MakeX Robotics Competition

Courageous Traveler

Competition Guide

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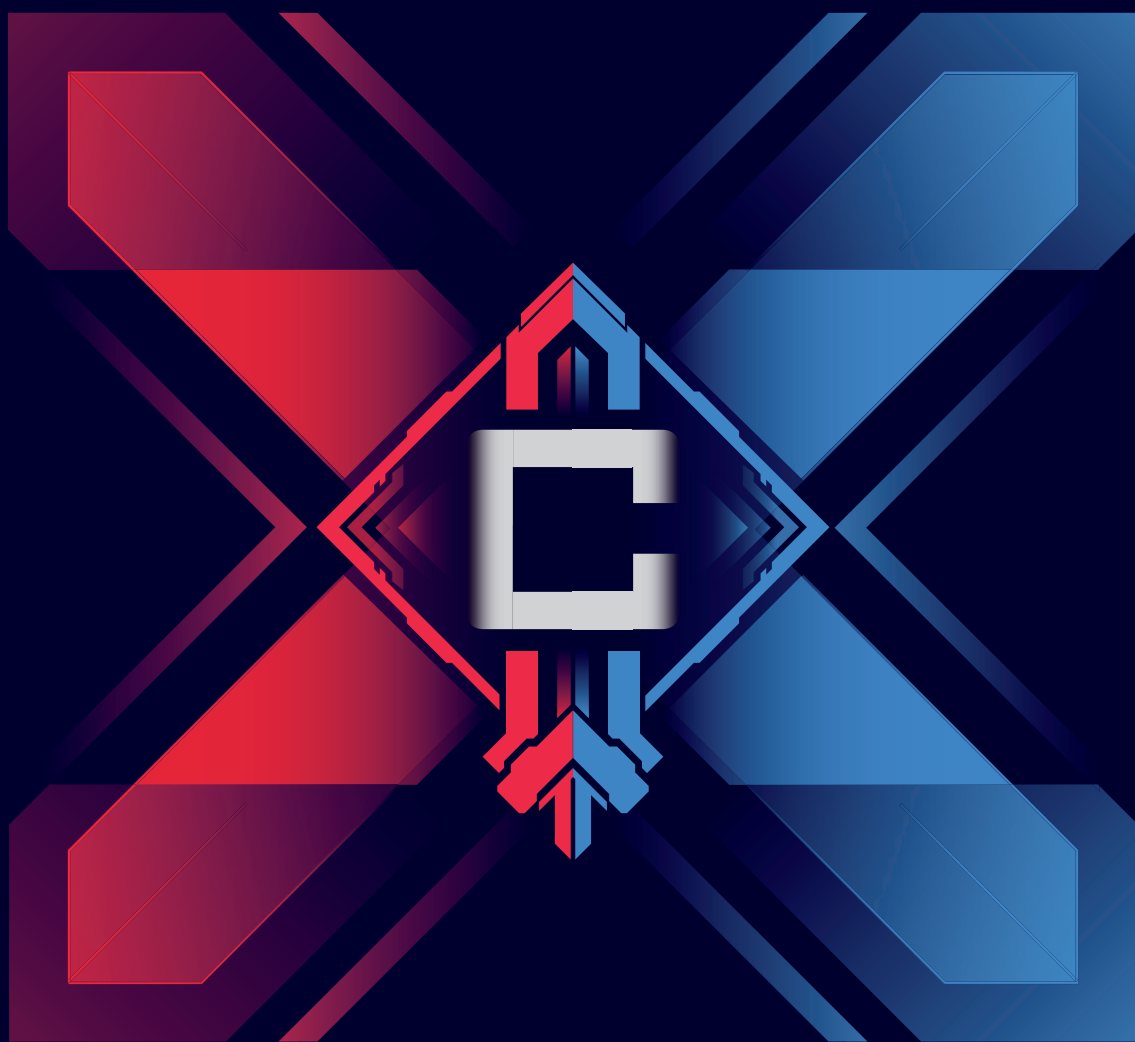
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2019.01.23	1.0	Courageous Traveler Competition Guide First Publish
2019.04.30	1.1	Contestant age supplementary explanation
		Electronic engineering notebook submission method revise

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1. Introduction

1.1 About MakeX

MakeX is a platform of robotic competitions for guiding the growth of young people. It aims at inspiring people's enthusiasm for creativity, sharing, and collaboration by Robotics Competition, STEAM Carnival, etc.

MakeX Robotics Competition is hosted by the MakeX Robotics Competition Committee, organized by Shenzhen Hulu Maker Co., Ltd. and supported by Shenzhen Makeblock Co., Ltd. As the core activity of MakeX, it aims that through the competition, young people will discover the spirit of creativity, teamwork, fun and sharing. It is committed to promoting innovation in science, technology, education through high-level competition events, guiding young people to learn Science (S), Technology (T), Engineering (E), Art (A) and Mathematics (M) and apply such knowledge in solving practical problems through the exciting and challenging competitions.

1.2 MakeX Spirit

Creativity: we advocate curiousness and innovation, encourage all contestants to create unique high-tech works with their talent, and challenge themselves for continuous progress!

Teamwork: we advocate solidarity and friendship, encourage all contestants to develop a sense of responsibility and enterprising spirit, and sincerely work with their partners for win-win development!

Fun: we encourage contestants to build a positive, healthy mindset in the competition. Enjoy the journey and grow in the process.

Sharing: we encourage contestants to have an open mind as a maker and share their knowledge, responsibility and joy with everyone including their teammates and competitors.

MakeX spirit is the cultural cornerstone of the MakeX Robotics Competition. We hope to provide a platform for all contestants, mentors and industry experts to exchange ideas, study and grow up, and help young people acquire new skills during creation, learn to respect others in teamwork, gain an enjoyable life experience in the

competition, take delight in sharing with the society their knowledge and responsibility, and work hard to achieve their grand aspiration of changing the world and creating the future！

1.3   About 2019 Season

In 2019 season, MakeX will hold Regional Robotics Competition in more than 30 countries and regions around the world and will launch MakeX competition courses and organize various competition activities, worldwide spreading STEAM education among the teenagers.

Qualified teams can enter into 2019 MakeX World Championship and compete for the 2019 MakeX World Champion.

The theme of MakeX Challenge for the 2019 season is Courageous Traveler, which mainly tests the contestants' engineering technology, strategic teamwork and tactical execution.

In the cities where we live, there always have various safety problems that endanger people's safety, such as terrorist attacks that threaten national safety and food quality problems. To protect everyone on Earth, a group of Courageous Travelers will embark on a journey to protect human's life.

2. Participation Requirements

2.1 Contestants

The number of contestants in each team is 2-8. The age requirement of the Courageous Traveler contestants is between 11 and 18 years（birthday between 2/1/2000 to 31/12/2008）. Contestants already participated in 2018 MakeX Challenge-Interstellar Exploration can attend 2019 MakeX Challenge-Courageous Traveler with the age under 18(birthday after 1/1/2000).

At the start of the season, contestants should be the enrolled students in compulsory education stage (students from different education systems should meet the age requirement).

2.2 Mentors

Each team must have 1 or 2 mentors. The mentor shall be over 18 years old.

2.3 Team Number

Team number will be regarded as the only identification of the team during the whole competition.

Each team will automatically obtain the team number after creating the team on MakeX official website.

2.4 Identification Symbols

Each team must have a team logo, team name and team slogan. Teams are encouraged to use uniforms, flags, posters, badges, base decorations etc. to show the team culture.

2.5 Team Roles

Participation in MakeX Robotics Competition is more than just a few minutes competing. MakeX encourages young people to participate in team building. Everyone

in the team can play their respective roles as operator, observer, engineer, project manager, publicity manager and so on. By participating in MakeX, the contestants will not only learn professional knowledge requested in the project, but also master the necessary skills such as public relations, publicity, project management and so on.

3. Registration and Application

3.1 Registration

Contestants and mentors can use mobile phone numbers (E-mail for overseas team) to register MakeX official website accounts, fill in personal information and choose corresponding identity.

3.2 Team Creation

Mentors can create teams in the "My Team" list on the personal central page on MakeX official website. To create a team, members need to prepare the name, the logo, the slogan and the introduction to the team and select school (or organization) and the country.

Once the team name is filled in, it cannot be modified.

3.3 Team Management

Mentors can find teams successfully created in the "My Team" list on the personal central page on MakeX official website, and modify the basic information of the team, but team name and team number automatically generated by the system cannot be modified. Team's historic achievements will be shown in the "Record Data" list, which can be public or private in privacy setting. Mentors can add the registered contestants through E-mail address on the team management page. Contestants of the same team can be replaced in different seasons.

3.4 Competition Application

Mentors can access the registration page from the "Event List" on the personal central page or the home page of MakeX official website. Application will be completed after filling in the registration information and paying the application fee.

3.5　Competition Management

Mentors can manage the competitions applied by the team in the "My Competitions" list on the personal central page.

4.   Competition Procedure

4.1   Agenda

The agenda of each competition will be determined according to the actual situation. Teams need to complete the onsite registration and inspection before the start of the competition.

4.2   Onsite Registration

When a team arrives at the venue, the mentor should show the ID cards (or passport) to the staff on onsite registration and get the competition materials. The mentor should inform the team members about the fire evacuation passage, match schedule, arena, practice field and pits area etc..

4.3   Inspection

Robots can participate in practice match and formal competition only after passing the inspection. The inspectors will strictly check the safety of robots according to the inspection requirements. Teams can use the " MakeX Starter Robot Self-Check List " to check robots in advance. If inspection fails, the team need to adjust their robots and check again until they pass the inspection.

4.4   Engineering Notebook Submission

Electronic engineering notebook: After successful competition application, teams can access the registration page from the "Event List" on the personal central page need to check competition and upload the engineering notebook. Teams need to upload the RAR file package involving source programs, team photos, robot photos and production photos before the onsite registration date.

Paper engineering notebook: As the Courageous Traveler requires the presentation process, 2 copies of the paper version shall be submitted by each team to the judges at the presentation site.

For details of the engineering notebook writing guideline, please refer to" Appendix :

Engineering Notebook Guideline".

4.5 Presentation

MakeX encourages contestants to develop their creativity and skills of making robots and to master the robotic theories through participating competition. The presentation takes about 10 minutes, using the methods of Q&A and onsite problem-solving to examine students' knowledge level of robots. All team members must participate together. Mentors are not allowed to accompany them during the presentation.

Each team should arrive at the presentation room on time, with 2 copies of engineering notebook and the robot. All team members must be present together.

The presentation with full points of 30, will examine the robotic theories from three dimensions: basic robot theory(12 points), mechanism & programming(12 points), innovation(6 points).

The judges will ask questions or require onsite operation demonstration. Teams can obtain different total points (30,25,20,15) according to their onsite performance. The presentation points result will be shown on the MakeX official website after Qualification Round. Teams obtaining only 15 points in the presentation will not be able to enter the Elimination Tournament.

There shall be no irrelevant person offering guidance during the presentation and the teams shall not bring any electronical communication device to ask for help. The teams will only obtain 15 presentation points if situations above are found.

4.6 Pits Area Decoration

Each team has its own space in pits area, where teams can make decoration, publicize and canvas their teams for the Team Culture Award.

Teams can rest and debug robots at the pits area, so please keep the area clean and tidy.

4.7 Pre-competition Communication Meeting

Before the start of competition, the committee will convene a meeting with all team operators to specify what needs to be paid attention to and under which circumstance participants will get penalty.

Only operators in each team need to attend this meeting, without carrying the robot.

4.8　Schedule Announcement

The MakeX Committee will announce the match schedule at least 30 minutes ahead the start of formal competition through online official website and offline channels such as bulletin boards, screens and other channels onsite.

4.9　Practice Match

Teams can participate in the practice match after completing onsite registration and inspection. The specific arrangement of the practice match is based on the announcement onsite. Teams need to queue up for the practice match.

4.10　Qualification Round

Each team is requested to participate in 4 matches during Qualification Round. Points will be obtained according to the winning or losing situation. Each match is conducted in the form of alliances confrontation. Each alliance consists of 2 teams. Each team's ally and the opponents will be allocated randomly by the system.

In each match, the two teams of the winning alliance will score 30 winning points respectively, and the two teams which end in a draw with the opponents will score 10 winning points respectively. Two teams of the losing alliance will score 0 winning point. The ranking points are the sum of the winning points in 4 matches plus the presentation points. Top-ranking teams will be advanced to the Elimination Tournament. If there are teams with same ranking points, the ranking sequence will be determined according to the following rules:

1) Compare the total automatic stage points obtained in the 4 matches. The higher the points, the higher the ranking.

2) If the above conditions are the same, compare the total competition points obtained in the 4 matches. The higher the points, the higher the ranking.

3) If the above conditions are the same, compare the total net competition points obtained in the 4 matches. The higher the points, the higher the ranking.

4) If the above conditions are the same, an additional match will be held. The winner will be the team with the higher total competition points. If both teams obtain the

same total competition points, the winner will be the team with higher automatic stage points. The additional match will continue if the automatic stage points are the same again.

4.11 Alliance Selection

Advanced teams select the alliance in turn according to the ranking points after the Qualification Round. The teams ranking the top 50% have the right to refuse when they are selected, and the teams ranking the bottom 50% have no right to refuse.

The alliance formed in this section will be fixed during the Elimination Tournament. After the alliance selection, alliance teammates will have 30 minutes to communicate with each other.

The advanced teams who are not present before the start of alliance selection are deemed as voluntary quitting the option, and the advanced teams who are not present before the end of the alliance selection are deemed as voluntary quitting the Elimination Tournament.

If it occurs that the advanced teams quit the Elimination Tournament, the promotion places will be given to the following teams according to the ranking points after the Qualification Round.

Promotion proportion：

Number teams: 101 or more   Number of advanced teams: 64

Number teams: 51-100   Number of advanced teams: 32

Number teams: 26-50   Number of advanced teams: 16

Number teams: 13-25   Number of advanced teams: 8

Number teams: 6-12   Number of advanced teams: 4

4.12 Elimination Tournament

In Elimination Tournament, each alliance consisting of 2 fixed teams confronts opponent randomly. There will be 3 sessions in each match. The alliance who achieves ＂2 wins＂, or ＂1 win and 2 ties＂, can rise to the next round until champion, runner-up and second runner-up are selected.

If the alliance achieves ＂1 win, 1 lost, 1 tie＂ or ＂3 ties＂, the winning alliance will be decided according to the following rules:

1) Compare the total automatic stage points obtained in 3 sessions. The higher the points, the higher the ranking.

2) If the above conditions are the same, compare the total competition points obtained in 3 sessions. The higher the points, the higher the ranking.

3) If the above conditions are the same, compare the total net competition points in 3 sessions. The higher the points, the higher the ranking.

4) If the above conditions are the same, an additional match will be held. This match only takes one session. The winner will be the alliance with the higher total competition points. If both alliances obtain the same total competition points, the winner will be the alliance with higher automatic stage points. The additional match will continue if the automatic stage points are the same again.

5. Awards

5.1 Champion，Runner-up，Second Runner-up

The competition includes Qualification Round and Championship Round, the champion alliance, runner-up alliance and second runner-up alliance are decided according to the ranking results of the competition.

5.2 Awards Focusing on Technology

Appearance Design Award

The Appearance Design Award will be awarded to the team whose robot is creative, innovative and artistic. The committee encourages teams to break the shackles of thinking, show their robots of unique design and structure, and create a perfect fusion of aesthetics and technology with their own hands.

Evaluation criteria:
1) The robot appearance design is artistic and ornamental.
2) The robot appearance design is innovative, concise, practical and distinctive to those robots of other teams.
3) The engineer notebook must include clear and detailed contents of the appearance design of robot.

Engineering Notebook Award

Engineering notebook helps teams to establish files and better record the whole learning process. Every improvement of the robots should be recorded from prototype design, building robot, to the final debugging. The award will be awarded to the team with high-quality engineering notebook.

Evaluation criteria:
1) The content of engineering notebook is detailed, well-organized and extraordinary in the core sections.
2) The engineering notebook is well-made, with creative content and layout design.

Best Automatic Program Award

The Best Automatic Program Award will be awarded to the team accomplish the programming independently and performs well with excellent points result at Automatic

Stage.

Evaluation criteria:

1) Team performs well with excellent points result at Automatic Stage.
2) The engineer notebook must include clear and detailed contents about programming, which helps to show the team's programming capabilities.

Alliance Collaboration Award

MakeX is not only a competition of technical strength, but also a test of the competition strategy and execution ability of team collaboration. This award is given to teams that perform well in competition strategy and team collaboration.

Evaluation criteria:

1) The teams whose competition strategies are novel and unique, with surprise move.
2) The team should know its ally's technical characteristics and set up various cooperation strategies for allies.
3) The engineer notebook must include clear and detailed contents of collaboration strategies.

Best Modification Award

The Best Modification Award will be awarded to the team that modify their robots in the Modification Stage with great substantial improvement, which makes effective impact on final match results. The Modification Stage will examine the ability of improvising, strategy choices and tactics execution.

Evaluation criteria:

1) The team modify their robots effectively in the Modification Stage with great substantial improvement.
2) The points obtained at the Final Stage is raised significantly owing to the modification of robot.
3) The teams who is highly collaborative and execute efficiently.
4) The engineer notebook must include clear and detailed contents of robot modification.

Technology Innovation Award

Innovation is always of most importance for a team to develop sustainably. The Technology Innovation Award will be awarded to the teams who break the shackles of traditional thinking and achieve innovation & technology breakthrough. This award will be only for teams participating in Courageous Traveler.

Evaluation criteria:

1) Teams achieve excellent performance during presentation, comprehensively demonstrate the various technology design advantages and innovative principles of the robot, which are highly praised by the judges.

2) The engineer notebook must include clear and detailed contents about innovation & technology breakthrough, which helps to show the advantages and distinctive functions of the robot.

5.3   Awards Focusing on Culture & Spirit

Roadshow Award

This award will be awarded to the team who actively shares experiences in making robot, creatively displays team culture building, and receives the highest score from judges during the Roadshow.

Evaluation criteria:

1) Presentation richness: Evaluate teams' well prepared materials for the roadshow (PPT, video, etc.) and encourage teams to display activities and robot production comprehensively in a limited time.

2) Onsite display and expression: Encourage teams to creatively display their project and team spirit with clear thinking, fluent expression at the stage.

Team Culture Award

MakeX Robotics Competition advocates the unique team culture. Teams can display their team culture in various ways, such as designing the team posters, flags, badges, etc. They can also design their own gifts for communicating with others.

Evaluation criteria:

1) The team who actively displays team culture in the pits area, actively communicates with others and gets to know new teams.

2) The team who shows team style through various forms such as posters, flags, emblems, badges and wins unanimous praise from other teams and staff.

Competition Spirit Award

The Competition Spirit Award will be awarded to teams who have strong competition spirit and maintain equity and justice of competition.

Evaluation criteria:

1) The teams should civilly participate in competitions, respect the referees, comply with competition rules and initiatively maintain equity and justice of competition.

2) The teams should show everyone their positive energy and spirit of "gaining

without pride, losing with grace", and keep calm when meeting contradictions and conflicts.

3) The teams should be proactive and collaborative, be willing to help and offer assistance to other teams in trouble.

Outstanding Mentor Award

The award is given to mentors who achieve good teaching effects and lead teams to get excellent competition results.

Evaluation criteria:

The mentors should lead teams to achieve excellent results, awards and honors.

5.4   Rookie Award

The award is awarded to the top ranking rookie team (the teams newly registered in 2019) in the Qualification Round of 2019 MakeX World Championship.

5.5   Ambassador Award for Promoting MakeX

The core spirits of MakeX are Creativity, Teamwork, Fun and Sharing. MakeX encourages young people to learn, communicate and exchange actively. Whether they are teammates or opponents, MakeX hopes that all contestants could learn from each other, grow up, gain friendship and enjoy happiness. The award will be given to individuals who actively promote MakeX Robotics Competition in 2019, publicize MakeX culture and practice the spirit of MakeX Robotics Competition. This award is only awarded in 2019 MakeX World Chamionship.

Evaluation criteria:

1) The individuals who actively participate in MakeX Robotics Competition throughout the 2019 season.

2) The individuals who are willing to initiatively promote MakeX Robotics Competition in social media, community, forum and other platforms, and publicize the spirit of the MakeX: Creativity, Teamwork, Fun and Sharing.

3) Teams need to submit for this award. For the application method, please refer to "2019 MakeX Robotics Competition Annual Awards Application Guide " which will be announced subsequently.

5.6 MakeX Outstanding Team Award

MakeX advocates that young people create in teamwork and grow up in sharing. Through the exciting and challenging competitions, MakeX is committed to guide young people to learn science, technology, engineering, art and mathematics and apply such knowledge in solving practical problems, as well as inspire people's enthusiasm for creativity, sharing, and collaboration. This award will be given to the team who is fastest growing with most comprehensive strength in 2019. This award is only awarded in 2019 MakeX World Chamionship.

Evaluation criteria:

1) The team who actively participates in MakeX Robotics Competition throughout the 2019 season, with excellent competition results.

2) The team who has spirit of scientific-exploiting, attaches importance to the teamwork, and constantly makes technological and innovative breakthroughs.

3) The team who actively builds team culture, initiatively promotes MakeX Robotics Competition in social media, community, forum and other platforms, and publicizes the spirit of the MakeX: Creativity, Teamwork, Fun and Sharing.

4) The team should have good succession of knowledge and skills, deposit of culture and cultivation of new members, with reasonable division and operating model.

5) Teams need to submit for this award. For the application method, please refer to "2019 MakeX Robotics Competition Annual Awards Application Guide " which will be announced subsequently.

5.7 MakeX Outstanding Leadership Award

Outstanding Leadership Award will be awarded to outstanding individual who has excellent management ability and creation spirit, willing to share knowledge and skills, leading teams to get good competition results. At the same time, the individual should bring happiness for team, help team members to achieve personal ideals, align personal goals with team goals. This award is only awarded in 2019 MakeX World Championship.

Evaluation criteria:

1) The individual who has integrity and honesty, good moral character and spirit of continuous scientific exploration.

2) The individual with excellent team management ability, should make outstanding personal contribution to the team and lead the team to achieve excellent results.

3) The individual who is willing to share and promote the spirit of the MakeX Robotics Competition: Creation, Teamwork, Fun and Sharing in various forms.

4) Teams need to submit for this award. For the application method, please refer to "2019 MakeX Robotics Competition Annual Awards Application Guide" which will be announced subsequently.

5.8   Champion, Runner-up, Second Runner-up of Annual Points

Annual Points Champion, Annual Points Runner-up, Second Runner-up of Annual Points will be awarded to the top three teams according to the ranking of team's annual points in 2019 season.

5.9   Top Eight of Annual Points

Top Eight of Annual Points will be awarded to the teams from the 4th place to 8th place according to the ranking of team's annual points in 2019 season.
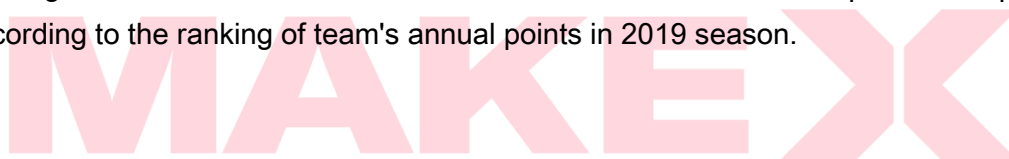
6. 2019 Season Plan

In 2019 season, there will be Points Race and 2019 MakeX World Championship. Teams obtaining enough annual points in the Points Race will get qualified to compete in the 2019 MakeX World Championship.

6.1 Points Race

According to the number of teams, the competition is divided into 5 types: A, B, C, D, E. The points that teams can obtain vary from 30 to 180 according to the ranking results.

The ranking sequence for the advanced teams is based on the ranking sequence of Elimination Tournament. All other teams are ranked according to the ranking sequence of Qualification Round.

The specific points are as the below table:

Obtain Annual Points	180	150	140	130
A (6-12)	\	\	\	\
B (13-25)	\	\	\	Champion Alliance
C (26-50)	\	\	Champion Alliance	Runner-up Alliance
D (51-100)	\	Champion Alliance	Runner-up Alliance	Second Runner-up Alliance
E (101-200+)	Champion Alliance	Runner-up Alliance	Second Runner-up Alliance	Top 4 Alliance

Obtain Annual Points	100	80	70	50	40	30
A (6-12)	Champion Alliance	\	\	Runner-up Alliance	\	5-12
B (13-25)	Runner-up Alliance	Second Runner-up Alliance	Top 4 Alliance	9-16	\	17-25

C（26-50）	Second Runner-up Alliance	Top 4 Alliance	Top 8 Alliance	17-32	\	33-50
D（51-100）	Top 4 Alliance	Top 8 Alliance	Top 16 Alliance	\	33-64	65-100
E（101-200+）	Top 8 Alliance	Top 16 Alliance	Top 32 Alliance	65-100	\	101-200

* Various types are based on the number of the teams. The range of the number of teams is shown in the parentheses.

6.2   2019 MakeX World Championship

In Qualification Round of the 2019 MakeX World Championship, teams are divided into different groups according to their annual points ranking. According to the number of the teams and the promotion proportion, teams ranking in the top of each group will be advanced correspondingly.

Take 27 teams as example:

Group	A	B	C	D
	1	2	3	4
	8	7	6	5
	12	11	10	9
Annual points ranking	16	15	14	13
	20	19	18	17
	24	23	22	21
	……	27	26	25

Each team will participate 4 matches within the group, which means each team's ally and the opponents will be allocated randomly in the same group. The ranking sequence of each group will be based on the sum of the total winning points and the presentation points. Top 4 of each group will be advanced to the Elimination

Tournament.

6.3　Additional Annual Points for Single Awards

Teams who win the single awards in Points Race can obtain additional annual points. One team can accumulate annual points from two or more single awards.

Teams can obtain 20 annual points by awarding one Award Focusing on Technology. Teams can obtain 10 annual points by awarding one Award Focusing on Culture & Spirit. Teams cannot obtain additional annual points by awarding The Outstanding Mentor Award.

7.　Arbitration and Appeal

7.1　Results Confirmation

E1.　**Results confirmation:** When a single match ends, captains of both teams need to confirm the results with the referees and then sign the results form. Both teams shall not have any objection to the results of this single match after their signatures.

E2.　**Dispute settlement:** If the captains do not accept the results presented by the referee, they can reject to sign the results form. Instead they need to write clearly about the situation on the remarks part of the results form and sign there.

7.2　Appeal Procedure

E3.　**Appeal requirements:** Appeals should be lodged within the ″valid appeal period″ in accordance with the prescribed procedure and the civil participation spirit.

E4.　**Appeal procedure:** The captain of the team needs to fill in the Appeal Form, then cooperates with the Arbitration Commission to investigate the real situation. Both sides will be required to arrive at the designated place if the Arbitration Commission requires. During the investigation, the captain of the appeal team must be present, and only captains or contestants of both

teams can be present. The Arbitration Commission has the right to communicate with the appellant contestant alone, avoiding the mentor, the parents of the contestants, their relatives or friends. The appellant contestant should express facts clearly and objectively, not being over-emotionally.

7.3   Valid Appeal Period

E5.   **Valid appeal period:** Normally appeal should be lodged within 30 minutes after the end of competition. Please check Program Brochure for specific effective appeal period before competition.

E6.   **Validity of presence:** The appellant and the respondent must be present at the designated place on time.

E7.   **Appeal response:** Normally the Arbitration Commission responds to the appeal after the end of the competition on the same day or before the start of the competition on the next day.

7.4   Appeals Out of the Stipulation

E8.   **Overdue appeal:** Appeals that are not lodged within the "valid appeal period" will be considered invalid and inadmissible.

E9.   **Appeals for overtime presence:** If the appellant fails to be present on time or leaves without any reason during the investigation, the appeal will be considered invalid. If the respondent fails to be present on time, the Arbitration Commission will directly determine the arbitration result and render it as final result.

R1.   **Presence of extra persons out of the stipulation:** In case such persons as the parents, mentors of the appellants participate in the arbitration process without permission from the Arbitration Commission, the Arbitration Commission will warn the team in violation.

⊘   In case multiple warnings fail, there will be a disqualification.

R2.   **Appeal's requests are not clear:** If the Arbitration Commission cannot understand the appeal or conduct the normal investigation due to the emotion factor, the Arbitration Commission will warn the team.

⊘   In case multiple warnings fail, there will be a disqualification.

R3.   **Uncivil appeals:** Neither side shall make uncivil acts nor offensive behavior and words.

⊘   In case multiple warnings fail, there will be a disqualification.

R4.   **Appeals from other persons:** The appellant must be the contestant of the team, and the appeals from other persons will not be accepted.

⊘   In case multiple warnings fail, there will be a disqualification.

7.5   Arbitration Procedure

E10.   **Arbitration Procedure:** The Arbitration Commission consists of the chief referee, the arbitration consultant and the technical responsible person of the competition. The Arbitration Commission is responsible for accepting the appeals and conducting arbitration investigations, to ensure the smooth progress of the competition and the fairness and justness. The playback videos and photographs of any competition may be inaccurate due to the shooting angle, which are only used as reference but not arbitration evidence.

E11.   **The arbitration results:** The arbitration results can be divided into "maintaining the original result of the match" or "re-match" between the two teams and the two teams shall not appeal again.

E12.   **Additional remarks:** The Arbitration Commission determines the final arbitration result, and neither side shall dispute the result of the appeal anymore.

E13.   **Implementation of the arbitration result:** If the arbitration result is a "re-match" between the two teams, the two teams shall have a re-match according to the time and arena stipulated in the Appeal Form. If either team fails to reach the arena within 5 minutes after the start of match, the team shall be deemed to quit the match.

8.   Competition Statement

8.1   Update of Competition Documents

The official documents and files are including but not limited to Competition Guide, Equipment Guide Book, Rule Video provided by the MakeX Committee. Contestants are obliged to pay attention to the updates of these documents and files before the competition. Any problem caused by the contestants not keeping up with updates of the documents and files are borne by the contestants themselves. All the official documents and files will be updated on the MakeX official website www.makex.io.

Competition Guide

The MakeX Robotics Competition Committee reserves the right to revise and improve the Competition Guide during the whole season. Contestants and mentors can download the latest version from the MakeX official website.

Q&A and Sharing

All contestants, mentors and any robot enthusiast can raise questions or share their experiences on social media platforms. Anyone posting messages and replying should abide by the network ethics. Online speeches that are out of the stipulation will be banned or deleted.

8.2   Qualification Statement

The MakeX Committee reserves the right to disqualify any contestant for any reason, including but not limited to failing to meet safety or technical requirements, seriously violating the spirit or fairness of the competition.

8.3   Copyright Declaration

Shenzhen Hulu Maker Co., Ltd. reserves the copyright of this Competition Guide. Without the written consent or authorization from Shenzhen Hulu Maker Co., Ltd, any entity or individual may not reproduce, including but not limited to any network media, electronic media or written media.

8.4 Disclaimer

All contestants in 2019 MakeX Robotics Competition shall fully understand that safety is the most important issue for the sustainable development of MakeX Robotics Competition. To protect the rights and interests of all contestants and organizers, according to relevant laws and regulations, all contestants registered for the 2019 MakeX Challenge - Courageous Traveler, shall acknowledge and abide by the following safety provisions:

Contestants shall take adequate safety precautions when constructing the robots, and all parts used for constructing the robots shall be purchased from legal manufacturers. Contestants shall ensure that the structural design of the robots takes into account the convenience of the inspection and actively cooperate with the host of the competition.

When modifying and using the parts with potential safety hazards for the robots, it must conform to the national laws, regulations and quality & safety standards. Those operations shall be manufactured and operated by persons with relevant professional qualifications.

During the competition, the teams shall ensure that all the actions such as construction, testing and preparation will not do harm to their own team and other teams, referees, staff, audiences, equipment and arenas.

In the process of construction and competition, if any action that may violate the national laws, regulations or standards occur, all consequences will be borne by the contestants themselves.

The competition kits and parts sold and provided by the supporter, Shenzhen Makeblock Co., Ltd., shall be used in accordance with the instructions. Shenzhen Makeblock Co., Ltd. and MakeX Committee will not be responsible for any injury or loss of property caused by improper use.

8.5 Competition Guide Statement

The official language for MakeX is Chinese. English or other language translations are prepared to facilitate the team's preparation process. All documents translated to English are for reference only.

The MakeX Robots Competition Committee reserves the final interpretation of MakeX Robots Competition – Competition Guide for Courageous Traveler.

Appendix : Engineering Notebook Guideline

2019 MakeX Robotics Competition

Engineering Notebook Guideline

*Instruction:

1. **The value of engineering notebook**: It helps the team establish files and record the whole learning process. Therefore, the record of engineering notebook should run through the whole preparation process for the competition.

2.**Engineering notebook submission**: Teams can use online documents or handwriting. No matter which way to use, each team must submit a paper version onsite.

1) **Electronic engineering notebook:** After successful competition application, teams can access the registration page from the "Event List" on the personal central page need to check competition and upload the engineering notebooks. Teams need to upload the RAR file package involving source programs, team photos, robot photos and production photos before the onsite registration date.

2) **Paper engineering notebook:** As the competition programs (Courageous Traveler & Strong Alliance) require the presentation process, 2 copies of the paper version shall be submitted by each team to the judges at the presentation site. If there is no presentation process (City Guardian), teams will need to submit 1 copy of the paper version to the staff at inspection area.

3. Engineering notebook will be required for the evaluation of all awards focusing on technology. Please refer to the Competition Guide for the evaluation criteria of each award.

Basic Requirements of Cover

The team name, team number and competition program must appear on the outside cover of the engineering notebook.

Basic Requirements of Contents

1. Directory contents

Creating directory contents brings convenience for the presentation judges to review and quickly find the corresponding section.

2. Process records

Every improvement of the robots should be recorded from prototype design, building robot, to the debugging. **Keep pictures of all manuscripts, design drawings, calculation process, circuit diagrams, etc., and insert them into engineering notebook.**

1) Schedule of robot building progress

2) Design inspiration/sketch

3) Technical principle (it can be disassembled into different parts)

4) Production step by step (with clear pictures)

5) Problems encountered and solutions

Examples of problems:

What technical failures did you encounter? Why did you fail? How did you solve the problems finally?

What efforts have you made for the robots? What improvements have been achieved?

Does your project progress schedule go as planned? What accidents or delays have occurred? How to fix it?

Have there been any dispute among the team members? How to settle it?

3. Projects summary

1) The structure and function of the project (with pictures and text enclosed)

2) The technical innovations of project

3) Competition strategies for scoring and defense

4. Team introduction

1) Brief biography of each team member and their role on the team.

2) Culture displaying (logo, team flag, slogan, posters, T-shirt, etc.)

3) Excellent achievements sharing (Stories)

5. Feelings and other things you want to share (optional)

1) Achievement in competition (Technical)

2) Growth in the competition (Spiritual)

3) Suggestions for competition

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