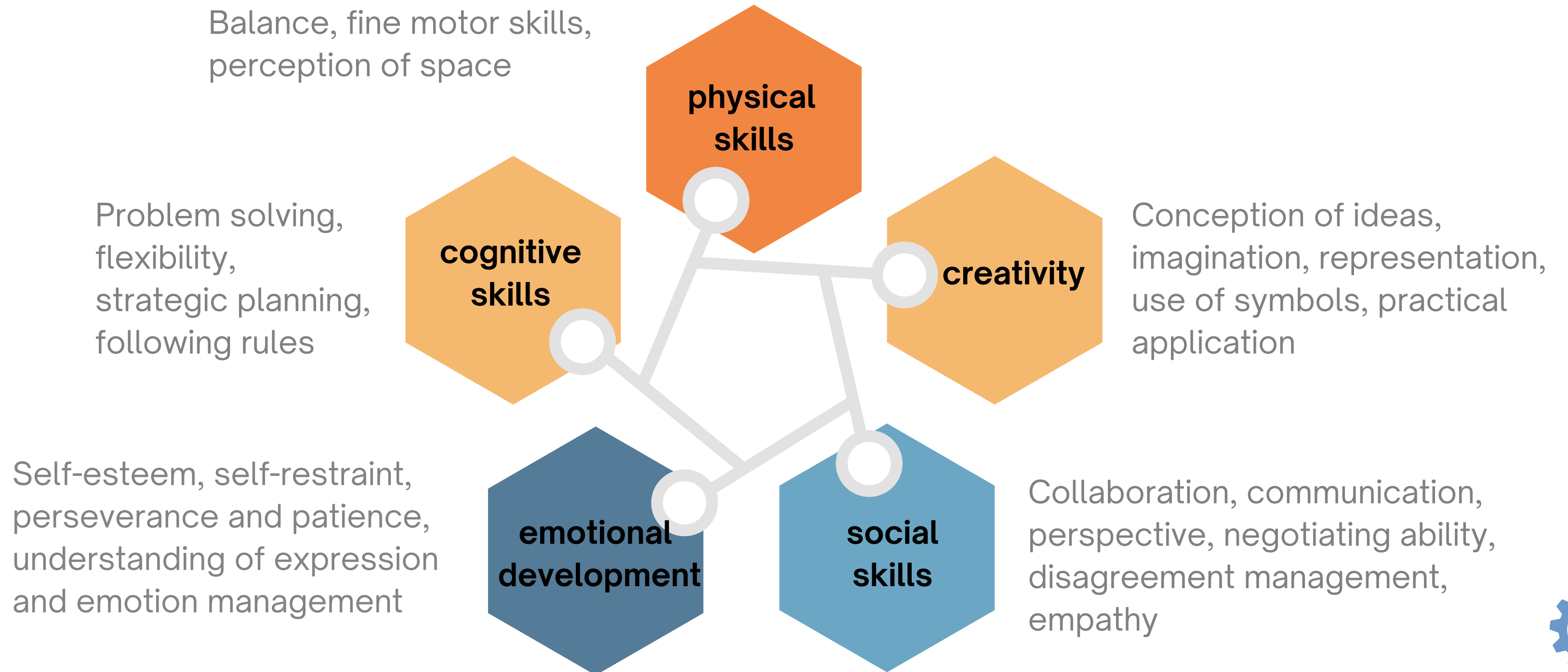
Πως ξεκινάμε...



Our philosophy & method



Our philosophy: Holistic approach to education

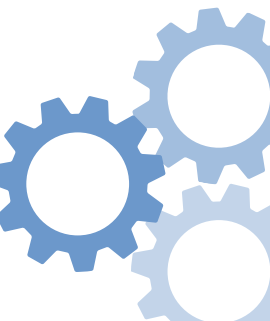


Our philosophy:

Complying with NGSS & global trends/needs



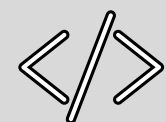
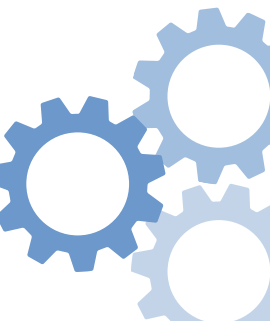
- Identifying issues and posing questions
- Asking questions and describing problems based on prior experiences,
- progressing to simple questions of description
Model creation and application
- Create a model using elements that depict a suggested object or tool. (diagram, drawing, etc.)
- Reproduction in physical form (diorama, dramatization, or storyboard)
- Analysing and Interpreting Data
- Analyse test results for a tool or object to see if it performs as intended.



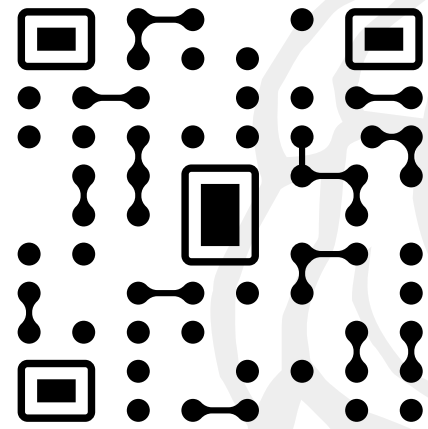
Our philosophy: Complying with NGSS & global trends/needs

Top 10 skills for 2025 according to the World Economic Forum:

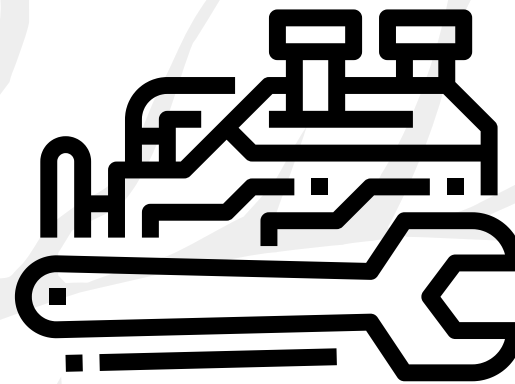
- Complex Problem Solving
- Critical Thinking
- Creativity
- People Management
- Coordinating with Others
- Emotional Intelligence
- Judgment and Decision Making
- Service Orientation
- Negotiation
- Cognitive Flexibility



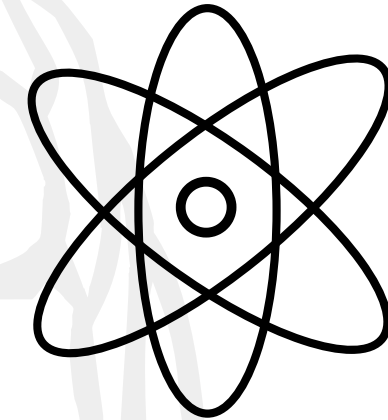
Our philosophy: learning pathways



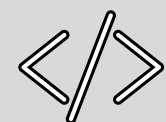
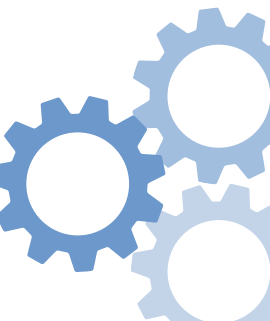
Coding



engineering



science



Our method:

From skills building to structured curriculum to real-life projects

Skills Building

Support both teachers and students with introductory, hands-on training, lesson plans & guides.

Students and teachers are motivated to engage with our curriculum

Trainings & Structured curriculum

Achieve the cultivation of STEM way of thinking through a complete curriculum, so that skills are acquired in a structured way.

Robotics contests on real-life projects

Students apply their acquired skills on projects that give solutions to real-life problems.
Acquired skills are applied and evaluated, teamwork is promoted, engineer thinking and problem solving are explored in a hands-on way.

Student teams get feedback and motivation to try again



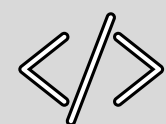
Our method:

From skills building to structured curriculum to real-life projects

Contests provide an exciting way for students to put their newly acquired skills to use, receive feedback, and inspire one another.



Our contests are project-based, with the goal of assisting students in making the connection between school and real life and responding to real problems in a sustainable, entrepreneurial, and feasible manner.



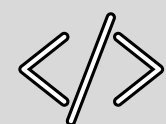
Our method:

From skills building to structured curriculum to real-life projects



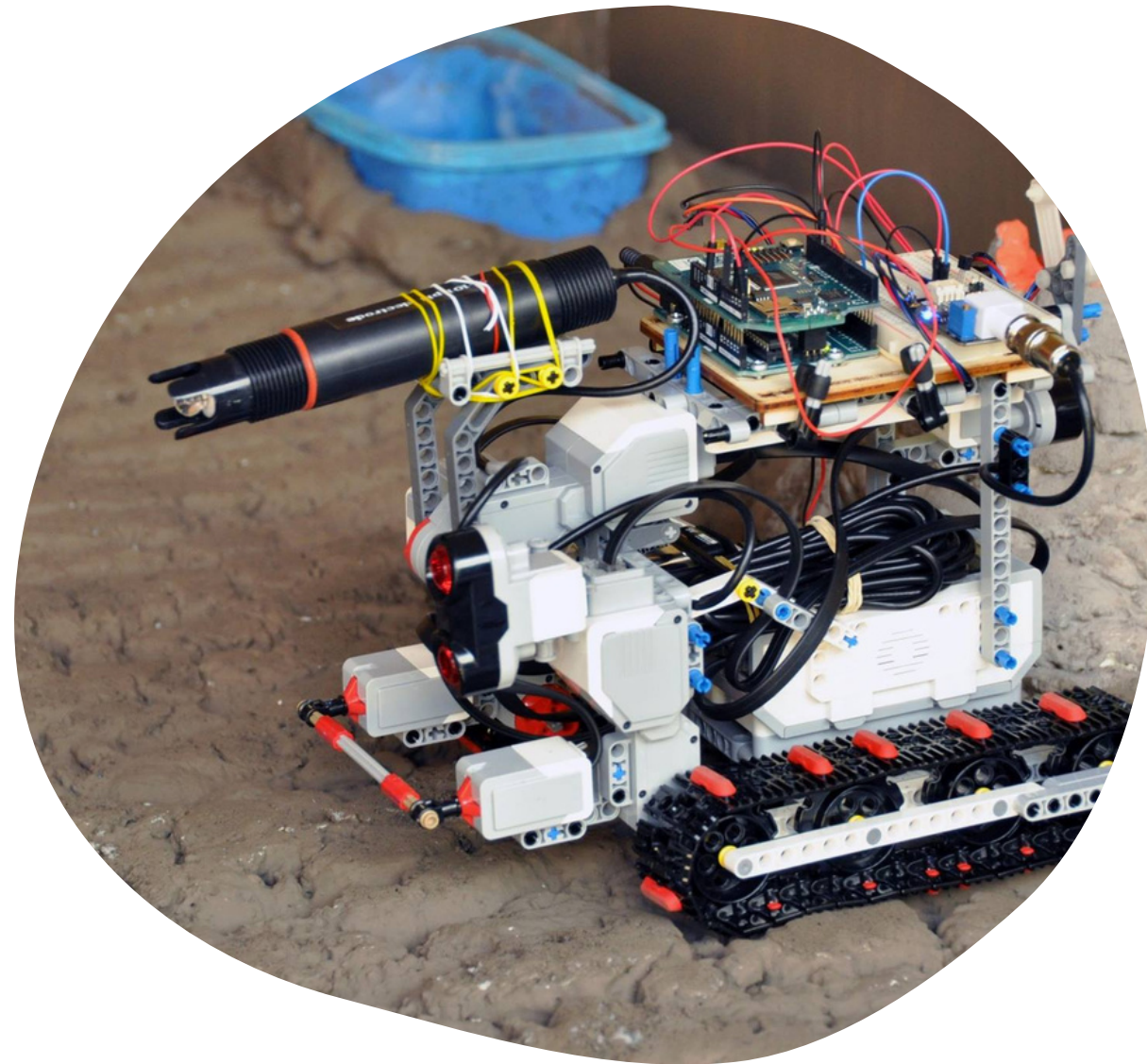
The contests follow a strict pedagogical culture, so the following are assured:

- All teams work on the same theme,
- follow the same rules, and
- use the same infrastructure.



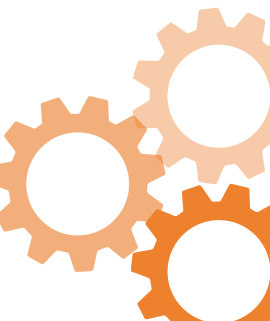
Our method:

From skills building to structured curriculum to real-life projects



True engineering thinking is cultivated in this manner since results must be met within certain parameters. Projects are graded based on their concept, the students' ability to articulate and support that notion, and the programming and building skills applied.

Teams must present projects with automated steps, students must answer questions independently.





Mediterranean Source of Life & Culture

STRATEGIC PARTNER: COSMOTE

ORGANIZER: STEM education

SPONSOR: Knowledge Research



Mediterranean: Source of Life and Culture

Mediterranean: Source of Life and Culture

We are proposing a pilot competition to take place this year, where Elementary students, with the help of a mentor, will build their own robots and mechanisms with the robotics kit.

The whole creating process involves children in practical, active, teamwork, helping them to gain knowledge and linguistic skills through asking questions, looking for patterns, choosing strategies, and drawing conclusions.



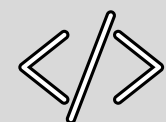
Mediterranean: Source of Life and Culture



Our proposed topic for the Competition is:
Mediterranean: Source of Life and Culture.

The main focus is the students to organize teams (Teamwork) and also to take confidence through Knowledge.

Also to act as Engineers and that the project they have developed is in the direction of problem solving.

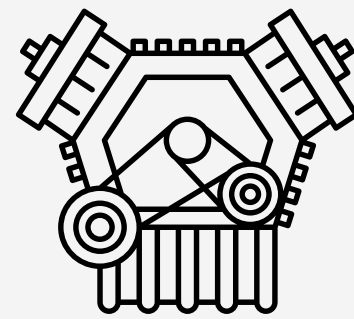


Mediterranean: Source of Life and Culture

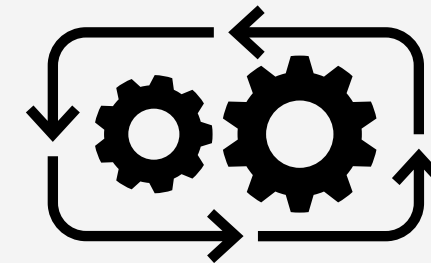
The competition will consist of the following categories:



Football



Power Engineers

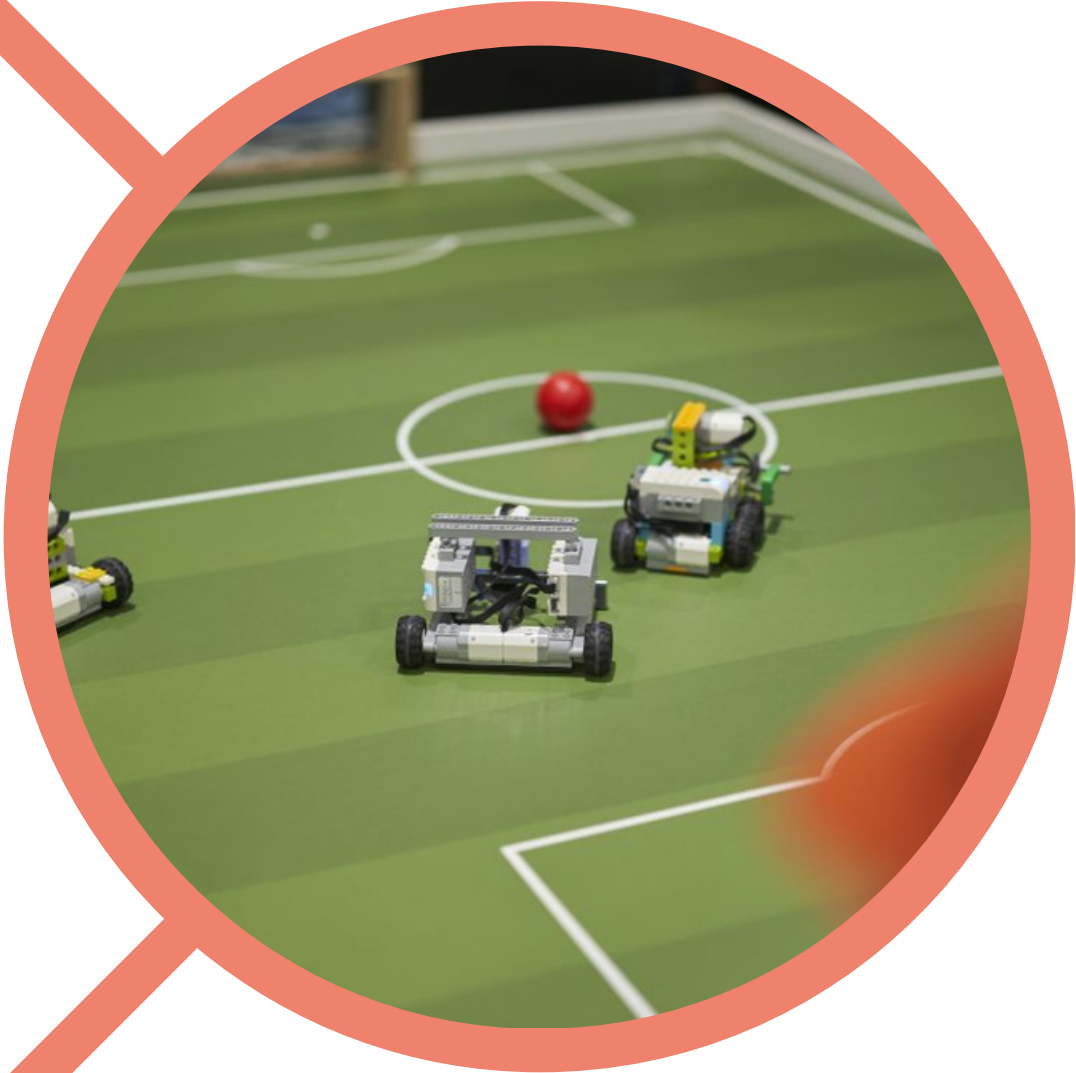


Automation Engineers





Mediterranean: Source of Life and Culture



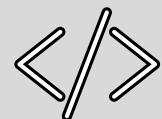
Football 

For ages 6-10

Teams of 2-3 students

Students with the help of a teacher will build a remote controlled football player and participate in a football game. Students who do not know each other form a team.

Competing as a team highlights the importance of cooperation





Mediterranean: Source of Life and Culture



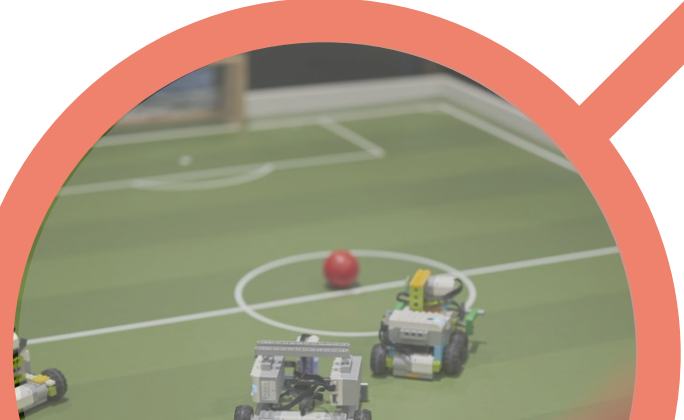
Power Engineers

For ages 6-10

Teams of 6-10 students

Students with the help of a teacher make a project with materials of their choice and with the kit they will make mechanisms. They will try to solve a problem related to the theme of the competition. They will present their projects as problem solving.

Key points:
What is Energy,
Control the
movement using
switch.





Mediterranean: Source of Life and Culture

Automation Engineers 

For ages 9-12

Teams of 6-10 students

Students with the help of a teacher make a project with materials of their choice. They will make mechanisms that will try to solve a problem related to the theme of the competition. They will replace the switch and instead of themselves, they will use sensors and programming to control the motor movement.

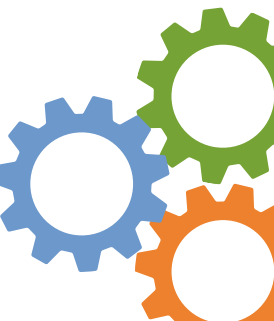
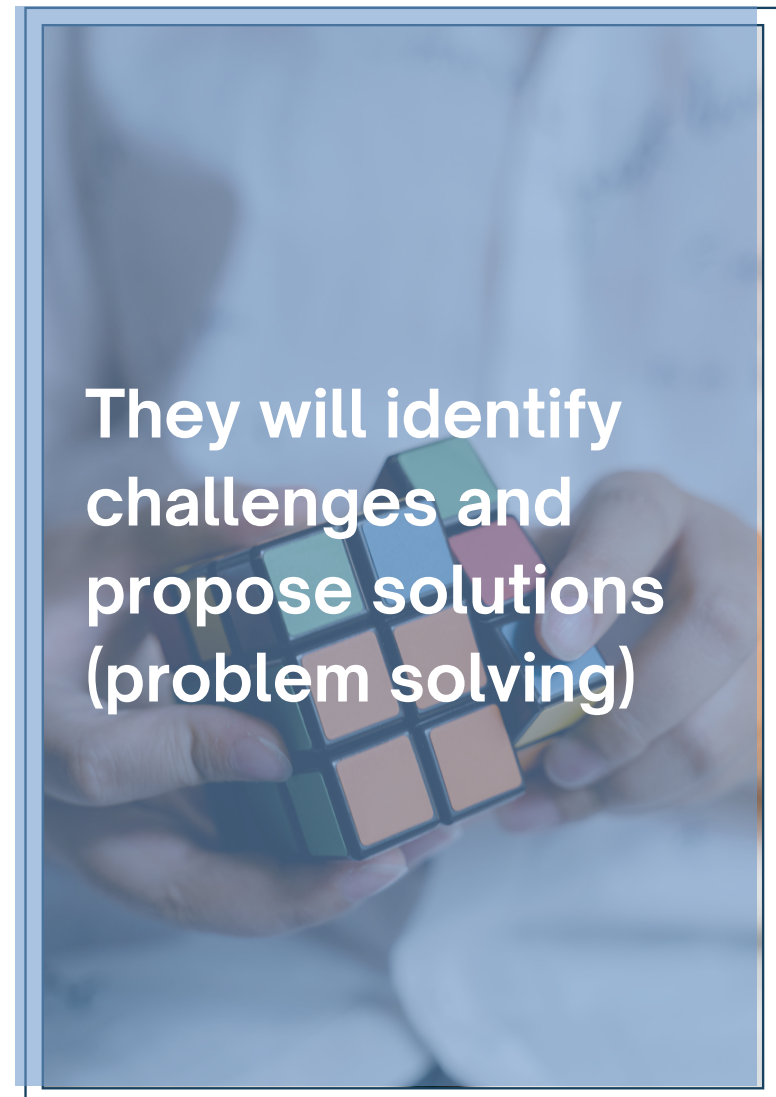
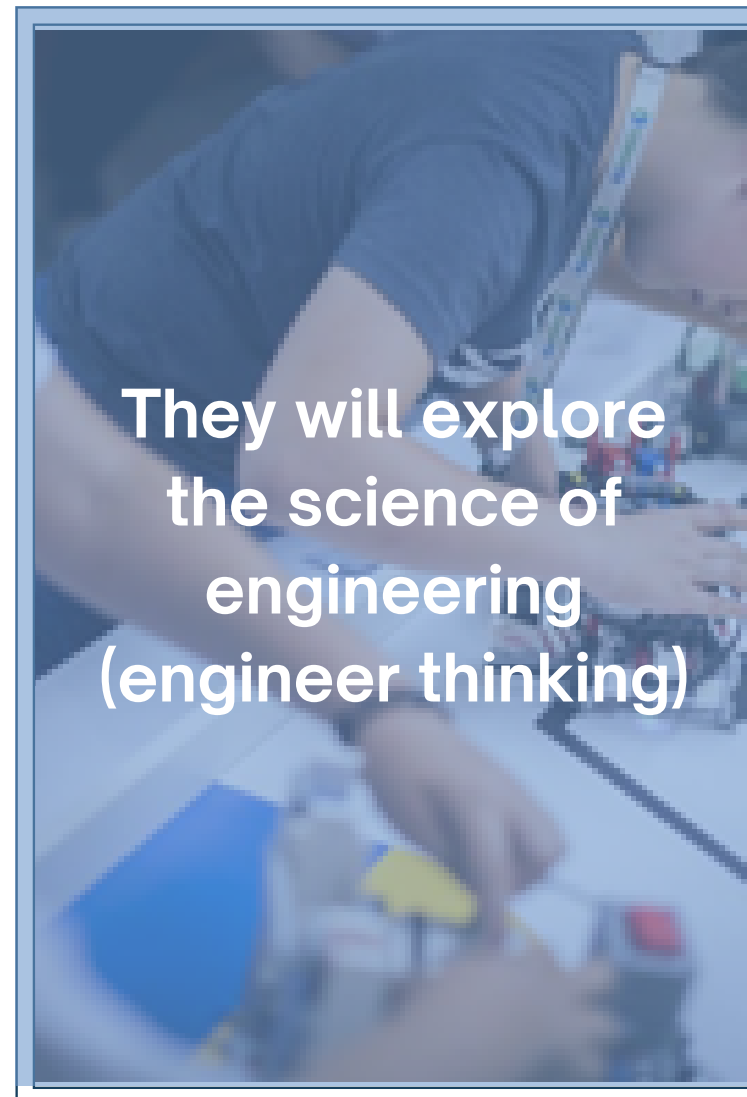
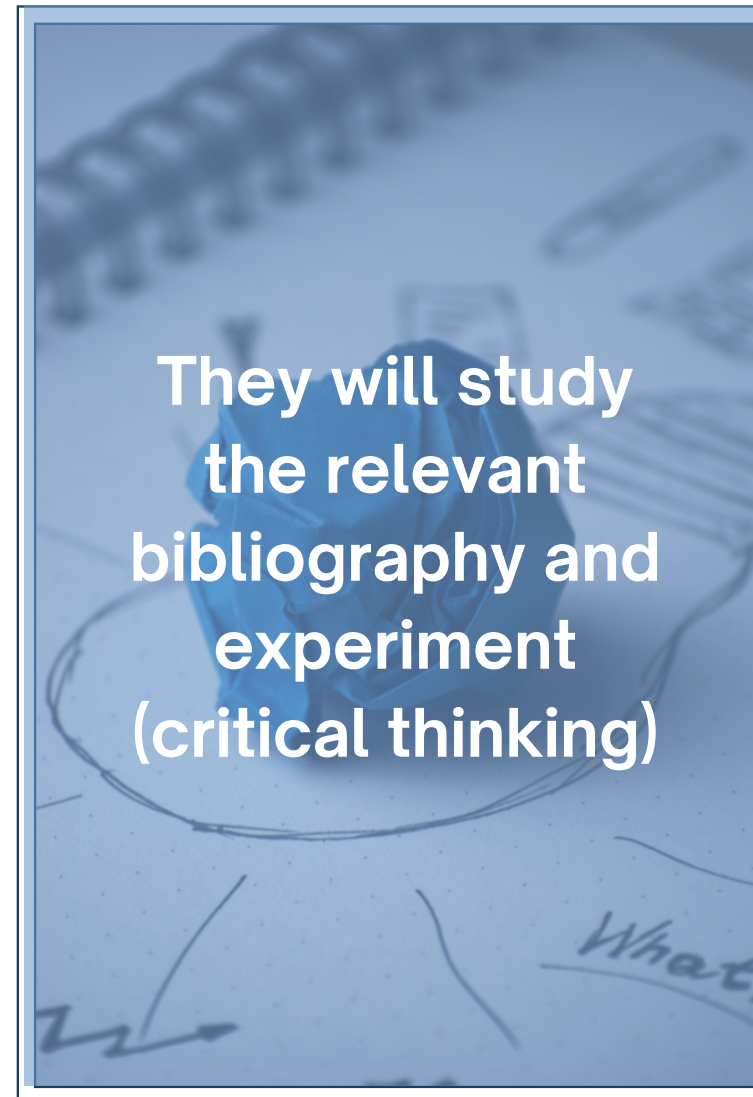


Using the micro:bit board will collect data as a Physics scientist and a web camera to recognize barcodes or colors to control the motor movement.



Mediterranean: Source of Life and Culture

During their preparation for the competition, the students, with the guidance of their teachers-coaches:



Mediterranean: Source of Life and Culture

Progress through the Competition

Students form teams



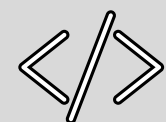
Students learn more about industry resources through the subject

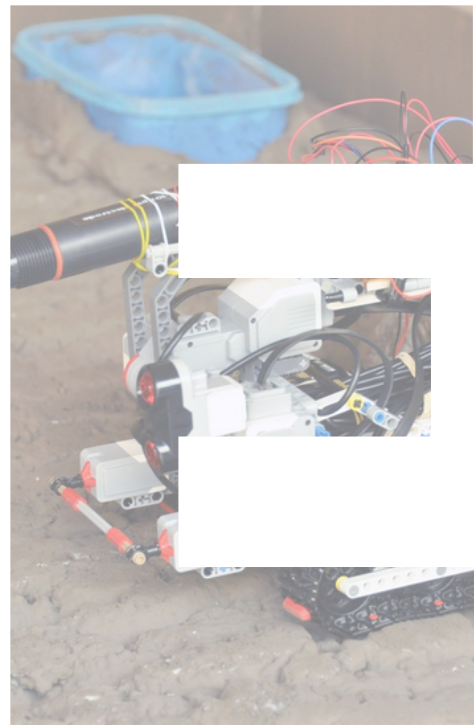
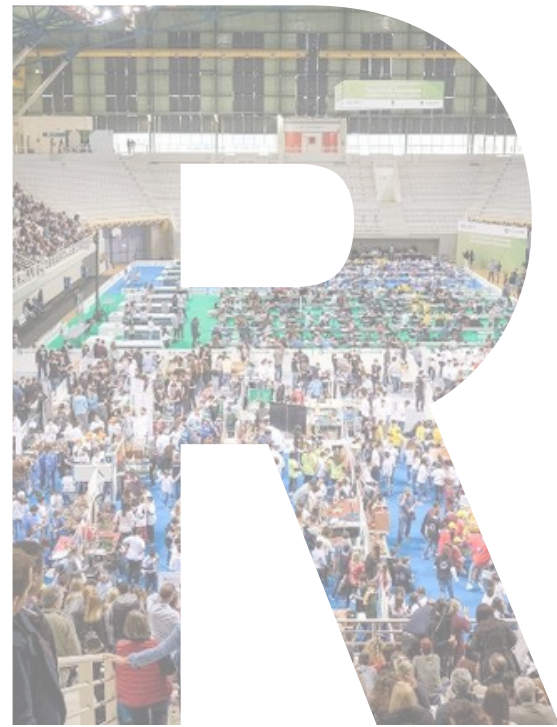


Students create group projects



We support teachers with free webinars





Thank You