

CREATE
THE
FUTURE

FIRST® LEGO® League



Cyprus Computer Society



- ▶ Non-profit Professional Association of Graduates in ICT related fields
- ▶ Established in 1984 and numbers more than 1200 members
- ▶ Links Academia - Government - ICT Industry
- ▶ Main Scope
 - ❑ Development of high standards of practice amongst ICT Professionals
 - ❑ Promotion of the Digital Cyprus Agenda
 - ✓ e-everywhere and digital transformation
 - ✓ Digital literacy and inclusion for the citizens
 - ✓ Digital exploitation by SMEs
 - ✓ Current and relevant skills for ICT professionals
 - ✓ Education, R&D

***FIRST*[®] & LEGO[®] Education: A 24 Year Cooperation!**

FIRST[®] and LEGO[®] Education joined forces in 1998 as pioneers in experiential learning, robotics and STEM education to create the FIRST[®] LEGO[®] League.

FIRST LEGO League combines the world-famous LEGO[®] bricks with programming software in a unique 21st century teamwork and skill-building experience designed to create experiential learning.

Through local, regional and international events, the FIRST community celebrates the achievements of participants.

MASTERPIECESM

Why choose **FIRST[®] LEGO[®] LEAGUE?**



DISCOVER



EXPLORE



CHALLENGE



DISCOVER



EXPLORE



CHALLENGE

FIRST[®] LEGO[®] LEAGUE

- FIRST[®] LEGO[®] League is an event in which more than 110 countries around the world participate!
- FIRST[®] LEGO[®] League is a program that introduces science, technology, engineering and mathematics (STEM) to children aged 4-16 through fun, engaging, hands-on learning.
- FIRST[®] LEGO[®] League participants gain real-world problem-solving experience through a guided, global robotics program, helping today's students and educators build a better future together.

Watch the video [here](#)

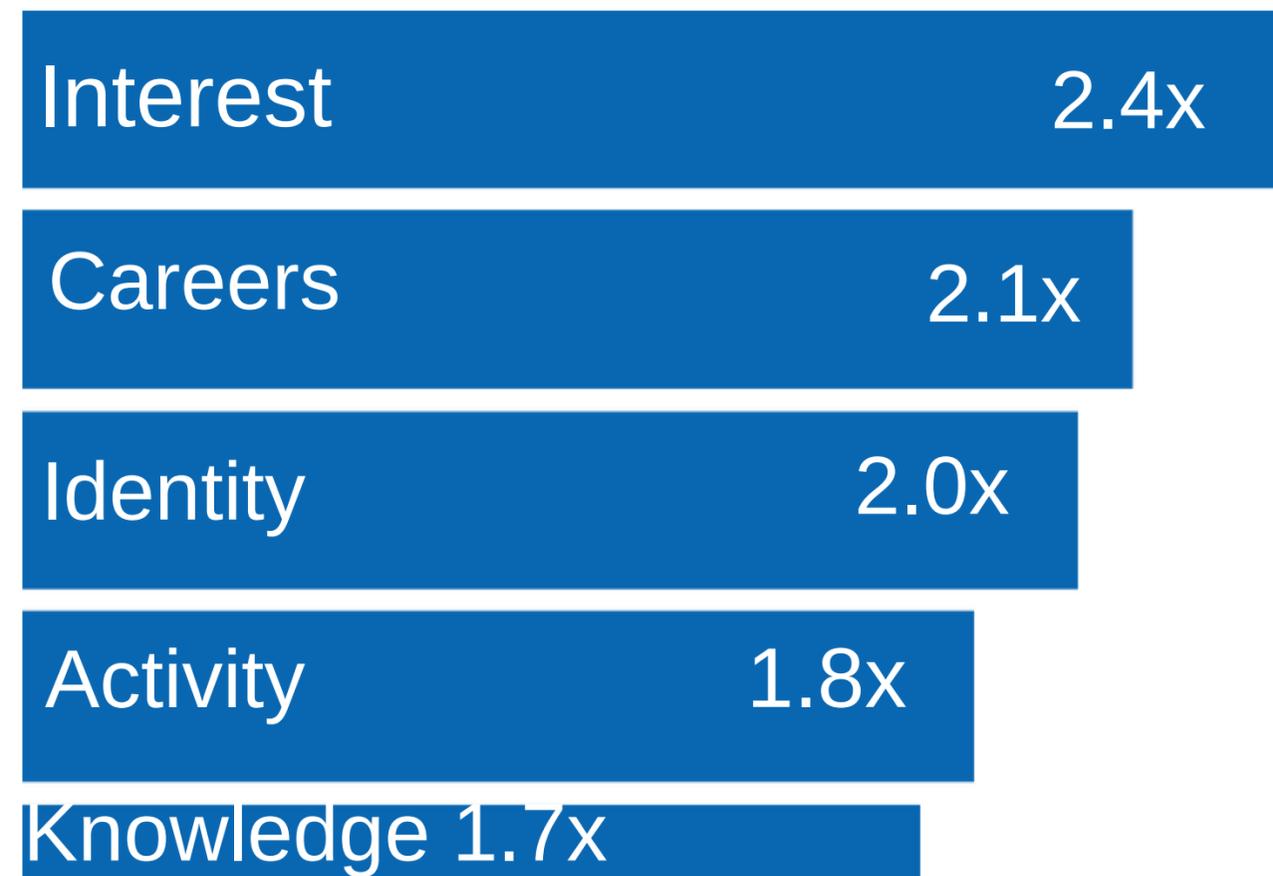
Student Impact



FIRST promotes the development of holistic skills!

- **Cognitive** - decision making, subject knowledge (math, science), logic, problem solving
- **Physical** – fine and gross mobility, balance, spatial skills
- **Creative** (Creative and critical thinking) - divergent thinking, inventiveness
- **Emotional** - confidence, engagement, motivation, self-efficacy, persistence
- **Social** - collaboration, communication, interpersonal and social connections

At 72 months, **FIRST students** are significantly more likely to show advanced results in STEM skills than other students.



FIRST[®] IN SHOWSM

PRESENTED BY **Qualcomm**

The thematic of the new season

Science, Technology, Engineering and Mathematics (STEM) inspire big ideas, immediate action - and creativity.

Is it possible to create ART through technology and science?

In the 2023-24 season we shine a light on the role of STEM in the arts and encourage young innovators to design and build a world of endless possibilities

2023 - 2024 SEASON

Watch video [here](#)



Watch the vide [here](#)



FIRST® LEGO® League Cyprus

**Robotics, Research & Innovation Competition
for Children 4-6 years old!**

**Nicosia, 6-7 April 2024
European University of Cyprus**



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CHALLENGE

A Cooperation between not-for-profit Organizations



ICT Professional Association



Organizer of First® Lego® League Greece



FIRST LEGO League Programmes & Equipment

Discover



Explore



Challenge



MASTERPIECESM

FIRST[®] LEGO[®] League
Discover



DISCOVER

FIRST® LEGO® League Discover



EXPLORE

WONDER

DISCOVER

For children ages 4-6, this play-filled introductory STEM program engages their natural curiosity and builds learning habits with hands-on activities in the classroom and at home using LEGO® DUPLO® bricks.

NO TECHNICAL KNOWLEDGE REQUIRED!

IDEAL FOR FACILITIES NEW TO STEM!

BENEFITS

- Getting to learn STEM principles
- Hands-on learning

Equipment for *FIRST* LEGO League Discover

Included with your registration

[See here the thematic equipment](#)



Team Meeting Guides, Engineering Notebooks, Discover Set, Discover More Set

Additional Optional Equipment to enhance your project



STEAM Park

Team: 2 - 4 Children (4 - 6 y.o / Kindergarten & Pre-Primary)

Participation : €100/team

FLL Discover Expo Event



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FIRST[®] LEGO[®] League
Explore



EXPLORE

FIRST® LEGO® League Explore



In Explore, groups of students ages 6-10 focus on the fundamentals of engineering as they explore real-world problems, learn to design and program, and create unique solutions with LEGO® bricks and powered by LEGO® Education WeDo 2.0 or the new LEGO® Education SPIKE™ Essential.

BENEFITS

- Understanding of concepts and creation of STEM skills
- Development of learning practices
- Application of *FIRST* Core Values

Equipment for *FIRST* LEGO League Explore

Included with your registration

[See here in action the thematic equipment](#)



Explore Set (includes LEGO elements to build Explore Model), Team Meeting Guides, Engineering Notebooks

Robotics Equipment to be used by the Teams



LEGO Education WeDO 2.0

LEGO® Education SPIKE™ Essential

Team: 2 - 6 Children (6 - 10 y.o / 4 - 6 Grades)

Participation : €150/team

FIRST® LEGO® League Explore



EXPO EVENTS



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- Fantasy is the name of the game!
- Non competitive approach
- Award to all participants
- Prizes corresponding to the areas in which the teams excelled
- Presentation to judges, parents and guests!
- Parallel activities!
- Fun and enjoyment!

MASTERPIECE

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FIRST[®] LEGO[®] League Challenge



CHALLENGE

FIRST® LEGO® League Challenge



Competition is at the heart of Challenge! For roughly 12 weeks, teams of students ages 9-16 are engaged in research, problem-solving, coding, and engineering – building and programming a LEGO® Education SPIKE™ Prime or LEGO MINDSTORMS® robot and conducting a research project to identify and solve a relevant real-world problem related to the annual theme.

BENEFITS

- Understanding of concepts and creation of STEM skills
- Application of *FIRST* Core Values

Equipment for *FIRST* LEGO League Challenge

Included with your registration

See here in action the thematic equipment



Challenge Set, Team Meeting Guides,
Engineering Notebooks

Robotics Equipment to be used by the Teams



LEGO Education SPIKE Prime



Lego Mindstorms EV3

Team: 2-10 Children (9 - 16 y.o / 5 – 12 Grades)

Participation : €350/team

FIRST LEGO League Challenge



CORE VALUES

Demonstrate **FIRST® Core Values** in everything you do. Your team will be evaluated during the robot game and the judging session.



Your team will:

- Apply **teamwork** and **discovery** to explore the challenge.
- **Innovate** with new ideas about your robot and project.
- Show how your team and your solutions will have an **impact** and be **inclusive!**
- Celebrate by having **fun** in everything you do!



Your team will:

- **Identify** your mission strategy.
- **Design** your robot and programs and create an effective plan.
- **Create** your robot and coding solution.
- **Iterate**, test, and improve your robot and program.
- **Communicate** your robot design process and everyone's contributions.

ROBOT DESIGN

Your team will prepare a short explanation on your robot design, programs, and strategy.

ROBOT GAME

Your team will have three 2.5-minute matches to complete as many missions as possible.

INNOVATION PROJECT

Your team will prepare a live, engaging presentation to explain the work you have done on your innovation project.



Your team will:

- Build the mission models and follow the field setup to put the models on the mat.
- Review the missions and rules.
- Design and build a robot.
- Explore building and coding skills while practicing with your robot on the mat.
- Compete at an event!



Your team will:

- **Identify** and research a problem to solve.
- **Design** a new solution or improve an existing one based on your selected idea, brainstorming, and plan.
- **Create** a model, drawing, or prototype.
- **Iterate** on your solution by sharing it with others and collecting feedback.
- **Communicate** your solution's impact.

See a detailed description of the Challenge: [English](#)

See the evaluation rubrics here: [English](#) [Greek](#)



Team Preparation for the MASTERPIECESM Season –

Click on the picture to play the video





Team Judging Session Flowchart

This is the time for the team to shine! So, enjoy the time with the judges. Tell them everything about your project and each team member contribution!

Review the evaluation rubrics below to understand exactly what the judges expect to know from you!

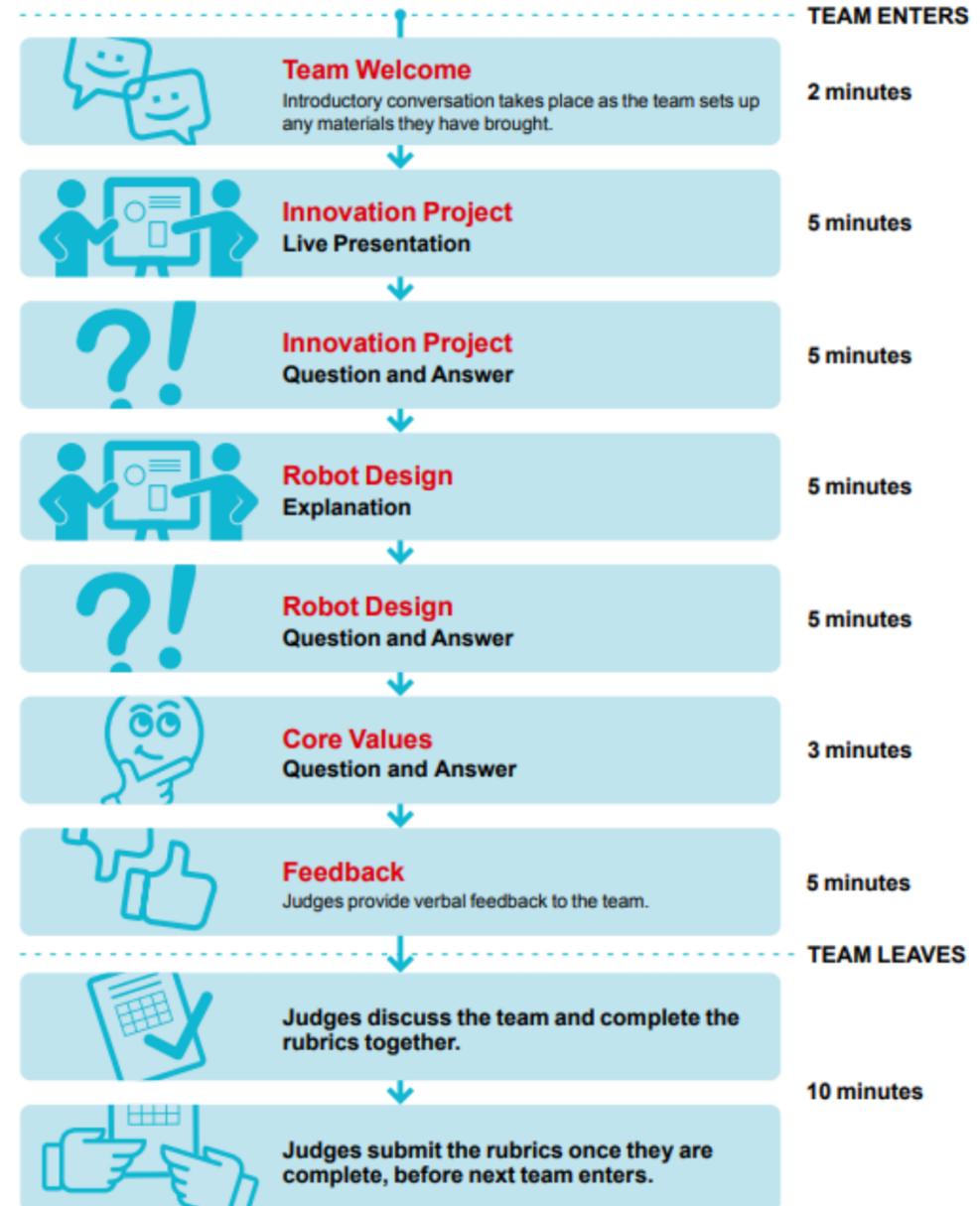
See the evaluation rubrics here: [English](#) [Greek](#)



Judging Session Flowchart

Teams should demonstrate Core Values in everything they do. The judges are excited to see how they show **teamwork, discovery, inclusion, innovation, impact, and fun** as they present their Innovation Project and Robot Design work.

This is the team's time to shine, so try to settle their nerves and encourage them. Please make sure they don't leave anything in the judging room, including any documentation, when they leave.



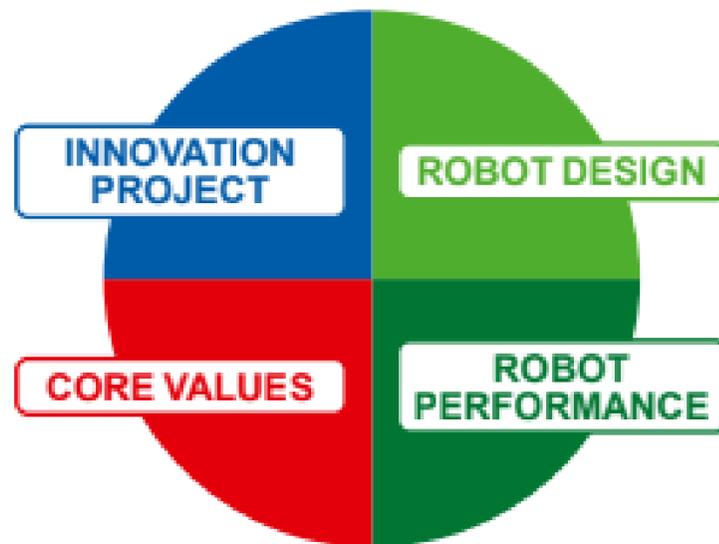
Robot Game

- Each team attempts to solve as many tasks as possible so as to maximize its points.
- There are 15 tasks! You may not be able to solve them all. Devise a strategy to solve some of the tasks that give you the maximum points.
- The robot has 3 attempts in the field. The best score counts in the final ranking of the Robot Game.
- Each attempt lasts for 2.5 minutes and are not consecutive. Between attempts the team can revise its code.

See more on the Tasks in the [video here](#)



Final Ranking



- The teams of the *FIRST LEGO* League Challenge are evaluated in 4 areas: Core Values, Innovation Project, Robot Design and Robot Performance.
- Using the rubrics' scores and based on the Judges Evaluation the teams are ranked in each category.
- These rankings are used to produce the final ranking of the champions!

$$\text{INNOVATION PROJECT RANK} + \text{CORE VALUES RANK} + \text{ROBOT DESIGN RANK} + \text{ROBOT PERFORMANCE RANK} = \text{CHAMPION'S SCORE}$$

These champion's scores are ranked to produce the champion's rank. The lowest score will be the top ranked team.



Robot Game

- The team comes to the Robot Game area, sets up its robot and waits for the signal to start accomplishing the tasks.
- At the end of each round the Referee together with the members of the team assess the tasks and record them on the Scoresheet

See the complete [Scoresheet here](#)



Team #	Match:	Referee:	Table:
TEAM INITIALS:			

			SCORE
EQUIPMENT INSPECTION			
If your robot and all your equipment fit completely in one launch area and are under a height limit of 12 in. (305 mm) during the pre-match inspection: 20			
MISSION 01	3D CINEMA		
If the 3D cinema's small red beam is completely to the right of the black frame: 20			
MISSION 02	THEATER SCENE CHANGE		
If your theater's red flag is down and the active scene color is: Blue: 10 Pink: 20 Orange: 30 • BONUS: And if both teams' active scenes match: Blue: 20 ADDED Pink: 30 ADDED Orange: 10 ADDED <i>Teams may activate only their own model.</i> <i>It is not possible to earn the bonus in remote competitions.</i>			
MISSION 03	IMMERSIVE EXPERIENCE		
If the three immersive experience screens are raised: 20 <i>To score, team equipment may not be touching the immersive experience model at the end of the match.</i>			

MASTERPIECESM

Access to all useful files of the MASTERPIECESM season is possible through the MyTeam:

- Detailed guide for the meetings for team preparation
- Engineering Manual
- Detailed instructions for model construction



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Timeframe for International Events



Bodo, Norway (14-17 May 2024)	Houston, USA (17-20 April 2024)
Long Beach, California, USA	Massachusetts, USA (7-9 June 2024)
Sydney, Australia (4-7 July 2024)	Sao Paulo, Brazil (1-4 August 2024)

- **FIRST® LEGO® League Challenge** – Participation of one team in a global event – **Expect Confirmation**
- **FIRST® LEGO® League Explore** - Under development - TBA



How to Participate in **FIRST® LEGO® League Cyprus**



Register your team(s)	Go here
Make payment for your team(s)	Beneficiary: CYPRUS COMPUTER SOCIETY Bank of Cyprus A/C: 0174-0101-3393 IBAN: CY21 0020 0174 0000 0001 0133 9300 SWIFT BIC: BCYPCY2N
Receive robotic set	Includes LEGO elements to build Models
Review the rich set of materials for the Masterpiece Season	Go here
Gain access to the training materials (Password protected)	Team Meeting Guides, Engineering Notebooks, Videos, Promotionals
Start training and preparation of your team	
Join us at the European University of Cyprus on 6-7 April 2023 for excitement and fun!	



Thank you!

Questions?

「MASTERPIECE」



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Communication with the Competition Teams

Cyprus:

Christina Papamiltiadou - c_papamiltiadou@ccs.org.cy - 22460680

Panicos Masouras - p_masouras@ccs.org.cy - 99373757

Greece:

Tel: +302311286369

Email: info@firstlegoleague.gr



PRESENTED BY Qualcomm



Stay updated – Connect to the community on the social media.



Other Initiatives and Activities



CYPRUS
COMPUTER
SOCIETY

- ▶ Conferences
- ▶ Train the Trainers Seminars
- ▶ Tech Trends Presentations
- ▶ ICT Career Presentations
- ▶ ICT Market Report
- ▶ Social Gatherings



Erasmus+ FEMME FORWARD



September 2023



37

In Progress

InClass 



smart
AI innovators



CYB **AR** VERSE 



Digital Skills Wallet



{ MigraCode }
EUROPE



V-UPGRATeS

Completed



Youth Activities for Students & Educators



ΠΛΗΡΟΦΟΡΙΚΗ • ΨΗΦΙΑΚΕΣ ΔΕΞΙΟΤΗΤΕΣ • ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΣ • ΚΥΒΕΡΝΟΑΣΦΑΛΕΙΑ • ΕΚΠΑΙΔΕΥΤΙΚΗ ΡΟΜΠΟΤΙΚΗ



codingourfuture.org



coinformatics.org



bebras.org.cy



ccsc.org.cy



robotex.org.cy



wrocyprus.org



FLL Cyprus

Activity	Website	Execution	Primary	Gymnasium	Lyceum
Coding our future	https://codingourfuture.org	On-Going	✓	✓	✓
Cyprus Olympiad in Informatics	www.coinformatics.org	October - May		✓	✓
Cyprus Programming Challenge	www.coinformatics.org	October – November		✓	✓
BEBRAS	www.bebras.org.cy	December - January	✓	✓	✓
Cyprus Cyber Security Challenge	https://ccsc.org.cy	March-October		✓	✓
World Robot Olympiad (WRO)	https://wrocyprus.org	July	✓	✓	✓
Robotex Cyprus	www.robotex.org.cy	June	✓	✓	✓
FIRST LEGO League	https://ccs.org.cy/el/downloads/get/news/181	March/April	✓	✓	✓

