



REPUBLIC OF TURKIYE
MINISTRY OF NATIONAL EDUCATION
The General Directorate
of Technical and Vocational Education

16th INTERNATIONAL MoNE ROBOT CONTEST

**FREE PROJECTS
CATEGORY RULES**

INTERNATIONAL
MoNE
ROBOT
CONTEST



OBJECTIVE

It is organized for robotic projects in International Robot Competitions to provide a platform for high school and university students to realize and present their dreams, scientific ideas, abilities.

SUBJECT

It will be organized in following topics;

- EDUCATION TECHNOLOGIES
- BARRIER-FREE LIFE TECHNOLOGIES
- ENERGY EFFICIENCY (ENERGY STORAGE)
- WATER EFFICIENCY

1. EDUCATION TECHNOLOGIES

They are expected to develop products that will facilitate learning with technology integration in education or training, make it permanent, and allow the subject to be handled in a multidimensional way by establishing a connection between the field to which the subject is directly related and other branches of science.



These products can be prototypes, educational software, educational software, educational games, educational simulations, innovative technologies within the scope of educational technologies.

- a) Development of digital applications that can provide ease of learning in Turkish and ease of learning in different languages,
- b) Development of digital applications such as interactive content that students can interactively practice within a determined education programme,
- c) Educational software developed within a scenario and with easy and effective methods on subjects that are difficult to understand,
- d) Applications developed to support and reinforce the knowledge and learning acquired at school,



2. BARRIER-FREE LIFE TECHNOLOGIES

To develop the social responsibility awareness of individuals, their technological ideas; aims to facilitate the lives of individuals with special needs by enabling them to implement them through original, local and national resources.



Ideas and studies that will minimize the difficulties faced by individuals with special needs in their academic, social and professional lives are expected. At the target of innovative and technological developments and applicable projects that are expected to be realized in order to eliminate the problems that affect individuals with special needs in the determined areas; awareness, usefulness and convenience.

a) Accessible Education For Disable People

Projects and ideas that provide solutions that facilitate the educational life of individuals with special needs in various developmental areas such as physical, mental, visual, auditory, autism.





b) Social Life Without Barriers

These are the projects that will develop and implement the technological infrastructure in order to increase the quality of life by facilitating the active participation of individuals in various parts of the society with different developmental characteristics in social life.



c) Accessible Health For Disable People

It will improve the health conditions of individuals with special needs in various fields such as physical, mental, vision, hearing, autism and developmental and will minimize the difficulties associated with these conditions; is to produce solutions for current problems, diseases, diagnosis, treatment and follow-up processes.

3. ENERGY EFFICIENCY (ENERGY STORAGE)

Energy efficiency is an extremely important issue today, given the ever-increasing energy needs and environmental impacts. Product development is expected in areas such as energy storage, efficient use, sustainability and reducing environmental impacts.

Within the scope of energy efficiency; it is expected to develop innovative technologies and solutions in areas such as smart energy storage systems, smart home and building systems, high efficiency electrical devices, energy management software, renewable energy storage solutions.

- **Energy Savings:** Energy efficiency projects contribute to the conservation of natural resources by reducing energy usage. This reduces energy consumption and therefore energy costs.
- **Reducing Environmental Impacts:** Less energy consumption reduces the release of atmospheric carbon dioxide and other greenhouse gases, thus playing an important role in combating climate change.
- **Sustainability:** Energy efficiency projects aim to create a more sustainable pattern of energy usage for future generations. This contributes to the long-term conservation of resources and increased energy security.
- **Economic Benefits:** More efficient using of energy enables businesses and individuals to save money by reducing energy costs. This creates a more economically competitive and sustainable environment.



Additional

4. WATER EFFICIENCY

Water is basic necessity for life and sustainable management of water resources worldwide is of great importance. The projects and products to be developed on water efficiency are expected to produce innovative solutions to protect water resources, prevent water waste and reduce environmental impacts.





It is requested that projects which is developed in this scope, should consider the following innovative approaches.

- **Protection of Water Resources:** Water efficiency ensures that water resources are used in a sustainable way. This is an important step to ensure clean water for future generations.
- **Preventing Water Waste:** Water efficiency projects prevent unnecessary use of water and minimize water waste. This ensures a more balanced use of water resources.
- **Reducing Environmental Impacts:** Water efficiency reduces the environmental impacts of water use. For example, it reduces energy consumption and carbon dioxide emissions during water treatment, transportation and use.
- **Economic Benefits:** Water efficiency projects save on water and energy costs. At the same time, water supply and infrastructure costs are reduced through more efficient use of water.

RULES

1. Only students from universities, high schools and secondary schools can participate to this competition.
2. Teams which will participate to competition are determined in frame of general rules.
3. Projects that have participated or applied to any other project competition with the same or different names and / or with the same or similar content (subject) **before the deadline** are not allowed to participate in this competition. Before the deadline, such projects that are determined their participation or application to another competition with the same project will be eliminated from the competition at any stage.
4. All competitors have responsibility to follow announcements published in official website <http://robot.meb.gov.tr>
5. Students participating in the TÜBİTAK Secondary Education Students Research Projects Competition cannot participate in this competition with the same project.
6. Preparing and uploading all documents are under responsible of competitors
7. All teams must upload their project report documents to robot.meb.gov.tr **before 20 September 2024** for pre-evaluation.
8. Pre-evaluation result which listed the projects that will be invited to final competition and other conditions will be published on <http://robot.meb.gov.tr> on **21-25 September 2024**
9. Teams which are invited to final competition have to prepare posters, brochure, text and if necessary 3D design models of their projects.
10. The projects will be exhibited in the exhibition hall. It is the responsibility of the competitors to transport the project to the presentation hall



11. Team members have to present their project presentations and video/slide show in maximum 10min to jury board.
12. Computer and projection device necessary for presentation will be provided by the organisation. All other technical equipments must be brought by competitors.
13. By applying, Competitors are deemed to have accepted that
 - used their own ideas, knowledge and skills in the selection of the subject of the project, in their approach to the problem, in their thinking and implementation,
 - received limited help from the counsellor teacher and related persons in the problems encountered,
 - the project is entirely their own,
 - accepted that they have not participated in another project competition with the same project before the deadline of this competition
 - prepared it in accordance with the rules specified in the application guide.

PRE-EVOLUTION

1. Projects which are prepared in accordance with project guide will be pre-evaluated by related jury experts through their “project reports”. Additional time may be given to projects that have some lacks after this evaluation.
2. It is expected that projects were inspired from original ideas of students. Students can get consultancy but their projects should be formed and finished with their own knowledges and competences. If it is determined that projects were not meet this expectation, competitors and advisor will be disqualified.
3. Jury members will consist of lecturers selected by Tübitak
4. The projects invited to the final will exhibit their projects to the participants at the tables / sections allocated to them in the exhibition area. The projects will be audited by two independent auditors without prior notice and without stating that they are auditing.

The auditors will score the projects according to followings;

- Presentation of their projects to auditors and their performance (10 P)
 - Posters and brochures explaining the project (10 P)
5. Projects/Robots will be evaluated by expert jury members of each group according to following criterions **(total score 80)**:
 - Innovation (15p)
 - Design (Performance, cost, simplicity) (15p)
 - Applicability (15p)



- Actuality(15p)
- Presentation performance (20p)

<i>Assesment Criteria</i>	Assesment at Stand	Jury Board Assesment
Presentation of their projects to auditors and their performance	10	
Posters and brochures	10	
Innovation		15
Applicability		15
Design (Performance, cost, simplicity)		15
Actuality		15
Presentation performance		20
<i>Subtotal</i>	<i>20</i>	<i>80</i>
<i>Total</i>	<i>100</i>	

6. Considering the scoring table above, the scores given by the independent auditors and the scores given by the jury committee will be added and it will be announced as the evaluation score. The first, second and third winners of the competition will be determined.
7. In case of equality , the jury may recall the competitors to make presentation again.

CALENDAR

Applications and upload Project reports	
Final correction deadline for accepted projects	21-25 September 2024
Announcement of Finalist Projects	25 September 2024



Points to be considered when uploading the Free Project Category Report to the system:

16th International MEB Robot Competition Free Project Category Report will be scored [at the pre-selection stage](#). The following areas will be taken into consideration when uploading to the system. It will consist of summary, purpose, innovation element, methods and methods used in the preparation phase, work, process, planning, result, resources utilized sections and can be supported with visual elements while preparing the sections.

Summary

Free It should describe the methods and procedures followed for the realization of the project idea, the verification methods such as modeling, simulation, testing, prototype production, etc. used, and the results obtained/expected to be obtained. It should be maximum 250 words.

Objective

What is the purpose of starting the Free Project category?

- What will be achieved if the project is successful?
- For what purpose and where will the project be used?
- Economic evaluations; cost, competitiveness, savings, benefit/cost ratio etc. calculations can be presented.
- If there are contributions of the project output to other organizations, sector or country other than the organization aspiring to use the results, these should be explained in this section.

Methods and Methods Used in Free Project Preparation Phase

The solution designed for the realization of the project idea, the path followed, the tools, techniques and methods used should be explained. This section is expected to include the activities carried out to verify or validate the project outputs.

Work, Process, Planning

It should include the plan that has been implemented during the project and the planning of the activities, time and responsibilities involved in the project.

Conclusion

The results achieved/expected to be achieved by the project should be analyzed, evaluated and interpreted. If the project outputs have been implemented in an industrial organization, the results obtained so far should be presented in this section.

Resources

In this section, the references should be given.