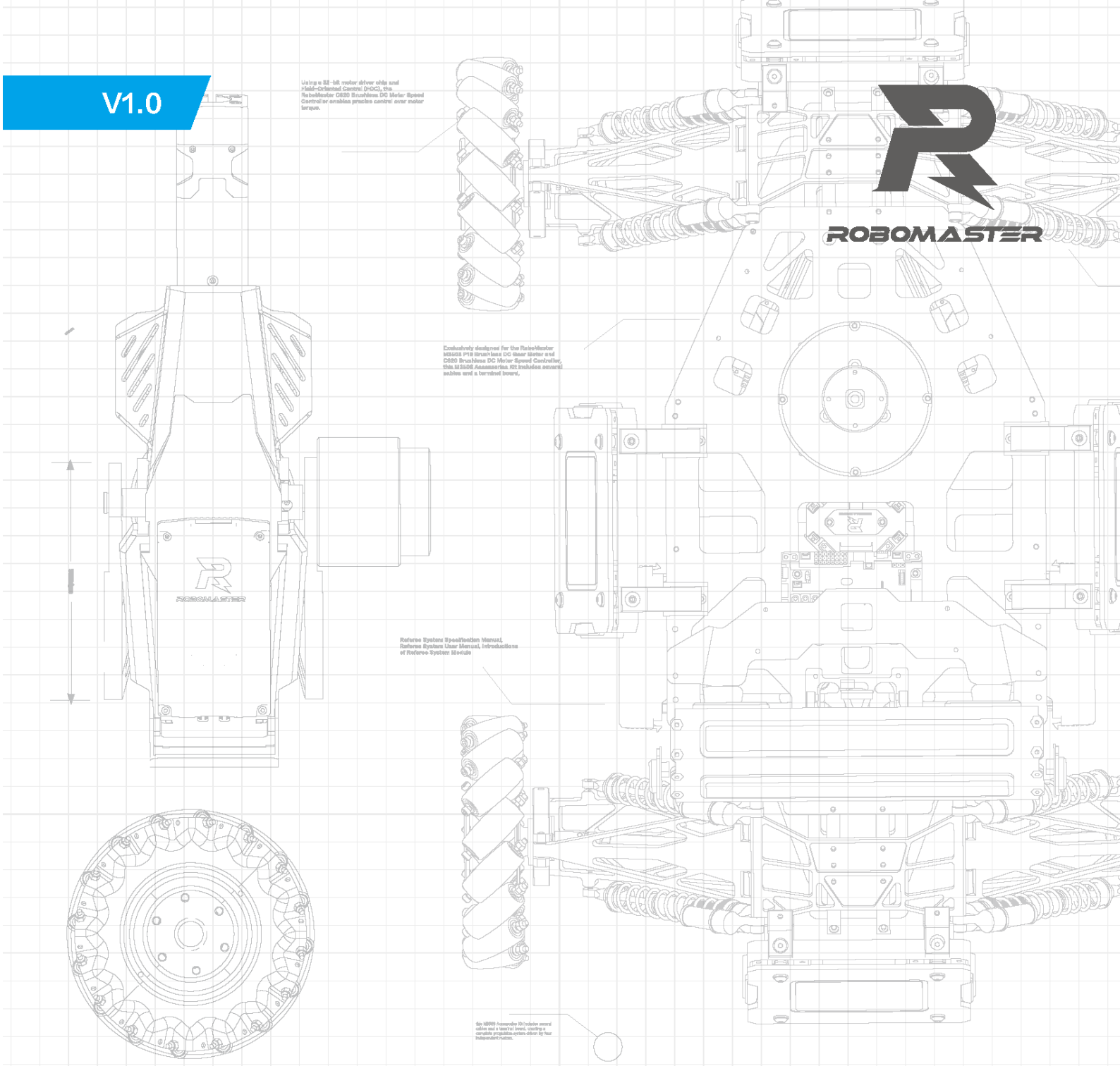
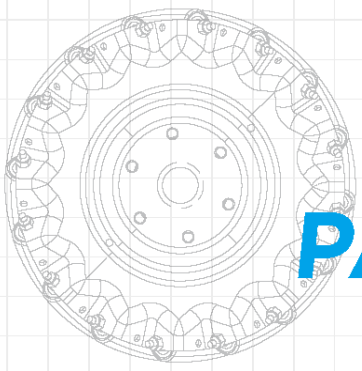
V1.0

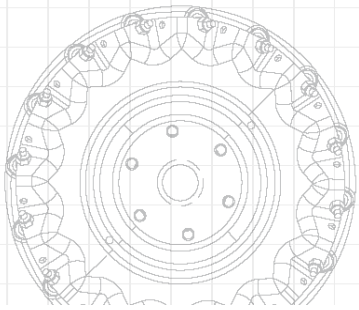


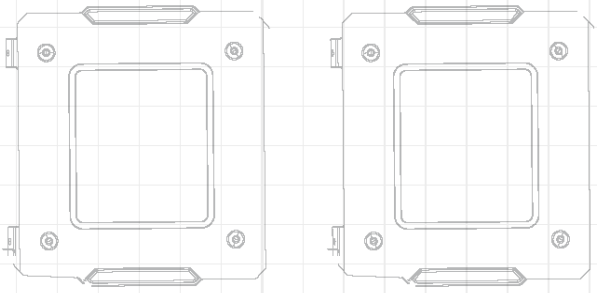
ROBOMASTER 2020
TECHNICAL CHALLENGE

PARTICIPANT MANUAL

Prepared by the *RoboMaster* Organizing Committee
Released on October, 2019







Statement

Participants are forbidden to be engaged or participate in practice suspected of public dispute, sensitive issue, offending the public or certain mass groups or other behaviors that damage the RoboMaster image; otherwise, once confirmed by the RoboMaster Organizing Committee (hereinafter referred to as "the RMOC"), the offending party will be disqualified for the RoboMaster Competitions permanently.

Reading Tips

Symbol Descriptions

Prohibition	Important	Hits and Tips	Reference

Release Notes

Date	Version	Changes
2019.10.31	V1.0	First Release

© 2019 DJI All Rights Reserve

Table of Contents

Statement 2
Reading Tips 2
Symbol Descriptions 2
Release Notes 2
1. Introduction 5
2. Season Schedule 6
3. Participation 8
3.1 Participants 8
3.2 Participating Team 11
3.3 Platform for Communication and Q&A 12
4. Award System 14
4.1 Final Tournament 14
4.2 China Regional Competition 15
4.3 Open Source Award 16
Appendix 1 Technical Assessment 17
Appendix 2 About Award Selection 26

© 2019 DJI All Rights Reserve

Table Directory

Table 2-1 Online Schedule 6
Table 2-2 Offline Schedule 7
Table 3-1 Participants' Roles and Responsibilities 8
Table 3-2 Team Members' Roles and Responsibilities 10
Table 3-3 The Number of Team Members in Each Challenge 11
Table 3-4 Types of Participating Teams 11
Table 3-5 Platform for Communication and Q&A 12
Table 4-1 2V2 Confrontation Awards 14
Table 4-2 Non-2V2 Confrontation Awards 14
Table 4-3 2V2 Confrontation Awards 15
Table 4-4 Non-2V2 Confrontation Awards 15
Table 4-5 Open Source Awards 16
Table 4-6 Rating System 17
Table 4-7 Weight of Each Section of Technical Assessment 17
Table 4-8 Final Robot Assessment Video Requirement 19
Table 4-9 Cost Report Requirement 25

 © 2019 DJI All Rights Reserve

1. Introduction

Founded by SZ DJI Technology Co., Ltd. and designed for young engineers, RoboMaster is a global educational robotics program that includes events, campus clubs, and pop-culture spinoffs.

The RoboMaster Competition is China’s first FPV (First-Person View)-shooter-based robotics competition. It is jointly sponsored by the Central Committee of the Communist Youth League and the Shenzhen Municipal People's Government. It requires participants to go beyond their textbooks to develop a diverse fleet of robots.Through a process of independent research and development, students gain invaluable industrial practice and strategic planning skills. This helps to combine their book knowledge with practice in this field. The most advanced and intelligent robots are built through intense competition and relentless improvement.

The RoboMaster Competition is a global competition that technology enthusiasts from all over the world can enjoy and take part in. With this competition, we hope that robotics and engineering can reach a greater audience and inspire future generations.

RoboMaster attempts to reform the traditional methods of training talent. In the process of developing robotics, participants are provided with a platform where they can interact with like-minded peers, hone and further improve their skills, and advance tirelessly towards their dreams.

© 2019 DJI All Rights Reserve

2. Season Schedule

⚠ The following is the RoboMaster 2020 Season Schedule for reference only. The specific time is subject to the latest announcement by the RMOC.

RoboMaster Technical Challenge is set under RoboMaster Competition. The RoboMaster 2020 Technical Challenge (hereinafter referred to as “RM2020 Technical Challenge”) consists of online match schedule and offline match schedule. It is recommended that each team drafts out a 2020 Season Schedule to evaluate its personnel and funding needs. Teams are also advised to stick to a budget when making their robots at the beginning of the preparation stage.

Teams that complete the registration and pass the Technical Assessment qualify for the Final Tournament. For details about the Technical Assessment, please refer to Appendix 1 Technical Assessment. Teams registering for the Technical Assessment can get a product discount. For details, please refer to RoboMaster 2020 Instructions for Purchasing Materials.

Table 2-1 Online Schedule

Schedule	Item	Property	Rights and Duties
12 p.m., October 15, 2019 - 12 p.m., November 15, 2019	Registration on Official Website	Teams from Mainland China; Teams from Hong Kong, Macao, Taiwan and overseas	Log in the RoboMaster website and complete the registration as required
12 p.m., March 28, 2020 - 12 p.m., March 29, 2020	Technical Assessment– Referee System Exam	Teams from Mainland China; Teams from Hong Kong, Macao, Taiwan and overseas	Qualify for submitting the Final Robot Assessment Video
12 p.m., March 30, 2020 - 12 p.m., April 2, 2020	Technical Assessment– Final Robot Assessment Video	Teams from Mainland China	Qualify for borrowing the participating robot's Referee System and participating in the China Regional Competition
		Teams from Hong Kong, Macao, Taiwan and overseas	Qualify for borrowing the participating robot's Referee System and participating in the Final Tournament

 © 2019 DJI All Rights Reserve

Table 2-2 Offline Schedule

Schedule	Item	Property	Rights and Duties
May 2020 – June 2020	China Regional Competition	Teams from Mainland China	Teams from Mainland China are free to choose the division or accept the arrangements made by the RMOC The priority in choosing the division is based on the score of Technical Assessment
July 2020 – August 2020	Final Tournament	Teams from Mainland China	Teams that rank top in the China Regional Competition qualify for the Final Tournament
		Teams from Hong Kong, Macao, Taiwan and overseas	Directly qualify for the Final Tournament

© 2019 DJI All Rights Reserve

3. Participation

There are three types of team: teams from Mainland China, teams from Hong Kong, Macao, Taiwan and overseas and Chinese and Foreign Joint Teams. The Chinese and Foreign Joint Teams determine their property and entry procedure according to the geographical location of the school.

3.1 Participants

The RoboMaster Competition encourages teamwork and encourages participating members to actively take on important roles within the team. The RMOC will select Outstanding Captains, Outstanding Supervisors and other awards in the Regional Competition and Final Tournament to recognize the players who have made positive contributions to the RoboMaster event. Please refer to the table below for the roles and responsibilities of the participants:

Table 3-1 Participants' Roles and Responsibilities

Roles	Role Instructions	Qty.	Status	Responsibilities
Supervisor	● The main supervisor of the team is responsible for the formation and management of the team ● Responsible for guiding the team in making the robot ● Cannot simultaneously assume the roles of Advisor and Team Member	1-5	Faculties of the team's college or university who are qualified for teaching and scientific research and graduate before August 2020 (if necessary, you need to produce relevant evidence at the competition site)	● Responsible for the safety of the personal property of all team members, and guide and manage the usage of team funds during the competition ● Guide the team in developing project plans, solving research and development problems, etc., help the team successfully conclude the match

© 2019 DJI All Rights Reserve

Roles	Role Instructions	Qty.	Status	Responsibilities
				• During the matches, the Supervisor must actively cooperate with the work of the RMOC, and urge the team Captain and Project Manager to report the progress of the project to the RMOC on a regular basis
Advisor	• Provide guidance and support to the team on strategy, technology, management, etc. • Cannot simultaneously assume the roles of Supervisor and Team Member Advisor cannot serve as Pit Crew.	0-5	Full-time junior college students, undergraduates, postgraduates, and doctoral students in colleges and universities, as well as engineers, researchers and faculties working in enterprises, research institutions, or freelancers	Advisor can undertake tasks of manufacturing robots and other competition affairs
Team Member	• Including Captain, Project Manager and General Member, see the table below for details	Meet the requirements stated in Table 3-3	Full-time junior college students, undergraduates, postgraduates, and doctoral students in colleges and universities learning with proof of school enrollment before August 2020	See the table below for details

© 2019 DJI All Rights Reserve

Roles	Role Instructions	Qty.	Status	Responsibilities
	● Cannot simultaneously assume the roles of Advisor and Supervisor			

Table 3-2 Team Members' Roles and Responsibilities

Roles	Role Instructions	Qty.	Responsibilities
Captain	● Core team member, the team's technical and tactical leader ● The major liaison of the RMOC ● Cannot simultaneously assume the roles of Project Manager	1	● Responsible for division of labor, overall planning and tactics arrangement and adjustment ● Attend Captains Meeting, represent the team to confirm match results and participate in appeal processes and any subsequent hearings ● Responsible for the legacy and development of the team after the competition
Project Manager	Overall manager of the project	0-1	In charge of controlling the overall progress of the project, comprehensively considering the overall management of R&D costs and work safety, and playing a decisive role in the overall project subjects (including progress, results and costs, etc.)
General Member	Assume none of the above roles	Meet the requirements stated in Table 3-3	-

- Pit Crew: Team members who have registered for this Season and have been entered into the registration system, can walk into the Preparation Area and the Competition Area except for Advisors.
- Captain: The participating team member wearing the 'Captain' armband.

© 2019 DJI All Rights Reserve

Table 3-3 The Number of Team Members in Each Challenge

Challenge	Number of Team Member	Number of Pit Crew
Engineer Projectile Obtaining	3-8	3
Standard Racing and Smart Firing	2-5	3
2V2 Confrontation	3-10	6 (including Projectile Supplier)
Dart Targeting	2-5	4

3.2 Participating Team

Below shows the definition, rights and entry procedures for each type of team.

Table 3-4 Types of Participating Teams

Teams from Mainland China	
Definition	Passes the registration review and Technical Assessment within the specified period in order to meet the relevant competition entry requirements and is a team which is geographically located in mainland China.
Entry Rights	Qualified for the competition through official competition qualifications and can qualify for the competition upgrading/promotion. It belongs to the implemented scope of the competition's award regulations.
Entry Procedures	1. The event procedure is carried out in accordance with the standards for teams from Mainland China. The event procedure includes policies on matters such as material gifts, purchases, and participation support. 2. Participate in the China Regional Competitions, those who perform satisfactorily will advance to the Final Tournament.
Teams from Hong Kong, Macao, Taiwan and overseas	
Definition	Through the registration review and Technical Assessment within the specified time, the participating teams from Hong Kong, Macao, Taiwan and overseas regions meet the relevant entry requirements.
Entry Rights	Qualified for the competition through official competition qualifications and can qualify for the competition upgrading/promotion. It belongs to the implemented scope of the competition's award regulations. As regards Hong Kong, Macao and Taiwan and overseas teams, due to their

© 2019 DJI All Rights Reserve

Teams from Mainland China	
	different education systems, team members with high school education are allowed to participate in the competition, but the proportion must not exceed 20% of the total number of team players.
Entry Procedures	1. The event procedure is carried out in accordance with the standards for teams from Hong Kong, Macao, Taiwan and overseas. 2. Directly qualify for the Final Tournament.
Chinese and Foreign Joint Teams	
Definition	Through the registration review and Technical Assessment within the specified period, the participating teams from Mainland China, Hong Kong, Macao, Taiwan and overseas jointly-run universities that meet the relevant entry requirements.
Entry Rights	Qualified for the competition through official competition qualifications and can qualify for the competition upgrading/promotion. It belongs to the implemented scope of the competition's award regulations.
Entry Procedures	1. If the school's geographical location is in Mainland China, its team is subject to the event procedure in accordance with the standards for teams from Mainland China. 2. If the mainland school forms a team with teams whose universities are located in Hong Kong, Macao, Taiwan and overseas, the team is subject to the event procedure in accordance with the standards for teams from Hong Kong, Macao, Taiwan and overseas. As to how the intercollegiate team must meet the competition qualifications, see the RoboMaster 2020 Technical Challenge Rules Manual R1.

3.3 Platform for Communication and Q&A

The RMOC provides many Q&A channels as shown below: For more contact information, please refer to RoboMaster Organizing Committee Official Contact Details and FAQ Rules.

Table 3-5 Platform for Communication and Q&A

Channel	Notes	Office Hours
Official Forum: bbs.robomaster.com	Question with a post title prefix [RM2020 Rule Query] can be posted on the "RoboMaster Technical Challenge" of the "Events" section. The RMOC will check and reply every Thursday and Friday	Office hour: 10:30-12:30, 14:00-19:30 on weekdays

© 2019 DJI All Rights Reserve

Channel	Notes	Office Hours
Email: robomaster@dji.com	Send an email with a subject prefix [RM2020 Rule Query] and the RMOC will check and reply every Thursday and Friday	
Tel：0755-36383255	-	
QQ: 2355418059	When sending a friend request, please write down "Specific competition + college name + role + name".	
WeChat: rmsaiwu		

© 2019 DJI All Rights Reserve

4. Award System

4.1 Final Tournament

- The name of the award will be adjusted later, subject to the actual certificate issued.
- The number of prizes of each challenge is subjected to the actual number of qualified teams. The number of First Prize is no more than 10% of the total participating teams in principle. For the actual number, please pay attention to the latest version of Participant Manual released by the RMOC.

Awards of 2V2 Confrontation of the Final Tournament are as follows:

Table 4-1 2V2 Confrontation Awards

Award	Ranking	Quantity	Reward
National First Prize	Champion: 1st place	1	● Champion Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 750 (pre-tax)
	First Runner-up: 2nd place	1	● First Runner-up Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 750 (pre-tax)
	Second Runner-up: 3rd place	1	● Second Runner-up Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 750 (pre-tax)
	4th place	1	● First Prize Honorary Certificate ● Cash prize of USD $ 750 (pre-tax)
National Second Prize	-	Multiple	Second Prize Honorary Certificate
National Third Prize	-	Multiple	Third Prize Honorary Certificate

The below table of awards is applicable to Engineer Projectile Obtaining, Standard Racing and Smart Firing and Dart Targeting (i.e. non-2V2 Confrontation) of the Final Tournament:

Table 4-2 Non-2V2 Confrontation Awards

Award	Quantity	Reward
National First Prize	Multiple	● First Prize Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 750 (pre-tax)
National Second Prize	Multiple	Second Prize Honorary Certificate

 © 2019 DJI All Rights Reserve

Award	Quantity	Reward
National Third Prize	Multiple	Third Prize Honorary Certificate

4.2 China Regional Competition

The number of prizes of each challenge is subjected to the actual number of qualified teams. The number of First Prize is no more than 10% of the total participating teams in principle. For the actual number, please pay attention to the latest version of Participant Manual released by the RMOC.

Awards of 2V2 Confrontation of the China Regional Competition are as follows:

Table 4-3 2V2 Confrontation Awards

Award	Ranking	Quantity	Reward
Regional Competition First Prize	Champion: 1st place	1	● Champion Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 450 (pre-tax)
	First Runner-up: 2nd place	1	● First Runner-up Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 450 (pre-tax)
	Second Runner-up: 3rd place	1	● Second Runner-up Trophy ● First Prize Honorary Certificate ● Cash prize of USD $ 450 (pre-tax)
	4th place	1	● First Prize Honorary Certificate ● Cash prize of USD $ 450 (pre-tax)
Regional Competition Second Prize	-	Multiple	Second Prize Honorary Certificate
Regional third prize	-	Multiple	Third Prize Honorary Certificate

The below table of awards is applicable to Engineer Projectile Obtaining, Standard Racing and Smart Firing and Dart Targeting (i.e. non-2V2 Confrontation) of the China Regional Competition:

Table 4-4 Non-2V2 Confrontation Awards

Award	Quantity	Reward
Regional Competition First Prize	Multiple	● First Prize Honorary Certificate ● Cash prize of USD $ 450 (pre-tax)
Regional Competition Second Prize	Multiple	Second Prize Honorary Certificate

© 2019 DJI All Rights Reserve

Award	Quantity	Reward
Regional third prize	Multiple	Third Prize Honorary Certificate

4.3 Open Source Award

- There is no fixed number of open source awards, and the RMOC will rank them according to the quality of the submitted projects. For example, if all open source projects are not particularly outstanding, the first prize of the Open Source Award shall have no winners; if there are multiple outstanding players, multiple winners of the first prize of the Open Source Award can be selected.
- The team that won the Champion, First Runner-up and Second Runner-up in the Final Tournament must follow the specification to open source robots that are specified by the RMOC, otherwise it will affect the issuing of the Final Tournament cash prize. The RMOC will disburse Open Source Awards depending on the actual open source situation.

The awards of the Open Source are as follows: For selection, please refer to Appendix 2 About Award Selection.

Table 4-5 Open Source Awards

Award	Quantity	Reward	Notes
Open Source Grand Prize	Multiple	● Honorary Certificate ● USD $ 15,000 (pre-tax)	In the RM2020 season (September 20, 2019 to August 31, 2020), the core technologies operation management approaches were publicly shared in the RoboMaster BBS and on the official website to promote the development of the RoboMaster Competitions and the culture and spirit of engineers
Open Source First Prize	Multiple	● Honorary Certificate ● USD $ 7,500 (pre-tax)	
Open Source Second Prize	Multiple	● Honorary Certificate ● USD $ 4,500 (pre-tax)	
Open Source Third Prize	Multiple	● Honorary Certificate ● USD $ 1,500 (pre-tax)	
Open Source Outstanding Prize	Multiple	● Honorary Certificate ● Class A: USD $ 750 (pre-tax) ● Class B: USD $ 450 (pre-tax) ● Class C: USD $ 300 (pre-tax)	

 © 2019 DJI All Rights Reserve

Appendix 1 Technical Assessment

⚠ Teams that pass the Technical Assessment of the RoboMaster 2020 Robotics Competition are considered to have directly passed the Technical Assessment of the RoboMaster 2020 Technical Challenge and do not need to submit repeatedly.

All teams that compete in the RM2020 must complete a Technical Assessment in accordance with the requirements of the RMOC and within the time specified. For the schedule of the RM2020 season Technical Assessment, please refer to 2 Season Schedule.

The purpose of the Technical Assessment is to demonstrate the technical skills of a team, better prepare the team for the competition, help in the future development, improve the comprehensive competence of demand analysis, cost budgeting, data analysis, report compilation of team members. The score of Technical Assessment will become one of the bases for choosing the division of the China Regional Competition. It is recommended that participating teams take the Technical Assessment seriously, play an active role in the process and fully demonstrate the team's strength.

Technical Assessment will be graded according to certain requirements and the grade will be displayed in the registration system. The following shows the relation between scores and grades:

Table 4-6 Rating System

Score Range	Grade
90 ≤ X ≤ 100	A
75 ≤ X < 90	B
60 ≤ X < 75	C
45 ≤ X < 60	D
30 ≤ X < 45	E
0 ≤ X < 30	F

Technical Assessment Task and Requirement

In RoboMaster 2019 Technical Challenge, there are two Technical Assessment tasks in total: Referee System Examination and Final Robot Assessment Video. Except Referee System Examination, teams can only submit once in other sections.

The total score of the Technical Assessment is the weighted average of scores of each section. Below shows the weight of each section:

Table 4-7 Weight of Each Section of Technical Assessment

Technical Assessment Task	Weight
Referee System Examination	30%

© 2019 DJI All Rights Reserve

Technical Assessment Task	Weight
Final Robot Assessment Video	70%

1. Referee System Examination

- Exam Content: Multiple-choice questions randomly selected from the RoboMaster database. Full mark is 100
- Pass Requirement: 90 or above
- If the pass requirements have not been met within the valid time of the evaluation, repeat the completion of questions. Once several requirements are met, then it will immediately pass the review. The minimum interval between the start of the two questions is 20 minutes.
- The result of the exam is based on the last submission within the effective exam period

2. Final Robot Assessment Video

- Submission Format: Video of each challenge and its Cost Report
- Basic Requirement: Display video of the participating robot of each challenge and its Cost Report
- Submission Method:
  - Upload the video to Youku/YouTube and set an access password
  - Submit the video URL, access password and cost report through the registration system
- Video Requirement:
  - Information boards or captions must be shown at the beginning of the video, to include the following details: college name and date and location of recording
  - Every process must include captions or information boards, which must provide clear and accurate explanations for each process shown in the video
  - Ensure only relevant content is shown and the video is tightly edited lasting no longer than three minutes
  - Videos must have a resolution of 720p or higher
  - Full lineup display
- Video Assessment Requirements: Different challenges have different requirements and scores. The following are the specific requirements for each challenge:

© 2019 DJI All Rights Reserve

Table 4-8 Final Robot Assessment Video Requirement

Item	Display Content	Scoring Criteria		Score
		Criteria for Pass	Criteria for Full Score	
Standard Racing and Smart Firing	Aesthetic Design	● Circuit and electronic components have been protected to a certain extent and there are no bare wires ● Have certain shape ● The number and combinations of coating color meet the requirement	● Circuit and electronic components have been protected properly and there are no bare wires ● The aesthetic design is excellent and the shell is sophisticatedly manufactured ● The number and combinations of coating color meet the requirement and the coating design is aesthetic	10
	Complete movement	Show normal movement	there is no HP deduction caused by power consumption exceeding the limit during the rapid shuttle run and the omnidirectional movement is flexible	5
	Launch 50 rounds of 17mm projectiles successively to the Small Armor Module three meters away and calculate the hit rate	Hit rate is no less than 50%	Hit rate is no less than 90%	20

© 2019 DJI All Rights Reserve

Item	Display Content	Scoring Criteria		Score
		Criteria for Pass	Criteria for Full Score	
	Climb a 15-degree slope and display the power consumption data in real time	When climbing the 15-degree slope, there is no HP deduction caused by power consumption exceeding the limit	Make the most of buffer energy and ensure that the power is stable with no HP deduction caused by power consumption exceeding the limit	10
	Display of the mounting location of the Referee System	● Display the mounting hole of each referee system module separately ● The duration of mounting hole display of each module shall be not less than one second	Display the mounting hole of each referee system module separately and the mounting effect of the full set of the Referee System	20
	Launch the ramp	● Can launch the ramp ● Can move normally after launching the ramp	● When launching the ramp, there is no HP deduction caused by power consumption exceeding the limit ● After launching the ramp, the robot lands smoothly and there is no collision of frames	20
	Activate the Power Rune	Can automatically recognize and hit the Armor Module seven meters away	Can activate the Power Rune successfully	10

© 2019 DJI All Rights Reserve

Item	Display Content		Scoring Criteria		Score
			Criteria for Pass	Criteria for Full Score	
	Other highlights		Except the above display content, there is one extra stable highlight to display	Except the above display content, there is two or more extra stable highlights to display	5
2V2 Confrontation	Standard	Aesthetic Design	● Circuit and electronic components have been protected to a certain extent and there are no bare wires ● Have certain shape ● The number and combinations of coating color meet the requirement	● Circuit and electronic components have been protected properly and there are no bare wires ● The aesthetic design is excellent and the shell is sophisticatedly manufactured ● The number and combinations of coating color meet the requirement and the coating design is aesthetic	5
		Complete movement	Show normal movement	The power consumption should not exceed the limit during the rapid shuttle run and the omnidirectional movement is flexible	2

© 2019 DJI All Rights Reserve

Item	Display Content	Scoring Criteria		Score
		Criteria for Pass	Criteria for Full Score	
	Launch 50 rounds of 17mm projectiles successively to the Small Armor Module three meters away and calculate the hit rate	Hit rate is no less than 50%	Hit rate is no less than 90%	10
	Climb a 15-degree slope and display the power consumption data in real time	When climbing the 15-degree slope, there is no HP deduction caused by power consumption exceeding the limit	Make the most of buffer energy and ensure that the power is stable with no HP deduction caused by power consumption exceeding the limit	5
	Display of the mounting location of the Referee System	● Display the mounting hole of each referee system module separately ● The duration of mounting hole display of each module shall be not less than one second	Display the mounting hole of each referee system module separately and the mounting effect of the full set of the Referee System	10
	Launch the ramp	● Can launch the ramp ● Can move normally after launching the ramp	● When launching the ramp, there is no HP deduction caused by power consumption exceeding the limit	10

© 2019 DJI All Rights Reserve

Item	Display Content		Scoring Criteria		Score
			Criteria for Pass	Criteria for Full Score	
				● After launching the ramp, the robot lands smoothly and there is no collision of frames	
		Other highlights	Except the above display content, there is one extra stable highlight to display	Except the above display content, there is two or more extra stable highlights to display	8
	Sentry	Complete movement on the Sentry Rail	Can move stably on the Sentry Rail	Can move stably and rapidly on the Sentry Rail and there is no HP deduction caused by power consumption exceeding the limit	5
		Launch 50 rounds of 17mm projectiles successively to the Small Armor Module three meters away and calculate the hit rate	Hit rate is no less than 50%	Hit rate is no less than 90%	15
		Display of the mounting location of the Referee System	● Display the mounting hole of each referee system module separately	Display the mounting hole of each referee system module separately and the mounting effect of the full set of the Referee System	10

© 2019 DJI All Rights Reserve

Item	Display Content	Scoring Criteria		Score
		Criteria for Pass	Criteria for Full Score	
		● The duration of mounting hole display of each module shall be not less than one second		
	Visual counterattack	Can recognize armors	● Can rapidly recognize armors of a moving Standard ● The attack hit rate is greater than 50% ● Can defeat a moving Standard within 15 seconds	20
Engineer Projectile Obtaining	Complete movement	Show normal movement	Shuttle run is rapid and the omnidirectional movement is flexible	20
	Climb the slope	Can climb the 15-degree slope	Pass the 15-degree slope rapidly, move stably, evenly and flexibly	20
	Obtain projectiles	Can obtain projectiles inside the Projectile Container on the Resource Island	Can obtain all projectiles inside the three Projectile Containers on the diagonal position of the Resource Island, hand over successfully and display the duration of the whole process	60
Dart Targeting	Update later	Update later	Update later	100

© 2019 DJI All Rights Reserve

- Cost Report Assessment Requirements: All challenges are applicable to the following requirements ans score:

Table 4-9 Cost Report Requirement

Display Content	Scoring Criteria		Score
	Criteria for Pass	Criteria for Pass	
Cost display	Part BOM is complete, including unit price and total price	● BOM of all parts, including screws ● Classification is clear and well-arranged	10

© 2019 DJI All Rights Reserve

Appendix 2 About Award Selection

Individual winners or team winners of Open Source Award are required to submit experience sharing for the award.

Open Source Award

a) Selection Rule

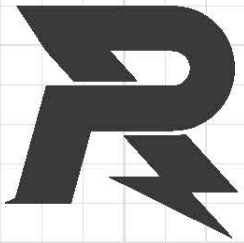
The RMOC will score the open source materials according to the following two criteria: the basic format and content. The specific details and scores of each criterion used will be announced separately.

- (95, 100]: Open Source Grand Prize
- (90, 95]: Open Source First Prize
- (85, 90]: Open Source Second Prize
- (80, 85]: Open Source Third Prize
- (70, 80]: Open Source Outstanding Prize

b) Application Process

To be determined.

© 2019 DJI All Rights Reserve



E-mail: robomaster@dji.com
Forum: bbs.robomaster.com
Website: www.robomaster.com
Tel: +86 (0)755 36383255 (GTC+8, 10:30AM–7:30PM, Monday to Friday)
Address: Room 202, Floor 2, Integrated Circuit Design & Application Industrial Park, No. 1089, Chaguang Road, Xili County, Nanshan District, Shenzhen City, Guangdong Province, China