

2018 MakeX World Championship Program Brochure

MAKE X

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November 2018

Compiled by the MakeX Robotics Competition Committee

<http://www.makex.cc/en/>

1. Matters Needing Attention

1. Teams need to finish the registration, inspection and presentation in Guangzhou Nansha Stadium on December 6th (9:00-21:00) (Presentation is not required for teams from MakeX Starter-Blue Planet, but teams need to submit two hard copy engineering notebooks on the spot)
2. There is “Technical Challenges” for Blue Planet competition after qualifying round, teams can sign up at the registration on 6th. For more details of Technical Challenge, please refer to Chapter 2.4.
3. If you cannot reach the venue on time on December 6th, please contact Miya Yan in advance to inform her your itinerary (Email: miya.yan@makeblock.com / Phone Number & WhatsApp: +86 13692220601), the organizing committee will support you accordingly.
4. There is a roadshow section in this competition. Teams can apply to participate if they want. For more details, please check out Chapter 4.
5. Please read the competition Rule carefully and ensure components including Motor, Servo and the size of robot meets the requirements listed in the Rules.
6. All contestants have to wear goggles in this competition, otherwise he/she is not allowed to enter the field. The example of goggles is shown in the picture below, please buy goggles in advance.



7. Sapling props have been updated for the Tree Planting in Desert task. For sapling comparison, please refer to the image shown below:



8. There are various awards in this competition. Please check Chapter 5 for details.

9. During the qualifying stage, alliance is selected randomly and is ranked by the sum of qualifying scores. Please check the updated version of Rule for details.

10. All rules and regulations of this competition are subject to the latest published 1.3-version Rule, for any detailed information, please read the Rule carefully.

2. Competition System and Alliance Rule

Alliance rule is adopted in three main programs of 2018 season (Blue Planet, Interstellar Exploration, Siege and Guard), that is, two teams form an alliance to complete the competition.

2.1 Qualifying round

All teams should attend four Qualifyings. Alliance is assigned randomly. Teams

are ranked by the sum of four Qualifying scores, then the top ranked teams in the Qualifying enter the Championship Match round.

1) If the total scores of teams are the same in Qualifying's, the team with the higher independent task scores of four Qualifying will rank higher in the list.

2) If the sum of independent task scores is still the same, the team which spent the shortest time in finishing four Qualifying will be put on the top of the list.

2.2 Alliance selection

After qualifying round, the number of teams qualified for the Championship match will be distributed based on the following rules:

Qualifying Round: 101 and above Championship Match: 64

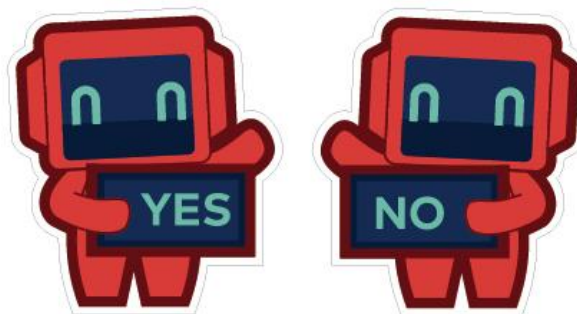
Qualifying Round: 51-100 Championship Match: 32

Qualifying Round: 26-50 Championship Match: 16

Qualifying Round: 26 and below Championship Match: 8

Qualified teams ranking the top 50% have the priority to choose their own alliance teammates for the Championship in sequence, also they have the right to refuse if been chosen, while the bottom 50% teams have to accept. The alliance formed in this stage will form a fixed alliance until the end of the competition.

In the alliance selection, team qualified for Championship Match need to choose their alliance on the stage. The host will guide teams to choose alliance team in sequence. The chosen teams can raise "YES" or "No" card to show their decision. The rejected team needs to reselect the alliance. We encourage teams to have pre-communication before alliance selection. The "YES" and "NO" cards are shown in the picture below.



Please follow the schedule and participate in alliance selection on time. In order to avoid the situation that the alliance selection cannot be carried out due to the absence of some teams, here are some important notifications:

1. Teams who do not show up on time cannot exercise the right of choice and the right of refusal in the alliance selection part.
2. In the absence of one team, the option will be given to the next team according to the rank of qualifying scores.
3. When there is only one team left on the field, this team will have the option to choose any team who is not present as an ally, and the selected team will not have the right to refuse.
4. For the remaining teams who are not present, the Organizing Committee will form two teams into one alliance in accordance with the order of rank in the qualifying.

2.3 Championship

Ranking of Championship Match: each team is required to choose an alliance in the Alliance-Selection-Ceremony and then, compete three single-session with the same alliance during the Championship Match. Only the highest score among the three single-sessions will be chosen as final score of Championship Match for two alliance teams.

- 1) Ranking of teams is according to the score of Championship Match.
- 2) If multiple teams have same final score, the team with higher alliance task score will rank higher on list.
- 3) If alliance task scores are still the same, the team spending less completing time will rank higher on the list.
- 4) If time is still identical and has impact on the ranking for top three teams, one or more extra matches are added for alliance teams.

2.4 Technical Challenge (Blue Planet)

Introduction of Technical Challenge — In order to encourage players to dig deeper into various tasks of the event, the organizing committee sets up a Technical Challenge in the Blue Planet competition. Teams did not achieve satisfying results in the qualifying can continue to look for teammates to accomplish all the tasks in the Technical Challenge.

In the Technical Challenge, all 11 tasks (7 independent tasks, 4 alliance tasks) in Blue Planet competition will be opened to the participating teams. Teams and alliance teammates have two chances to prove the alliance's technical prowess by challenging all the tasks and try to get the highest score in five minutes.

Sign up for Technical Challenge – Please fill in the Technical Challenge competition form at the registration desk, or register at information center in pits at the end of the qualifying round and before the alliance selection ceremony.

Alliance selection of Technical Challenge – Rules and methods of Technical Challenge alliance selection are the same as the alliance selection in qualifying. Qualified teams ranking the top 50% have the priority to choose their own alliance teammates for the Technical Challenge in sequence, also they have the right to refuse if been chosen, while the bottom 50% teams have to accept.

Technical Challenge Ranking – Technical Challenge will rank by taking the higher score in two rounds of competition (The alliance having the same score with other alliances but with higher alliance task score ranks higher. The alliance having the same alliance task score with other alliances but with shorter completion time

ranks higher). The alliances rank first, second and third win gold award, silver award and bronze award accordingly in Technical Challenge.

3. Competition Schedule

December 6th: registration, inspection, presentation

Time	Activity	Location	Notes
9:00-21:00	Registration	Pits (stadium deputy hall)	Collect the material package when signing up.
	Inspection		Please check whether the robot is in compliance with the Rules.
14:00-21:00	Presentation (Only for Interstellar Exploration and Siege and Guard)		Please sign up and line up in advance for the presentation.

December 7th: practice match, opening ceremony, qualifying

Time	Activity	Location	Notes
9:00-11:00	Opening ceremony	Stage area	All the players watch in the viewing area.
11:00-11:30	Pre-competition communication meeting	Competition area	Team leader participate in.

11:30-12:30	Practice match	Competition area	Line up to claim an entry number and enter into the arena when the number is called
12:30-13:30	Lunch & Break	Dining area	Dining area is at the entrance of pits.
13:30-14:30	Practice match	Competition area	Line up to claim an entry number and enter into the arena when the number is called
14:30-18:30	Qualifying round	Competition area	Inspection is required before every round.

Reminder: teams should pay attention to qualifying round combat table published by the organizing committee at 11:00 to get in touch with the teammates and communicate strategies as well as tactics in advance.

December 8th: qualifying round, alliance selection ceremony, elimination tournament, knockout challenge

Time	Activity	Location	Notes
9:00-12:00	Qualifying round	Competition area	Enter the field after inspection
12:00-13:30	Lunch & Break	Dining area	Dining area is at the entrance of pits.

13:30-15:00	Alliance selection ceremony	Stage area	All teams watch in the viewing area.
15:00-16:00	Technical Challenge (Blue Planet) Knockout Challenge (Interstellar Exploration and Siege and Guard)	Competition area	Enter the field after inspection at the information desk
16:00-18:30	Technical Challenge (Blue Planet) Elimination Tournament (Interstellar Exploration and Siege and Guard)	Competition area	Enter the field after inspection at the information desk

December 9th: semifinal, championship, awarding ceremony

Time	Activity	Location	Notes
9:00-10:00	Championship (Blue Planet) Knockout Challenge Semi-final (Interstellar Exploration and Siege and Guard)	Competition area	Inspection is required to enter the field before each round
10:00-11:00	Championship (Blue Planet) Semi-final (Interstellar Exploration and Siege and Guard)	Competition area	Inspection is required to enter the field before each round

11:00-12:00	Championship (Blue Planet) Knockout Challenge Final (Interstellar Exploration and Siege and Guard)	Competition area	All participating teams must receive the prizes on site . The organizing committee will not mail the prizes .
12:00-13:30	Lunch & Break	Dining area	Dining area is at the entrance of pits.
13:30-14:00	Third Place Match (Interstellar Exploration) Championship (Blue Planet)	Competition area	Inspection is required to enter the field before each match
14:00-14:30	Championship (Interstellar Exploration) Championship (Blue Planet)	Competition area	All participating teams must receive the prizes on site . The organizing committee will not mail the prizes .
14:30-15:00	Third Place Match (Siege and Guard) Championship (Blue Planet)	Competition area	Inspection is required to enter the field before each

			round
15:00-15:30	Championship (Siege and Guard) Championship (Blue Planet)	Competition area	Inspection is required to enter the field before each round
15:30-16:30	Roadshow	Main stage	
16:30-17:30	Closing ceremony, awarding ceremony	Main stage	

4. Roadshow

Introduction of the roadshow – MakeX is a platform to encourage all teams to innovate and share. We hope that teams with major innovation and technical breakthroughs in programming and structural design will step onto the stage and share their ideas with teams from all over the world, so as to achieve mutual benefit and common progress.

Roadshow is specially set for teams to compete for Open Source Innovation Award.

Participation method – teams are required to send an e-mail to the organizing committee's mailbox before November 28th. The email includes roadshow video (about 5 minutes), roadshow PPT and team engineering notebook. And the file name is "team number - group - roadshow", for example: "X10001-Blue Planet (primary group) - roadshow".

Email address: makex@makeblock.com

First round of evaluation - the organizing committee gives the score out of 100 based on the roadshow video and the related contents of competitors regarding aspects

such as technical strength, innovation and speech ability. The results will be announced on MakeX official Facebook Page around November 30th.

Speech on site – The top two teams in each program group will get the chance to show their core technology to teams from all over the world during the Championship. Through the final selection of the judges, the winning teams will be honored with the Open Source Innovation Award.

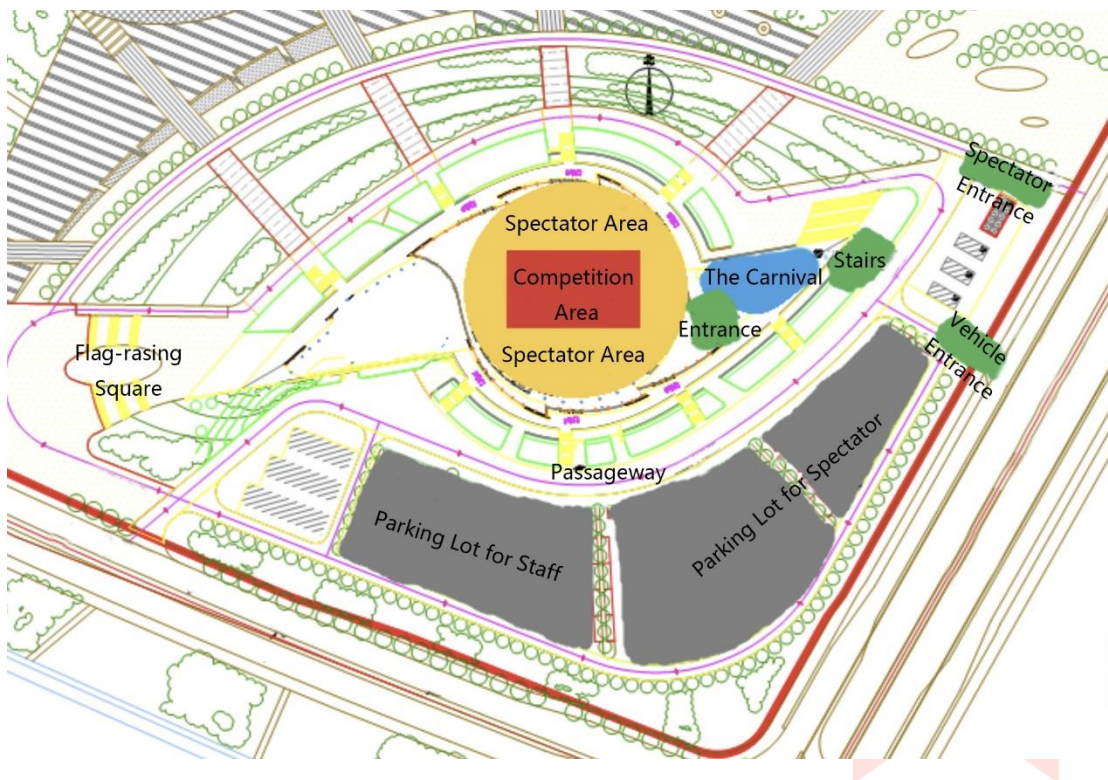
5. Awards

Award	Criteria for selection
2018 MakeX World Champion	Champion in each program
2018 MakeX Runner-up	Runner-up in each program
2018 MakeX Second Runner-up	Second runner- up in each program
Gold Medal in Knockout Challenge	Winner in knockout challenge
Silver Medal in Knockout Challenge	Second place in knockout challenge
Bronze Medal in Knockout Challenge	Third place in knockout challenge
Gold Medal in Technical Challenge Competition	Alliance ranking top in technical challenge competition
Silver Medal in Technical Challenge Competition	Alliance ranking second in technical challenge competition
Bronze Medal in Technical Challenge Competition	Alliance ranking third in technical challenge competition
Best Design Award	The robot's appearance looks good and unique
Technological Innovation Award	Show innovation in engineering notebook and presentation part

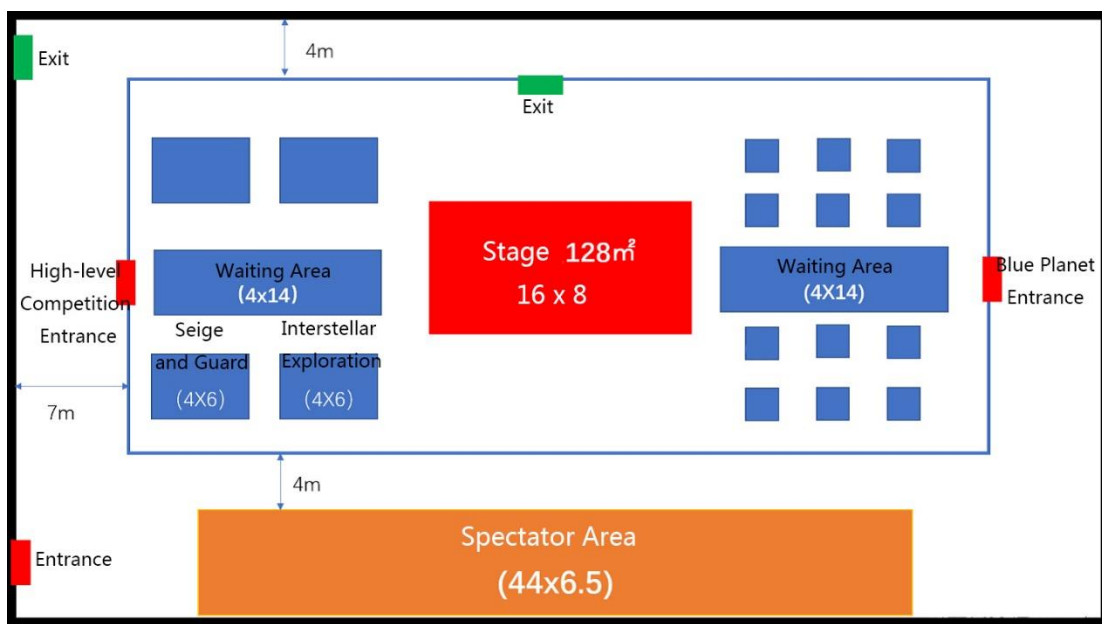
Dark Horse Award	A team making the greatest progress in the Championship
Best Teamwork Award	Show team spirit
Morality Award	Present a good team image
Winner in Annual Scores (For Chinese Teams Only this Year)	Rank first in the annual points table
Runner-up in Annual Scores (For Chinese Teams Only this Year)	Rank second in the annual points table
Second runner-up in Annual Scores (For Chinese Teams Only this Year)	Rank third in the annual points table
Top eight in Annual Scores (For Chinese Teams Only this Year)	Rank fourth to eighth in the annual points table
Sportsmanship Award	Match the spirit of the competition
Best Program Award	Highest score in automatic stage of high-level competition
Best New Player Award (Only for Interstellar Exploration and Siege and Guard)	New player team - highest score in qualifying round
Open Source Innovation Award	Highest score in roadshow
Best Modification Award	Team made the best modification on robot
Outstanding Mentor Award	Mentor of teams made outstanding achievement
Outstanding Leadership Award	Outstanding in all aspects, a unique award only for one person

7. Appendix

7.1 Aerial View Venue



7.2 Competition Area



7.3 Pits

