



**DIGITAL TECHNOLOGIES IN INDUSTRY  
COMPETITION SPECIFICATIONS**

# **1. OBJECTIVE AND SCOPE OF THE COMPETITION**

Digitalization in the manufacturing industry has the potential to create value through efficiency and productivity increases at every stage of the value chain. In the digital transformation process of the manufacturing industry, it is necessary to benefit from digital technologies efficiently, effectively and actively in order to be in a competitive position in production. Within the process, Technologies such as "artificial intelligence, autonomous robots, big data and advanced analytics, cloud computing, augmented and virtual reality, internet of things, additive manufacturing, next-generation smart sensor technologies and cyber security" seen as leading technologies in maximizing many elements such as added value, efficiency, profitability, quality and so on.

TEKNOFEST organize the Digital Technologies in Industry Competition to contribute to the development of a vision for the aimed point, within the scope of considering the digitalization of the manufacturing industry and investing in some areas about this field from today. Developments of digital technology applications at this stage in our country and in the world will be taken under review within the context of competition which is the part of perspective developed by TEKNOFEST.

Within the scope of the Digital Technologies in Industry Competition increase the competitiveness of our country by increase efficiency, quality, speed and flexibility in production processes such as planning, stock tracking, procurement, marketing, management and decision support, logistics, energy use targeted. It is expected to be produced with domestic and national means.

Robots in manufacturing processes is becoming more common day by day with the digital transformation in the industry. In line with this purpose, it is aimed to build an autonomous-controlled guided robot that moves on assigned roads that can be used in factory internal logistics or in warehouses and carries determined loads.

## **2. GENERAL INFORMATION ABOUT THE COMPETITION**

### **2.1 Participation Conditions**

- All high school (including Open Education) and university students (including Undergraduate, Associate Degree, Master's, Doctorate and Open Education) and graduates studying in Turkey and abroad can participate in the competition.
- It is mandatory to participate in the competition as a team. Teams must consist of a minimum of 3 and a maximum of 10 people. Teams can only take 1 person as an adviser.
- Teams can be formed from a single school or can be formed as a mixed team by bringing one or more secondary education / higher education students together. The competition category in which the team can participate will be determined according to the one with the highest education level among the team members.

- Along with the Pre-Design Report, approved student documents must be submitted for students, and a certified document showing that they are lecturers, research assistants or teachers for advisors.
- The competition consists of **two** categories: Basic Category and Advanced Category.
- Participants at the secondary education level (including graduates) can only register for the Basic Category.
- Higher education student or graduate (associate degree, undergraduate and graduate) participants can **only** enrol in the Advanced Category.
- Secondary education level graduates are required to pass a maximum of 3 (three) years from the graduation date.
- A member of a team cannot be found as another team member of the same competition.
- Secondary education level teams must have a mentor. The document stating that the person who will serve as the Advisor will fulfil the advisory duties should be uploaded to the system together with the Pre-Design Report with wet signature.
- Undergraduate, graduate students and graduate-level teams can recruit a lecturer / member or research assistant as an advisor.
- The advisor is required to upload the document that he / she will receive from the relevant institutions where he / she works as a teacher / trainer / academician, with the Pre-Design Report.
- The assignment of the advisor; to help students to plan their own education, to guide them in academic, social and cultural issues, contribute to development of the student's personality as a whole with its mental, social and emotional aspects, etc. tasks and services. The role of the advisor in the team is to provide the academic support that will be needed in the project, to guide the team members to find solutions to their problems.
- The advisor is obliged to send the assignment letter from the relevant education / training institutions to the TEKNOFEST Committee, with the Project Detail report
- In case of a change in advisor, it must notified the relevant TEKNOFEST Committee in writing. (This document must be given in order to change advisors.)
- The transportation and accommodation support to be provided to the finalist teams is limited. The number of people to be supported will be notified to the teams later by the TEKNOFEST Competitions Committee.
- TEKNOFEST Competitions Committee has the authority to restrict the number of members to be in the festival area. Information about restriction will be given by the committee.
- The team must include a team captain.
- All information to be made by the TEKNOFEST competitions committee will be made through the person designated as the team's contact person. For this reason, each team should designate a contact person.
- Process monitoring (Application, Report Upload Deadline, Form to be filled, etc.) is the responsibility of the contact person and TEKNOFEST competitions committee is not responsible for tardiness and/or failure caused by the contact person.

- Applications are made online via the [www.t3kys.com](http://www.t3kys.com) application system until 28 February 2022.
- During the application dates, the team captain/advisor registers through the system, if there is an advisor and/or team captain registers team captain/team members to the system correctly and completely, and sends an invitation to the advisor and members' e-mails. The member to whom the invitation is sent, logs in to the application system, accepts the invitation from the "My Team Information" section and the registration is completed. Otherwise, the registration will not be completed.
- Competitors who have completed the team formation process must apply to the competition according to their project.
- All necessary processes within the scope of the competition (Application, Report Receipt, Report Results, Financial Support Application, Objection Processes, Member add/drop procedures, etc.) are done through the CMS system. Teams are required to follow their processes through the CMS system.
- Member add/drop processes are made until the Project Detail Report submission date.
- During the competition, the processes of applying through the CMS, uploading reports, filling out forms are under the authority of the team captain and/or the advisor, and the competition processes are managed through these people.
- The competitors will be able to participate in the competition by reading and approving all the explanations about the competition and the participation conditions before applying. Applicants to the competition are considered to have accepted all of the above conditions.

## **2.2. Categories**

### **2.2.1 Basic Level**

Only Secondary Education teams can participate in the basic level competition. The guided robot will line/follow. The robot is expected to perform all tasks autonomously. Guided robots should also act autonomously in situations such as stopping at lading and discharge points, and navigating around a hurdle if it is not opened. There will be RFID tags at the lading and discharge positions. RFID tags must be able to be read through appropriate sensors on the vehicle. It is expected that the teams will prepare a control screen (GUI-graphical user interface) with buttons and keys on the computer screen, where they can monitor the status of the vehicle and make guidance. Hurdles will be detected by a sensor and stopped at the appropriate distance. Except for the mentioned places, it can be intervened via the control panel when necessary with the above methods, but penalty points will be applied as stated in the score table. The guided robot shall in no way be controlled by a joystick, portable hand controller, phone or tablet. The pick-up or release of loads by the guided robots should be indicated on the control panel (GUI) by means of a sensor. Approvals on the field (such as arrival at one of the points, lading and discharge, completion) will be made by the referees green flag. The team members in the field are only on duty for general observation purposes and will not interfere with the control desk and the vehicle in any way. Team members observing the robot doing its assigned task will race from the control desk.

In the basic level, the first stage is completed with the robot going to the empty points on the given track. The guided robot, which reaches the starting point again, is loaded with approval and starts its second task. The robot completes the task when returns to the starting point.

### **2.2.2. Advanced Level**

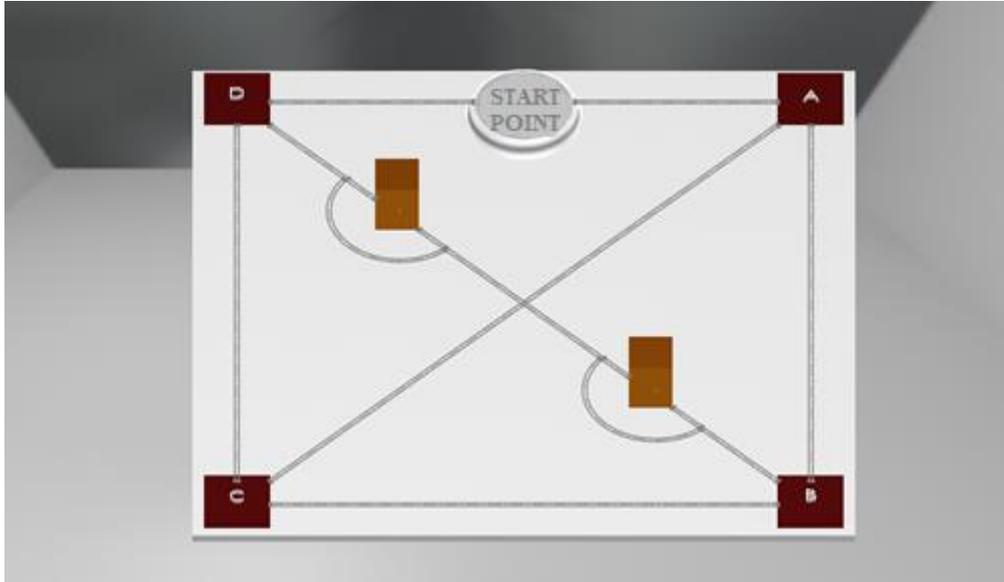
Higher education students or graduate level participants can participate in the advanced level competition. Although empty and loaded job definitions are the same with basic level advanced level competitors are expected to map the track. It is expected that a control panel (GUI) will be created where the competition details such as speed and total task time are displayed, as well as the mapping made via devices such as laptops and tablets belonging to the team members at the control desk. It is desired that the mapping be detailed and RFID tags are displayed on the map as they are read.

## **3. COMPETITION AND WORKING AREAS**

For the competition, there will be a representative factory area in the form of a rectangular area of approximately 200 square meters and an area where a table is located for each participating team to use, in a separate location from the track and track representing the location of its roads and internal logistics roads. 220 VAC energy will be supplied within the area. In addition, there will be a control desk (Basic Level) at the edge of the track where the team whose turn to race will control the guided robot. 220 VAC voltage will be provided to the teams at this point. Each team will make the AC / DC conversion at the control desk with the converter themselves will provide. The highest DC voltage level that can be used will be 50V. The track will be likened to a factory area and will have lading and discharge points. These points will be given to all participant team with different distribution.

- Basic level and advanced level race track will be held in the same area. Points A, B, C and D represent the 1.5x1.5 meters areas located at the corners of the track. Robots are expected to leave their loads in these areas and take their loads from within these areas. The starting point will be in the middle of points A and D or B and C (Figure-1). Starting point may vary according to the templates determined by the referee committee. It is expected from robots to be programmable in accordance with variable routes.
- A line will be drawn with a specific coloured tape between the points and around the lading-discharge areas.
- There will be 4 lading and discharge points at points A, B, C and D on the track. At these points, there will be places to put a load platform and RFID tags showing that there is a lading/discharge station. It is necessary to leave the cargo platforms at the marked places while leaving them as they were taken from the same place. Penalty points shown in the table will be applied for cargo platforms left at different points. The guided robot should be able to go to the lading and discharge areas in accordance with the given directives and the course template provided by the referee committee, and be able to lading and discharge the loads. Loads should be lading and discharge automatically. Necessary hurdles will be placed by the organizing committee in accordance with the template.

- In addition to the basic level track, more hurdles will be added in the advanced level. The number of hurdles will be determined by the referee committee.
- There will be RFID tags only at the lading and discharge points. The features of these labels will be notified to the competitors later on.



**Figure 1:** Sample Race Track (Representation: Hurdle and circumvention path)

#### **4. LOAD CARRYING ROBOT TECHNICAL SPECIFICATIONS AND RESTRICTIONS**

The load carrying robot maximum dimensions can be: 1,000 mm (length) x 900 mm (width) x 500 mm (height). The dimensions of the load carrying robots cannot be larger than the mentioned limit values. The mechanism used to lading the load platform may exceed the height limit when operated, the limit given is valid when the vehicle is not running under load.

Robots should be designed as guided robots that can follow lines for basic and advanced levels and can operate fully autonomously, and should be able to perform the tasks given during the competition without any external control or intervention.

The robot must get its driving power from the battery system placed on it, and should not operate cabled on any energy cable. The battery system must be positioned in such a way as to provide the energy to achieve the tasks described in the competition details. There should be no charge request during the race.

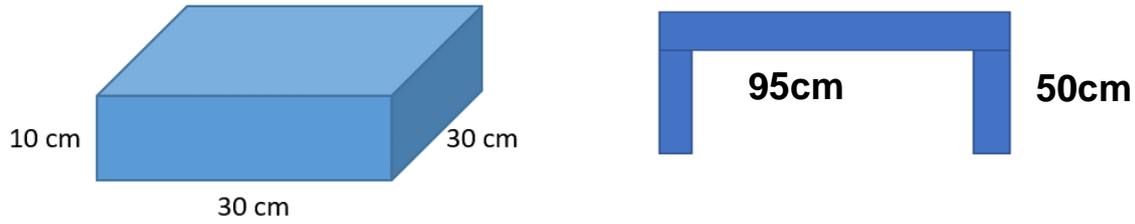
#### **5. DETAILS**

## 5.1. Rules

- In both categories, the competitor team will compete as two separate teams during their race time. There can be a maximum of 2 team members at the control desk. The completion of each stage at all levels will be notified by the referees by raising the green flag, and in case of fault, the red flag will be raised by the referees. At all levels, there will be no interference out of watching the control panel at the control desk. In case of interference, the relevant penalty point specified in the score table will be applied.
- After the competitor team is called to the race track, it will have a reasonable preparation time to be determined by the referee committee. During this time, the referee committee gives the robot movement template to the team. When the teams are ready, they can start the race by giving a signal.
- The competition starts with no load for each level within the movement pattern given to the team between the mentioned points. With the completion of this step, the loaded step starts immediately. When returning to the starting point, the track is completed and the entire track time of the team is recorded by the referee committee. In case of equal points, the team that completes the given tasks in the shortest time gains an advantage.
- Different from the basic category, additional hurdles are added to the track for advanced category competitor teams. While performing the tasks, it is expected the load carrying robot is expected to overcome the hurdles while it is empty and laded.
- Loads of 30cm x 30cm x 10cm dimensions and 25 kg (load weight) weighing will be provided by the competition organization. (Figure-2)-(a) For automatic lading and discharge, the loads will be positioned on platforms (Figure-2)-(b) with a maximum height of 50 cm from the ground so that the robot can easily enter and lift under from all directions and lading. The weight of the cargo platform provided by the competition organization will be 25 kg. Loads over 25 kg will be completed with loads provided by the competition organization. While the lading/discharge locations are defined with RFID tags, the teams can create unique solutions so that these positions allow for an exact autonomous lading and discharge. Teams will be able to use these unique solutions during the competition, provided that they explain in their detail reports and if deemed appropriate.

(a)

(b)



**Figure-2:** Load

- As a result of damage such as pollution of the track area, hitting and rubbing against objects on the track, points equal to the penalty point in the score table will be deducted from the total score of the relevant team.
- In advanced level, it is necessary to map the area with the sensors on the autonomously-guided robot, to determine the locations of the objects on the map, and to show this via wireless communication on the computer of the team on the control desk. It is expected that hurdles, RFID tags, lading/discharge positions and the location of barriers, security cages or panels used for perimeter security will be marked on the map.
- Performance of the teams will be recorded and can be used as promotional material during the contest.
- Referees will convene on the case and decide for special situations that are not mentioned in this specification but may arise during the competition.

**Sample Scenario:** Robot öncelikle başlangıç noktasından üzerinde herhangi bir yük olmadan sırasıyla A, B, C ve D noktalarına gitmeli ve başlangıç noktasına dönmelidir.

- Then the robot must take the load from the starting point and go to point A and continue to point C without releasing the load. The robot that comes to point C should leave the load at point C and go to point B without load. The robot must take the load from the B point and go to the D point and discharge to the D point and complete the task by going to the starting point from D without load. By the competition organization, robots will be asked to fulfil a scenario created by changing the rows of the stations similar to the sample scenario for each team.
- Advanced robots must perform the tasks without any external operator intervention while performing the tasks. At the basic level, a fully autonomous mission is expected as described in 2.4.1
- The robot must be designed to carry a load of at least 75 kg (load platform and 50 kg).
- The robot must be able to deal with line or path defects.
- The load should not be dropped from the robot during the track and should be delivered to the delivery point. In this regard, load should be lading to robot but there will be a score deduction. If the load is left outside the area specified on the track, there will be a score deduction to.
- The robot must have the ability to approach the load lading and discharge points from different directions and to take a suitable position at these points without rubbing or hitting. In the event of a collision, the penalty point specified in the score table will be applied. The

areas where the loads will be lading and discharge will be marked in advanced level, and the robots are expected to discharge into the marked area. The perimeter of the lading area will be marked with tape in accordance with the design of the robot.

- While following the trajectory, the robot should slow down in case of an hurdle, and if the hurdle is blocking the path, it should stop without crashing. While waiting, the robot should give a warning by playing a warning sound. If it does not give a warning, penalty points will be applied. If the hurdle remains blocked after 15 seconds, the robot must go around the hurdle. The procedure to go around earlier than 15 seconds is penalized with penalty points. In this case, certain hurdles will be placed on the routes that the robots will follow by the competition organization and the behavior of the robots against the hurdle will be observed. If the robot does not go around the hurdle after this time has elapsed, it will open after 15 seconds.
- The robot's equipment such as control unit, battery, sensor will be selected in the most appropriate way for the task and will be determined by the team. There are no hardware restrictions in this regard. Similarly, the control software of the robot will be selected by the team and should be suitable for performing the instructions in the most appropriate way.
- Teams should make a follow-up program and share the management screen (GUI) with the jury and referee committee, such as instantaneous electrical values such as charge, current drawn, voltage, as well as the map being drawn exactly.
- Robots should be easily programmable to perform tasks in different scenarios given by the competition organization.

## **5.2. Application Principles**

Applications will be received through the official website of the TEKNOFEST Aviation, Space and Technology Festival Technology Competitions ([www.teknofest.org](http://www.teknofest.org)).

For application, the application form must be filled until 28.02.2021.

### **5.2.1. High school students**

In the application form;

- Participant name, surname, school name and contact information (e-mail address, phone number), project name and category,
- If applying as a team, the team name will be added along with the information of other group members (student names, university, faculty, department name and contact information).
- Name and surname of the consultant will be added.

### **5.2.2. Higher Education / Graduates**

In the application form;

- Participant name, surname, university, faculty, department name and contact information (e-mail address, phone number), project name and category,

- If applying as a team, the team name will be added along with the information of other group members (student names, university, faculty, department name and contact information).

- Name and surname of the consultant will be added.

## **6. SCHEDULE, SCORE TABLE AND EVALUATION**

### **6.1. Schedule**

<b>Tarih</b>	<b>Açıklama</b>
<b>28.02.2022</b>	Application Deadline
<b>16.03.2022</b>	Pre-Design Report Deadline
<b>01-05.04.2022</b>	Announcement of the teams that passed the pre-selection according to the Project Pre-Design Report Results
<b>02.05.2022</b>	Project Detail Report Deadline
<b>08-12.06.2022</b>	Announcement of Project Detail Report Results, Financial Support and Finalist Teams
<b>05-07.08.2022</b>	TEKNOFEST

Evaluation will be made under headings as Pre-Design Report, Project Detail Report, video and race scoring. A total of 2 reports and video will be prepared within the scope of the competition. Reports will be in the form of Pre-Design Report and Project Detail Report. Teams that do not submit Pre-Design Report, Project Detail Reports and video will not be eligible to participate in the competition.

Report Submission must be uploaded via the CMS system until 17:00 on the day specified in the calendar. TEKNOFEST Competitions Committee reserves the right to make changes in the calendar and hours.

### **6.2. Pre-Design Report**

Teams are obliged to submit their Project Pre-Design Reports on the date specified in the calendar. Detailed information regarding the submission of the Project Pre-Design Reports will be shared with the teams that have completed their application after the contest application deadline has expired. A pre-selection will be made according to the results of the Project Pre-Design Report. You can access the Pre-Design Form on the website. As a result of the preliminary evaluations, the teams that moved to the second stage will be announced on the date specified in the Competition Calendar.

### 6.3. Project Detail Report

Teams that pass the Project Detail Report (PDR) stage are obliged to submit their Project Detail Reports on the date specified in the Competition Calendar. Project Detail Report; There should be a report detailing the Project Development processes including Analysis, Design, Development, Testing and Implementation (integration and go-live activities), as well as detailing the Project Budget, Project Plan (project schedule) and Project Scope. Templates of the Project Detail Report will be announced on the TEKNOFEST website. Those who qualify for the finals according to PDR results will be announced on the date specified in the Competition Calendar. In addition, all teams that are entitled to compete in the final have to submit the videos of their robots to the jury before the final competition. Teams that do not submit a video forfeit the right to compete in the final.

### 6.4. Evaluation

Scoring consists of report and Prototype/Presentation (Competition) scoring. Report scoring and video will make up 30% of the total score. 70% of the total points will be obtained from the tasks given during the competition.

#### 6.4.1. Report

Scoring details are given in the table below.

Parameter	Percentage
Project Pre-Design Report	% 10
Project Detail Report + Video	% 20
Prototype and Presentation (Competition)	% 70

Table 1: Score Distribution

#### 6.4.2. Project and Presentation

The projects of the finalist teams will be evaluated by expert jury teams in the relevant category fields. A visual presentation should be prepared for the jury evaluation. For participation in the final, video submission is expected after PDR. Detailed information on the requirements of the competition environment, the demonstration of the prototypes to the jury by the competitors and the visual presentations will be shared with the finalist teams after the finalist teams are determined.

After the TEKNOFEST Competition Calendar, the final ranking of the finalist teams will be announced on <https://www.teknofest.org/> according to the final evaluations.

PARAMETER	BASIC	ADVANCED
Presentation	15	15
Empty track completion	30	30

Loaded track completion	35	35
Robot Control Panel Design (GUI)	10	10
Creative-Unique Solutions	10	10
<b>Penalty Points</b>		
Discharging the load out of the area	-5	-5
Bumping-Rubbing	-5	-5
Dropping the load	-5	-5
No hurdle warning sound	-5	-5
Don't wait/early turn around the hurdle	-5	-5
Intervention to the robot from the control desk	-5	-5

Table 2: Competition Score Distribution and Penalty Points

## 7. AWARDS

As a result of the evaluation in three stages in the competition, the teams that pass the pre-selection and rank in the final evaluation in their own category will be awarded a money award. The awards specified in the table below show the total amount to be awarded to the teams that are entitled to receive awards, no individual awards will be made. The first, second and third prizes will be divided equally according to the total number of Team Members (to all members registered in the System) and will be deposited into the bank account specified by each person. Teams may be given honorable mention and incentive awards if deemed appropriate by the competition jury.

### Minimum Success Criteria for Award Ranking:

In order to qualify for the prize ranking in the competition, teams must successfully pass the pre-selection. Only those who can get a degree from the teams that can enter the award ranking will be eligible for the awards listed in Table 3.

Place	1st	2nd	3rd	Advisor Award
<b>Basic</b>	20.000,00 ₺	15.000,00 ₺	10.000,00 ₺	2.000,00 ₺
<b>Advanced</b>	30.000,00 ₺	20.000,00 ₺	15.000,00 ₺	3.000,00 ₺

Table 3: Money Awards

In order to enter the prize ranking in the basic and advanced categories, it is necessary to get at least 60 points from the competition scoring (prototype and presentation score).

## 8. GENERAL RULES

- Authorized persons of each team have the right to appeal to the relevant referee. Objections can be made verbally, provided that they are submitted in writing later. Verbal objections are made in writing within 24 hours at the latest. In any case, unwritten objections will not be taken into consideration. Objections are examined by the referee committee and resolved within 7 workday.
- After the evaluation results are announced, authorized people from each team are required to submit their objections and justifications in writing. Objections submit from [www.t3kys.com](http://www.t3kys.com) website.
- Objections must be submitted from the date the competition results until committee specified date announced. Otherwise, the objections are not taken into consideration.
- The assignment of the advisor; to help students to plan their own education, to guide them in academic, social and cultural issues, contribute to development of the student's personality as a whole with its mental, social and emotional aspects, etc. tasks and services. The role of the advisor in the team is to provide the academic support that will be needed in the project, to guide the team members to find solutions to their problems.
- Although the subject of the competition is the result of the effort of the competitor/competitors in the team, the intellectual work reflects the characteristics of the team members and the Advisor will not be accepted as the owner of the work.
- Teams that have benefited from the past years reports on website should indicate on the relevant page that they quoted. You must state the explanation after the quoted sentence. QUOTE FORMAT: "Cited Sentence/s" (Year, Competition Name, Category, Team Name) EXAMPLE CIRCUMSTANCE: "The most important problem that slows down the debris removal and earthquake victim search efforts is that the location of the earthquake victim is not determined in the debris." (2020, Technology Contest for the Benefit of Humanity, Disaster Management, Team X)
- Each competitor is obliged to take the necessary safety precautions while racing and to show the expected attention to his environment.
- Turkey Technology Team (T3) Foundation and the organizing committee, to take place in objective criteria of the competition terms can lead to fair results, competitors can be better met their every need, ensuring the safety measures and order becomes effective competition conditions reserves the right to make any changes in the present specification.
- T3 Foundation and the organizing committee reserve the right to cancel the competitions in the event that there are not enough applications with the technical knowledge and skills required to participate in the competitions as a result of the evaluations to be made after the application process.
- TEKNOFEST Safety and Security Specifications are notified to all competitors, delegations and relevant persons. All teams that will compete within the scope of the organization are obliged to meet the safety conditions specified in the TEKNOFEST Safety and Security Specification, specific to the competition they compete. In this respect, it is the competitors' responsibility to take additional precautions arising from the systems used, other than those included in the said safety instruction.
- T3 Foundation and the organization committee reserve the right to exclude teams that are

found to not meet the conditions specified in the TEKNOFEST Safety and Security Specifications in order to ensure that the organization can be held in a safe environment. T3 Foundation and organization officials are not responsible for any damages that may occur as a result of the violations of the competitors, delegations and related person during the competition.

- Concerning the competition, the competitor accepts and undertakes all kinds of written or visual promotions, publications, social media and internet broadcasts to be made before or after the competition by the T3 Foundation and/or TEKNOFEST. In addition, the competitor is entitled to the rights of processing, dissemination, reproduction, representation, visual or auditory means and the right to transmit to the public on the designs, codes and scientific and artistic work produced or contributed to the production of T3 Foundation/TEKNOFEST without any time limitation. e, accepts, declares and undertakes that he consents to the presentation of the relevant work to the public within the framework of the open source policy of the T3 Foundation and its use and development by the relevant persons by reference. T3 Foundation reserves the right to make changes on the work when necessary and to make all intellectual property available to the public (limited to what it shares with the T3 Foundation) as and when it deems appropriate.

- Concerning the rights of the competitor on the part of the work transferred to the T3 Foundation, a registration can be made with the Turkish Patent and Trademark Office or WIPO (World Intellectual Property Organization) within the framework of the Industrial Property Law No. 6769 and other legal regulations governing Intellectual Property Rights, provided that the written permission of the T3 Foundation is obtained or to apply for protection, that T3 Foundation and T3 Foundation will not prevent its use by applying any prohibition against third parties who benefit within the scope of open source code policy with the knowledge of the T3 Foundation, will not apply for protection measures within the scope of legal legislation, and will not request for stopping the use with the claim of violation, and commits.

- In the event that the T3 Foundation and TEKNOFEST suffer damage due to the violation of the intellectual and industrial property rights of any product, the said damages will be covered by the relevant team (including the advisor).

- A Participation Certificate will be given to all finalist teams that qualify to participate in the competition.

## **9. CODES OF CONDUCT**

- In the festival area or during the competition process (report stages, evaluation process, etc.) a situation, action, speech, etc. that is against public morality. Behavior that actual performers at the moment when detected / person to start the legal process urgently about and the team has at least 2 years during operations in Turkey Technology Team Foundation site will be all kinds barred from participation in events and activities.
- The issues to be considered in the language used in all communication with the TEKNOFEST Competitions Committee are as follows;
  - Rude and impolite words and behaviours should be avoided,
  - Insults, threats and bad words should be avoided,
  - E-mail, Facebook, Skype, Messenger, WhatsApp, Twitter etc. Avoid direct targeting and

insulting with social media tools such as,

- It is necessary to pay attention to the spelling rules and style in your petitions and objections.

- Situations, verbs, words etc. that will affect the functioning and motivation of other teams in the festival area. behaviour should not be exhibited.
- Social peace should be taken into consideration in the dormitory and its surroundings where accommodation services are provided. Otherwise, the initiation of the legal process against the person will be carried out by the relevant institutions.
- During the project and product development process, it is the responsibility of the team to back up / store the necessary equipment and materials in advance, taking into account all kinds of negativity, and to change parts in case of a possible negativity, and product supply from another team should not be provided.
- In the festival area and in all kinds of services provided by TEKNOFEST, it is necessary to pay attention to act in accordance with the service requirements in neutrality, without discrimination of language, religion, philosophical belief, political opinion, race, age and gender, without giving rise to behaviours and practices that prevent equal opportunity.
- It is necessary to pay attention not to use and use the goods and resources of TEKNOFEST and other companies-institutions-organizations other than their purposes and service requirements, and not to waste these goods and resources.
- It is necessary to support the activities carried out to facilitate the functioning of the festival, to meet its needs in the most effective, fast and efficient way, to increase the quality of service and to increase festival satisfaction.
- Competitors in the festival area to be careful about all kinds of benefits provided to themselves, their relatives, friends or persons or organizations with whom they are in contact and financial or other liabilities and similar personal interests that affect or seem to affect their performance in an impartial and objective manner. must take the necessary measures to avoid conflict of interest.
- In the use of TEKNOFEST, buildings and vehicles and other public goods and resources, it is necessary to avoid waste and waste, to act effectively, efficiently and economically when using working time, public goods, resources, labour and facilities.
- TEKNOFEST team members should be accountable for their responsibilities and liabilities and be open and ready for institutional evaluation and auditing, managers should take the necessary measures to prevent corruption with transactions or actions that are not in line with the objectives and policies of their institutions, and train their personnel on ethical principles of behaviour, this observe whether the principles are followed or not and guide in ethical behaviour.
- While performing their duties, team members should not make any statements, commitments, promises or attempts binding the institutions they work for, and should not make deceptive and unrealistic statements.

### **State of Responsibility**

- T3 Foundation and TEKNOFEST are not responsible for any product delivered by the competitors or any injury or damage caused by the competitor. T3 Foundation and organization officials are not responsible for the damages caused by the competitors to third parties. T3

Foundation and TEKNOFEST are not responsible for ensuring that the teams prepare and implement their systems within the framework of the laws of the Republic of Turkey.

**Turkey Technology Team Foundation reserves the right to make any changes in this specification.**