

V2.0

Using a BL-56 motor driver chip and Hall-effect sensor (HSC), the RoboMaster G300 Brushless DC Motor Speed Controller enables precise control over motor torque.



Exclusively designed for the RoboMaster G300S P18 Brushless DC Motor and G300 Brushless DC Motor Speed Controller, this M3006 Accumulator includes several safety and a terminal cover.

RoboMaster System Specification Manual, RoboMaster System User Manual, Introduction of RoboMaster M3006

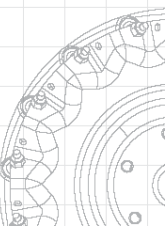
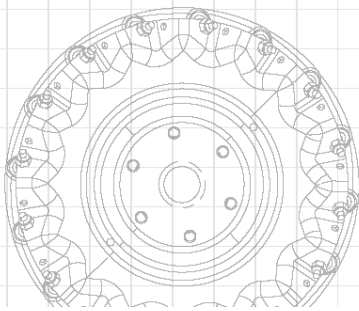
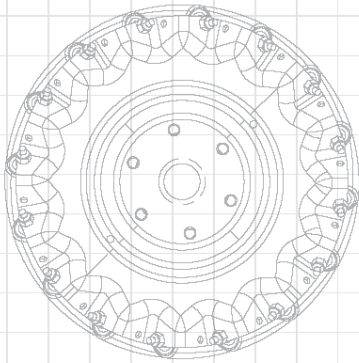
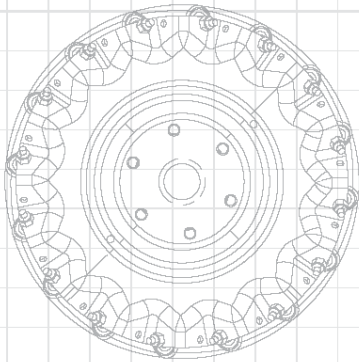
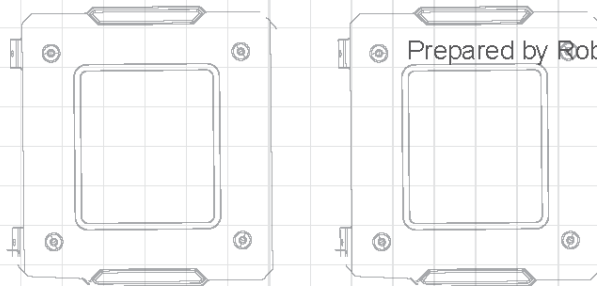
The M3006 Accumulator includes several safety and a terminal cover, and it is completely prohibited to use it for other purposes.

The 23rd China University Robot Competition **ROBOMASTER 2024** University Championship

Participants Manual





Prepared by RoboMaster Organizing Committee

Released in July 2024



Using This Manual

Legend

 Prohibitions	 Important notes	 Hints and tips	 Definitions and references
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Notes

The following sections of the *RoboMaster 2024 University Championship Participant Manual* are not included in this document: Participating Teams, Participants, Rule Inquiries, Season Schedule, Regional Competition Awards, Open Source Awards, Outstanding Contribution Awards, Organization Awards, Robot Combat Awards, Best Design Creativity Awards, Annual Technical Breakthrough Awards, Technical Assessment, RM Awards, and Award Criteria. All details pertaining to these sections are subject to V1.1 of the Manual.

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1. Overview

1.1 Participating Teams

Table 1-1 RMUC Participating Teams from Hong Kong, Macau, Taiwan, and Overseas

No.	Institution Name	Team Name
1	Texas A&M University	Texas Aimbots
2	関東連合大学	OOEDO SAMURAI
3	Great Lakes Alliance	The Great Lakes
4	The University of Hong Kong	HerKules
5	Hong Kong University of Science and Technology	ENTERPRIZE
6	Niigata Union University	Phoenix Robots

*Names are listed in no particular order.

Table 1-2 Participating Teams for RMUC Wild Card

No.	Institution Name	Team Name
1	Chongqing University	千里
2	Dalian University of Technology	凌 BUG
3	Dongguan University of Technology	ACE
4	Guangzhou City University of Technology	野狼
5	National University of Defense Technology of PLA	军临
6	Harbin Engineering University	创梦之翼
7	North China Institute of Science and Technology	风暴
8	Nanjing University of Aeronautics and Astronautics	长空御风
9	Nanhang Jincheng College	Born of Fire
10	Nanjing University of Science and Technology	Alliance
11	Qilu University of Technology	Adam
12	Shanghai University of Engineering Science	木鸢 Birdiebot
13	Shenzhen Polytechnic University	RCIA

No.	Institution Name	Team Name
14	Tianjin University	北洋机甲
15	University of Science and Technology of China	RoboWalker
16	China University of Petroleum (East China)	RPS

*Names are listed in no particular order.

Table 1-3 Participating Teams for RMUC Final Tournament

No.	Institution Name	Team Name
1	Beijing Institute of Technology	追梦
2	Beijing Institute of Technology, Zhuhai	毅恒
3	University of Electronic Science and Technology of China, Zhongshan Institute	RoboBraver
4	Northeastern University	TDT
5	Southeast University	3SE
6	Guangdong University of Technology	DynamicX
7	Guilin University of Electronic Technology	Evolution
8	Guilin Institute of Information Technology	GIRT
9	Harbin Institute of Technology	I Hiter
10	Harbin Institute of Technology (Shenzhen)	南工骁鹰
11	Harbin Institute of Technology (Weihai)	HERO
12	South China University of Technology	华南虎
13	South China Agricultural University	Taurus
14	Huazhong University of Science and Technology	狼牙
15	Jilin University	TARS_Go
16	Nanchang University	Passion
17	Southern University of Science and Technology	ARTINX
18	Shanghai Jiao Tong University	交龙
19	Shenzhen University	RobotPilots

No.	Institution Name	Team Name
20	Capital Normal University	PIE
21	Taiyuan Institute of Technology	火线
22	Taiyuan University of Science and Technology	NewMaker
23	Taiyuan University of Technology	TRoMaC
24	Wuyi University	IMCA
25	Xidian University	IRobot
26	Xi'an Jiaotong University	笃行
27	Zhejiang University	Hello World
28	Central South University	FYT
29	Advancing Team 1 from the Wild Card Competition	
30	Advancing Team 2 from the Wild Card Competition	
31	Advancing Team 3 from the Wild Card Competition	
32	Advancing Team 4 from the Wild Card Competition	

*Names are listed in no particular order.

2. Competition System and Awards

2.1 Competition System

2.1.1 Draw

2.1.1.1 RMUC 2024 Hong Kong, Macau, Taiwan, and Overseas Division

RMUC 2024 welcomes six participating teams from Hong Kong, Macao, Taiwan, and Overseas. During the group stage, these teams are divided into two groups: Group Q and Group W. Based on the advancement results of the RMUC 2023 Wild Card Competition, two seeded teams are designated, as shown in the table below.

- In the drawing box 1, there are drawing balls for the two seeded teams. The chief referee will draw the teams corresponding to Q1 and W1 in order.
- In the drawing box 2, there are drawing balls for the remaining four teams. The chief referee will draw the teams corresponding to Q2, W2, Q3, and W3 in order.

Table 2-1 Seeded Teams

No.	Institution Name	Team Name
1	Niigata Union University	Phoenix Robots
2	Hong Kong University of Science and Technology	ENTERPRIZE

2.1.2 Competition System

In all stages excluding practice matches, each match has several rounds depending on the competition system.

- BO2: 2 rounds per match.
- BO3: 3 rounds per match. The team winning 2 rounds wins the match.
- BO5: 5 rounds per match. The team winning 3 rounds wins the match.

2.1.2.1 RMUC 2024 Hong Kong, Macau, Taiwan, and Overseas Division

The RMUC 2024 Hong Kong, Macau, Taiwan, and Overseas Division includes: Battlefield Component Training, Practice Match, Group Stage, and Knockout Stage.



Two teams from Hong Kong, Macao, Taiwan, and overseas will advance to the second phase of the Wild Card Competition.

- **Battlefield Component Training:** Each team from Hong Kong, Macao, Taiwan, and overseas will receive two training sessions, each lasting 30 minutes. Participating teams can test battlefield components such as the Large Resource Island, Power Rune, Launch Ramp, and Exchange Station in the training field. The first training

session is scheduled by RoboMaster, while the second session must be reserved through Qingflow by the teams themselves. If a team advancing to the second phase of the Wild Card Competition does not utilize its second training session during the Hong Kong, Macau, Taiwan, and Overseas Division, it may retain it for use during the second phase of the Wild Card Competition.

- **Practice Match:** Each team from Hong Kong, Macau, Taiwan, and overseas has one opportunity for Practice Match, which includes a BO2 match in the RMUC Competition Area and free debugging time, totaling 40 minutes including battlefield clearance.
- **Group Stage (BO2):** Participating teams will be divided into two groups for the Group Stage. The top two teams from each group advance to the Knockout Stage according to the Group Stage ranking principle.



For details about the Group Stage Competition System, please refer to "2.1.2.4 Group Stage Rankings and Swiss System Ranking Principles."

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- **Knockout Stage (BO3):** The single elimination competition system is adopted to select two teams that will progress to the second phase of the Wild Card Competition from the four participating teams from Hong Kong, Macao, Taiwan, and overseas.

2.1.2.2 RMUC 2024 Wild Card Competition

The RMUC 2024 Wild Card Competition includes: Battlefield Component Training, Practice Match, First Phase, and Second Phase (including Play-offs).



The top 2 teams from the first phase and the top 2 from the second phase of the RMUC 2024 Wild Card Competition will advance to the Final Tournament.

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- **Battlefield Component Training:** Each participating team of the Wild Card Competition will receive two training sessions, each lasting 30 minutes. Participating teams can test battlefield components such as the Large Resource Island, Power Rune, Launch Ramp, and Exchange Station in the training field. The first training session is scheduled by RoboMaster, while the second session must be reserved through Qingflow by the teams themselves. If a team advancing to the Final Tournament does not utilize its second training session during the Wild Card Competition, it may retain it for use during the Battlefield Component Training of the Final Tournament.
 - **Practice Match:** Each team has one opportunity for Practice Match, which includes a BO2 match in the RMUC Competition Area and free debugging time, totaling 40 minutes including battlefield clearance.
 - **First Phase:** The Swiss System and BO3 format are adopted.

Groups A and B will go through three rounds of matches following the Swiss System.

Within each group, the participating teams will compete according to the results of a draw, and matches will be organized according to the schedule. In the following rounds, every two closest-ranked teams meet. For example, the top-ranked team competes against the second-ranked team, the third-ranked team against the fourth-ranked team, and so on.

Teams with three wins in either group directly advance to the Final Tournament, those with two wins proceed to the Second Phase, and those with two losses are eliminated.

- **Second Phase:** This phase comprises the Swiss System Phase and the Play-offs and adopts the BO3 format for each match.

Swiss System Phase: Six teams from the Chinese mainland and two teams from Hong Kong, Macau, Taiwan, and overseas form Group C for three rounds of Swiss System matches.

The participating teams will compete according to the rankings in the First Phase and the advancement results of the Hong Kong, Macau, Taiwan, and Overseas Division, and matches will be organized according to the schedule. In the following rounds, every two closest-ranked teams meet. For example, the top-ranked team competes against the second-ranked team, the third-ranked team against the fourth-ranked team, and so on.

Teams with three wins in either group advance to the Final Tournament, those with two wins proceed to the Play-offs, and those with two losses are eliminated.



For details about the Swiss System, please refer to "2.1.2.4 Group Stage Rankings and Swiss System Ranking Principles."

Play-offs: The Knockout Stage competition system is adopted. Matches proceed according to the rankings in the Swiss System Phase and the match schedule, with the third-ranked team against the fourth, and the winner challenging the second-ranked team. The ultimate winner secures the final spot in the Final Tournament.

2.1.2.3 RMUC 2024 Final Tournament

The RMUC 2024 Final Tournament consists of Battlefield Component Training, Practice Match, Group Stage (Swiss System), 8/16 Knockout Stage (double elimination), 4/8 Knockout Stage (single elimination), Semifinals, Second Runner-up Contest, and Championship Match.

- **Battlefield Component Training:** Participating teams that advance from the Regional Competition to the Final Tournament have two training sessions, each lasting 30 minutes. They can test battlefield components such as the Large Resource Island, Power Rune, Launch Ramp, and Exchange Station in the training field. The first training session is scheduled by RoboMaster, while the second session must be reserved through Qingflow by the teams themselves.
- **Practice Match:** Participating teams that advance from the Regional Competition to the Final Tournament

have one opportunity for Practice Match, which includes a BO2 match in the RMUC Competition Area and free debugging time, totaling 45 minutes including battlefield clearance.

- **Group Stage:** The Swiss System and BO3 format are adopted. Groups A and B will undergo five rounds of matches following the Swiss System.

Within each group, the participating teams will compete according to the results of a draw, and matches will be organized according to the schedule. In the following rounds, every two closest-ranked teams meet. For example, the top-ranked team competes against the second-ranked team, the third-ranked team against the fourth-ranked team, and so on.

Teams with three wins advance to the 8/16 Knockout Stage, while those with three losses are eliminated.



For details about the Swiss System, please refer to "2.1.2.4 Group Stage Rankings and Swiss System Ranking Principles."

- **8/16 Knockout Stage (BO3):** Eight teams will be selected from the top 16 teams through double elimination to advance to the 4/8 Knockout Stage.
- **4/8 Knockout Stage (BO3):** Four teams will be selected from the top eight teams through double elimination to advance to the Semifinals.
- **Semifinals (BO3):** Teams that are promoted to the Second Runner-up Contest and Championship Match will be selected from the top four participating teams through the single elimination competition system.
- **Second Runner-up Contest and Championship Match (BO5):** The Champion, First Runner-up, Second Runner-up, and Third Runner-up will be selected through single elimination.

2.1.2.4 Group Stage Rankings and Swiss System Ranking Principles

- **Ranking Principles for the Group Stage:**

Table 2-2 Scoring Rules for the Group Stage

Competition System	Competition Result	Points	Remarks
BO2	2:0	3:0	The team winning 2 rounds gains 3 points.
	1:1	1:1	Each team gains 1 point.
	1:0	1:0	(One round draw): The team winning 1 round gains 1 point.

	0:0	0:0	(Two rounds draw): Each team gains 0 points.
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In the Group Stage, the participating teams are ranked based on the following rules:

1. The team with the higher number of total points ranks higher.
2. If two teams have the same total points, the winner of the two in the Group Stage ranks higher.
3. If there are three teams with the same total points or two teams with the same total points are tied, the one with the highest Net Base HP after all matches ranks higher.
4. If multiple teams have the same total Net Base HP, the team with the higher total Net Outpost HP from all rounds ranks higher.
5. If multiple teams have the same total Net Outpost HP, the team with the higher Total Damage HP ranks higher.
6. If two or more teams are still tied for the same place according to these criteria, the RMOC will arrange a playoff match on a round-robin basis.

● **Swiss System Ranking Principles Within Groups**

Table 2-3 Scoring Rules for the Group Stage

Competition System	Competition Result	Points	Remarks
BO3	2:0	1:0	The winning team gains 1 point.
	2:1	1:0	

1. The team with the higher number of total points ranks higher.
2. If two teams have the same total points, the team with the higher rival score ranks higher.
3. If two teams have the same rival score, the team with the higher average round Net Base HP ranks higher.
4. If two teams have the same average round Net Base HP, the team with the higher average round Net Outpost HP ranks higher.
5. If two teams have the same average round Net Outpost HP, the team with the higher average round Damage HP ranks higher.
6. If two or more teams are still tied for the same place according to these criteria, the RMOC will arrange a playoff match on a round-robin basis.

- The “rival score” of a team refers to the total number of wins minus the total number of losses of all the opposing teams that the team has competed against. For example, Team A competed against Team B and Team C at the end of the second round of matches. In the past two rounds, the results of Team B are 2:1 and 2:0, respectively, while those of Team C are 1:2 and 1:2, respectively. The “rival score” of team A is calculated as follows: $(2+2+1+1)-(1+0+2+2)=6-5=1$.



- If Team R, which is the opponent of Team E, quits or is declared lost before the match begins, then the result of Team E in this match is 2:0. The result of Team R in this round will not be included in the calculation of the rival score of Team E. Instead, Team R’s result will be replaced with that of the team with the largest difference between the total number of wins and the total number of losses by the end of this round.

For example, there is a group of eight teams. By the end of the second round, the results of Team T are 2:0 and 2:0, the results of Team W are 2:0 and 2:1, the results of Team E are 0:2 and 2:0, and the results of Team R are 0:2 and 0:2. Team E competes against Team W in the first round and against Team R in the second round. However, Team R is declared lost before the match begins. Then, the rival score of Team E after the second round is calculated as follows: $(2+2+2+2)-(0+1+0+0)=7$. The result of Team T is used to replace that of Team R.



These rankings are solely used to determine matchups for subsequent rounds or the Knockout Stage.

2.2 Awards

- If a participating team qualified for the competition fails to complete the check-in process, they will automatically be disqualified from winning any awards.



- If a participating team qualified for the competition completes the check-in process but fails to participate in the competition, all missed matches will be considered losses. If a team incurs losses in all scheduled matches, they will be disqualified from winning any awards.
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Table 2-4 Awards for the Hong Kong, Macau, Taiwan, and Overseas Division

Prize	Ranking	No. of Persons	Awards
Regional First Prize	Participating teams advancing to the Second Phase of the Wild Card Competition from Hong Kong, Macau, Taiwan, and overseas	2	<ul style="list-style-type: none"> ● Regional first prize certificate ● Cash prize of RMB 15,000 (pre-tax)
Regional Second Prize	Participating teams failing to advance to the Second Phase of the Wild Card Competition from Hong Kong, Macau, Taiwan, and overseas	4	<ul style="list-style-type: none"> ● Regional second prize certificate ● Cash prize of RMB 10,000 (pre-tax)

Table 2-5 Final Tournament Awards

Prize	Ranking	No. of Persons	Awards
National First Prize	Champion: First place	1	<ul style="list-style-type: none"> ● Champion trophy ● Champion medal ● First prize certificate ● Cash prize of RMB 150,000 (pre-tax)
	First Runner-up: Second place	1	<ul style="list-style-type: none"> ● First runner-up trophy ● First runner-up medal ● First prize certificate ● Cash prize of RMB 150,000 (pre-tax)
	Second Runner-up: Third place	1	<ul style="list-style-type: none"> ● Second runner-up trophy ● Second runner-up medal ● First prize certificate ● Cash prize of RMB 150,000 (pre-tax)

Prize	Ranking	No. of Persons	Awards
	Third Runner-up: Fourth place	1	<ul style="list-style-type: none"> ● First prize certificate ● Cash prize of RMB 150,000 (pre-tax)
	5th to 16th place	12	<ul style="list-style-type: none"> ● First prize certificate ● Cash prize of RMB 30,000 (pre-tax)
National Second Prize	17th to 32nd place	16	<ul style="list-style-type: none"> ● Second prize certificate ● Cash prize of RMB 10,000 (pre-tax)
	Teams that have advanced from the Regional Competition to the Wild Card Competition and have not advanced to the Final Tournament	14	<ul style="list-style-type: none"> ● Second prize certificate
National Third Prize	Teams that are from the Chinese mainland and have won the First Prize in the Regional Competition but could not advance to the Final Tournament	4	<ul style="list-style-type: none"> ● Third prize certificate
	Participating teams failing to advance to the Second Phase of the Wild Card Competition from Hong Kong, Macau, Taiwan, and overseas	4	
	17th to 32nd place in each region	48	

3. Competition Process

Qingflow, a platform for process submission and management, facilitates interactions between participating teams and the RoboMaster Organizing Committee (RMOC). For the Hong Kong, Macao, Taiwan, and Overseas Division, Wild Card Competition, and Final Tournament, Qingflow will be used to streamline certain competition processes as outlined in the table below.

Table 3-1 Overview of the Processes Supported by Qingflow

Stage	Process
Before the competition	Reserve for Mock Inspection (excluding participating teams of the Final Tournament)
	Reserve to take the team photo
	Reserve for Battlefield Component Training (second session)
During the competition	Notifications
	Sign a pre-competition statement
	Initiate Pre-Match Inspection for robots
	Borrow the Referee System
	Change the Referee System
After the competition	File an appeal
Others	On-site rules Q&A & technical support

- Participating teams of the Final Tournament do not need to reserve for Mock Inspection via Qingflow. Mock Inspection will be performed based on the check-in order, that is, the first check-in team will be the first to undergo the inspection.
- Due to overlapping schedules between the Wild Card Competition and the Mock Inspection for Final Tournament, two separate Mock Inspection areas will be arranged during the Final Tournament: one on the 2F Preparation Area and the other on the 1F Inspection Area. The inspection items in these two areas are different and independent, and teams must complete inspection on 2F before proceeding to 1F.
- For detailed operations, refer to the [Qingflow User Guide for Participating Teams V2.2](#). Team captains are advised to thoroughly read the guide and bind their WeChat accounts. Qingflow will be used to complete the aforementioned competition processes on-site. The RMOC will distribute system accounts to each captain. Please stay tuned for further notifications.
- Each participating team can submit a request through Qingflow to borrow at most two backup robots' Referee Systems (including those already borrowed during RMUL 2024 and RMUC 2024 Regional

Competitions). In case of system malfunction during the competition, the involved team can apply to replace the Referee System at the designated warehouse, with damages assessed and paid for collectively after the competition. (Time range for Referee System replacement: 8:30 - 20:00 daily).

- During the competition, offline purchasing channels for materials will be temporarily closed (material purchase through Taobao is still allowed), and on-site materials will be available for purchase. For details, refer to the [RoboMaster 2024 Instructions for Purchasing Materials On-site](#).

3.1 Schedule

3.1.1 RMUC 2024 Hong Kong, Macau, Taiwan, and Overseas Division & Wild Card Competition

Table 3-2 Schedule for the RMUC Hong Kong, Macau, Taiwan, and Overseas Division & Wild Card Competition

Pre-competition Schedule	
Team Check-in	July 31, 12:00 - 20:30
	August 1, 8:00 - 18:00
Mock Inspection	July 31, 14:00 - 21:30
	August 1, 9:00 - 16:30
Reservation for Taking the Team Photo	July 31, 15:00 - 20:30
	August 1, 9:00 - 16:30
Battlefield Component Training	August 1, 13:00 - 21:00
	August 2, 9:00 - 22:00
	August 3, 9:00 - 14:00
Captains Meeting and Draw	August 1, 18:00 - 19:30
Sentry Mapping	August 1, 19:12 - 20:24
Practice Match	August 2, 9:00 - 17:20
Match Schedule - Hong Kong, Macau, Taiwan, and Overseas Division	
Group Stage	August 2, 20:50 - 21:50
	August 3, 9:00 - 14:20
Knockout Stage	August 3, 20:00 - 21:10
Match Schedule - Wild Card	

First Phase	August 2, 18:30 - 20:50 August 3, 10:00 - 20:00 August 4, 9:00 - 12:30
Second Phase	August 4, 14:15 - 16:35 August 5, 9:00 - 15:40
Play-offs	August 5, 19:00 - 19:35 August 6, 9:00 - 9:35
Activities	
RoboMaster Young Engineers Summit	August 12, 9:00 - 21:00
SkyPixel Open Day	August 13, 8:30 - 10:30



The time schedule for check-in, Practice Match, and the official competition is subject to the standard time of the venue. All times mentioned above are in Beijing Time (UTC+8).

*The actual time may differ.

3.1.2 RMUC 2024 Final Tournament


Table 3-3 Schedule for the RMUC Final Tournament

Pre-competition Schedule	
Team Check-in	August 2, 8:00 - 20:30 August 3, 8:00 - 20:30
Mock Inspection	August 2, 10:30 - 21:10 August 3, 9:00 - 20:40 August 4, 13:00 - 20:50
Reservation for Taking the Team Photo	August 2, 14:00 - 17:30 August 3, 10:00 - 16:00 August 4, 9:00 - 15:30
Battlefield Component Training	August 3, 14:00 - 22:00 August 4, 9:00 - 22:00 August 5, 9:00 - 22:00 August 6, 9:00 - 13:00

Captains Meeting and Draw	August 3, 20:30 - 22:00 August 5, 18:00 - 18:30
Sentry Mapping	August 4, 12:50 - 13:50 August 5, 11:40 - 12:04
Practice Match	August 4, 16:35 - 22:00 August 5, 12:20 - 21:50
Match Schedule	
Group Stage	August 6, 9:35 - 22:10 August 7, 9:00 - 22:10 August 8, 9:00 - 22:10 August 9, 9:00 - 15:50
8/16 Knockout Stage	August 9, 17:50 - 22:30 August 10, 9:00 - 17:45
4/8 Knockout Stage	August 10, 18:50 - 21:10 August 11, 9:00 - 10:10
Semifinals	August 11, 12:00 - 13:10
Second Runner-up Contest	August 11, 15:10 - 16:10
Championship Match	August 11, 16:10 - 17:10
Activities	
Award Ceremony	August 11, 17:40 - 18:10
RoboMaster Young Engineers Summit	August 12, 9:00 - 21:00
SkyPixel Open Day	August 13, 8:30 - 10:30

***The actual time may differ.**

3.2 Check-in Day Procedures

- The RMOC will take photos for all RMUC participants on the check-in day. Participating teams must log in to Qingflow to reserve for the specific shooting time.
-  Upon check-in, each team needs to obtain vehicle passes and positioning system modules at the check-in area of the preparation area. Teams are required to return the positioning system modules as soon as they complete all their scheduled matches at the check-in area.

3.3 Practice Match Order



The actual time for each match may differ.

3.3.1 Practice Match Order for the Hong Kong, Macau, Taiwan, and Overseas Division and Wild Card Competition

Table 3-4 Practice Match Schedule for the RMUC Hong Kong, Macau, Taiwan, and Overseas Division and Wild Card Competition

Match No.	Red Team	Blue Team	Time
August 2			
Pre-Match Inspection in the morning			Begins at 7:30
1	Team 1 check-in	Team 2 check-in	9:00 - 9:40
2	Team 3 check-in	Team 4 check-in	9:40 - 10:20
3	Team 5 check-in	Team 6 check-in	10:20 - 11:00
4	Team 7 check-in	Team 8 check-in	11:00 - 11:40
5	Team 9 check-in	Team 10 check-in	11:40 - 12:20
Break			12:20 - 13:20
Pre-Match Inspection in the afternoon			Begins at 11:50
6	Team 11 check-in	Team 12 check-in	13:20 - 14:00
7	Team 13 check-in	Team 14 check-in	14:00 - 14:40
8	Team 15 check-in	Team 16 check-in	14:40 - 15:20
9	Team 17 check-in	Team 18 check-in	15:20 - 16:00
10	Team 19 check-in	Team 20 check-in	16:00 - 16:40
11	Team 21 check-in	Team 22 check-in	16:40 - 17:20

*The matchups and each team's order for the Practice Match may be adjusted based on the draw results.

3.4 Match Order



- I-A/BX represents the team with the draw number X in the first round.
- II-A/BX represents the team ranked X in the second round, and so on for subsequent rounds.
- The actual time may differ.

3.4.1 Match Order for the Group Stage of the Hong Kong, Macau, Taiwan, and Overseas Division

Table 3-5 Match Order for the Group Stage of the Hong Kong, Macau, Taiwan, and Overseas Division

Match No.	Red Team	Blue Team	Time
August 2			
Pre-Match Inspection in the late afternoon			Begins at 19:20
1	Q1	Q2	20:50 - 21:20
2	W1	W2	21:20 - 21:50
August 3			
Pre-Match Inspection in the morning			Begins at 7:30
3	Q3	Q1	9:00 - 9:30
4	W3	W1	9:30 - 10:00
Break			10:00 - 13:20
Pre-Match Inspection in the afternoon			Begins at 11:50
5	Q2	Q3	13:20 - 13:50
6	W2	W3	13:50 - 14:20

3.4.2 Match Order for the Knockout Stage of the Hong Kong, Macau, Taiwan, and Overseas Division

Table 3-6 Match Order for the Knockout Stage of the Hong Kong, Macau, Taiwan, and Overseas Division

Match No.	Red Team	Blue Team	Winner	Loser	Time
August 3					
Pre-Match Inspection in the late afternoon					Begins at 18:30
7	Q-1	W-2	C-r1	Eliminated	20:00 - 20:35
8	W-1	Q-2	C-r2	Eliminated	20:35 - 21:10

3.4.3 Match Order for the Second Phase of the Wild Card Competition

Table 3-7 Match Order for the Second Phase of the Wild Card Competition

Match No.	Red Team	Blue Team	Time
August 4			
Round 1 in the Second Phase of the Wild Card Competition			
Pre-Match Inspection in the afternoon			Begins at 12:45
23	I-C-a2	I-C-b3	14:15 - 14:50
24	I-C-b2	I-C-a3	14:50 - 15:25
25	I-C-b4	I-C-r1	15:25 - 16:00
26	I-C-r2	I-C-a4	16:00 - 16:35
August 5			
Round 2 in the Second Phase of the Wild Card Competition			
Pre-Match Inspection in the morning			Begins at 7:30
27	II-C1	II-C2	9:00 - 9:35
28	II-C3	II-C4	9:35 - 10:10
29	II-C6	II-C5	10:10 - 10:45
30	II-C8	II-C7	10:45 - 11:20
Break			11:20 - 12:20
Round 3 in the Second Phase of the Wild Card Competition			
Pre-Match Inspection in the afternoon			Begins at 12:25
31	III-C2	III-C1	13:55 - 14:30
32	III-C4	III-C3	14:30 - 15:05
33	III-C5	III-C6	15:05 - 15:40

*I-C-a/bX represents the team ranked X after the third round of the First Phase of the Wild Card Competition; I-C-rX represents the team advancing to the Second Phase from the Knockout Stage of the Hong Kong, Macao, Taiwan, and Overseas Division.

3.4.4 Play-offs in the Wild Card Competition

Table 3-8 Match Order for Play-offs

Match No.	Red Team	Blue Team	Winner	Loser	Time
August 5					
Pre-Match Inspection in the afternoon					Begins at 17:30
34	IV-C3	IV-C4	Winner D	Eliminated	19:00 - 19:35
August 6					

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Match No.	Red Team	Blue Team	Winner	Loser	Time
Pre-Match Inspection in the morning					Begins at 7:30
35	IV-C2	Winner D	Final Tournament	Eliminated	9:00 - 9:35

4. Match Location

4.1 Location

Location	Address
Preparation Area	Badminton Hall No.2, 2F, Shenzhen Bay Sports Center (Spring Cocoon) Stadium
Competition Area	Shenzhen Bay Sports Center (Spring Cocoon) Stadium
RoboMaster Young Engineers Summit	To be determined
SkyPixel Open Day	SkyPixel

4.2 Site Maps



- Except Elevators No. 9, 13, and 17, all other elevators and escalators within the stadium (including outdoor areas such as the parking lot and plaza) are designated solely for passenger use and are strictly prohibited from transporting goods, including robots, flight cases, and trolleys. Violation of this rule will result in a fine of RMB 3,000 per occurrence imposed by the stadium.
- Lalamove's vehicles with a valid pass are permitted to access the designated unloading area on the second floor via the West Gate or North Gate. It is strictly forbidden for any external vehicles, including Lalamove, to enter the plaza area. Violation of this rule will result in a fine ranging from RMB 1,000 to RMB 3,000 per occurrence, imposed by the stadium.
- If unloading needs to take place on the first floor, follow the Entry Route Diagram (1F Route) to Elevator No. 9 for access to the preparation area on the second floor. This route traverses through public areas such as shopping malls, where teams are responsible for safeguarding their belongings and adhering to safety precautions to prevent property damage or personal injury.

4.2.1 Entry Route Diagram

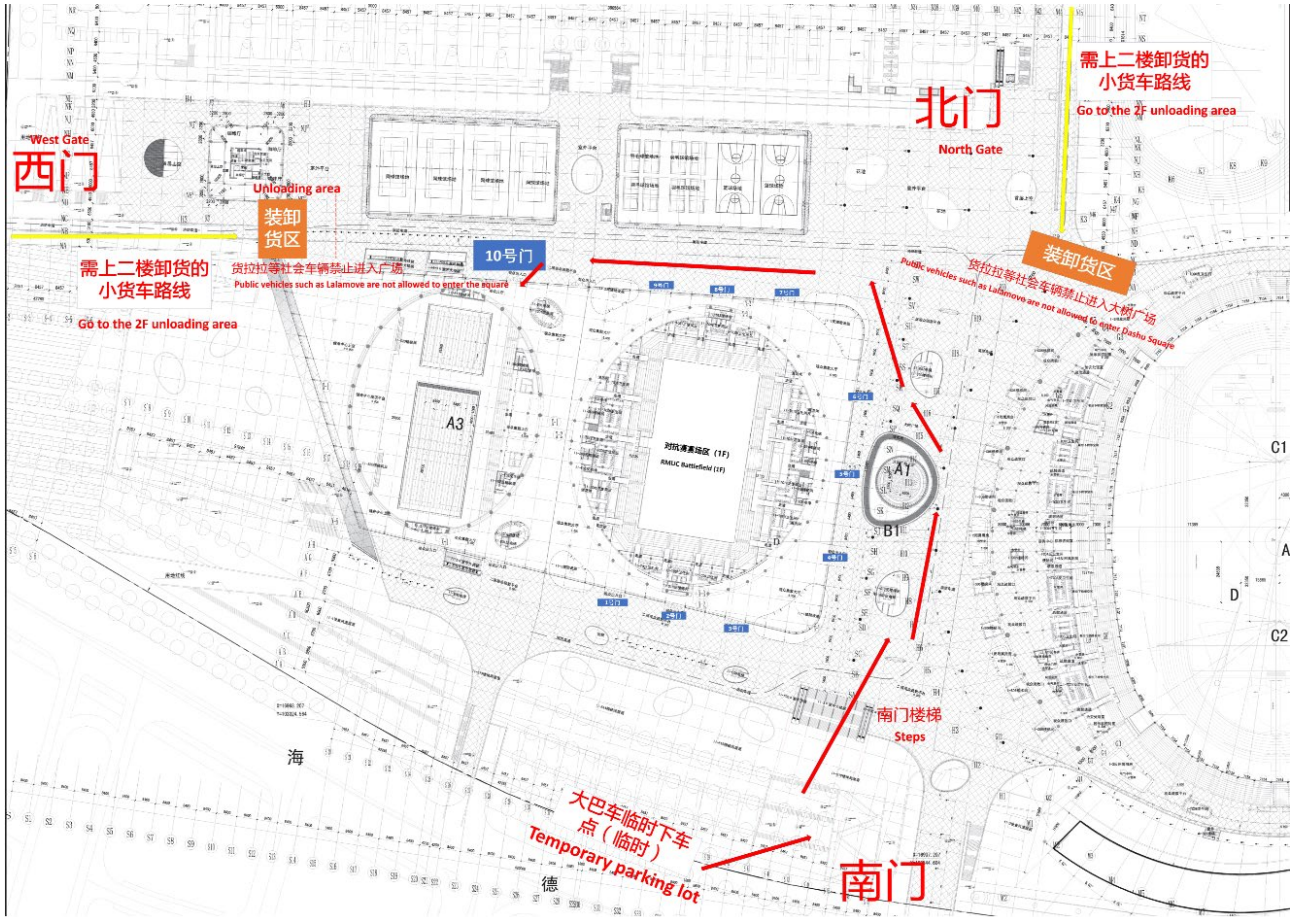


Figure 4-1 Entry Route Diagram (2F Route)

4.2.2 Competition Area Layout Diagram



Figure 4-2 Layout Diagram of the 1F Competition Area

4.2.3 Preparation Area and Pit Area Layout

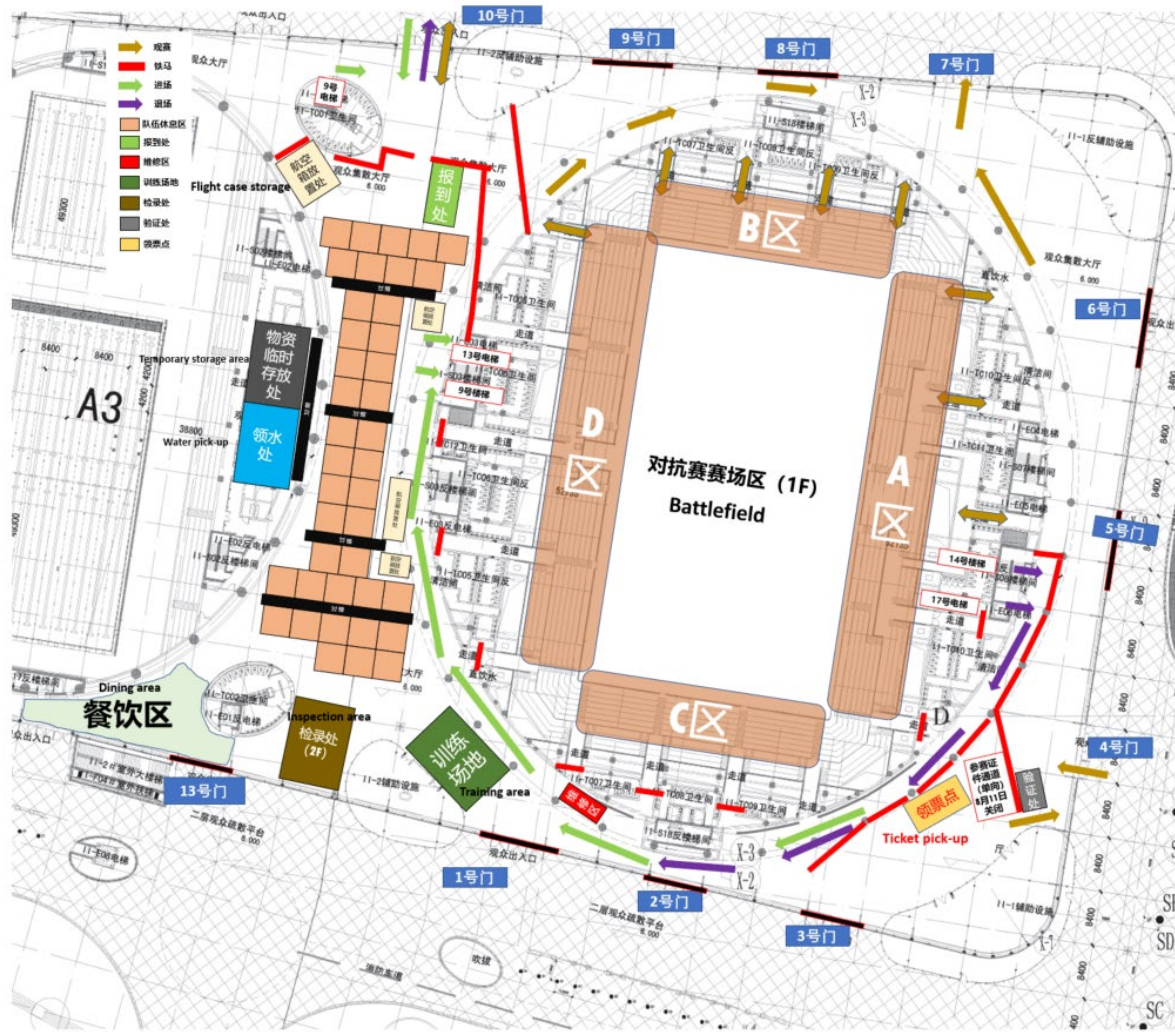


Figure 4-3 Layout Diagram of the Preparation Area and Pit Area

4.3 Safety Instructions

Every participant must fully understand and accept that safety is the prerequisite for the sustainable development of the RoboMaster Competition. In order to protect the rights and interests of all team members and the event organizers, and according to relevant laws and regulations, all team members who have registered for the RoboMaster Competitions will be deemed to have acknowledged and agreed to abide by the following safety terms:

1. All team members who have registered to participate in the RoboMaster competition must confirm that they have full capacity for civil conduct and they are able to build and operate robots independently. They must also make sure that they have read in detail the Registration Guide and Competition Regulations among other important documents stating the rules and regulations of the competition, before starting to use any products by SZ DJI Technology Co., Ltd. to build robots.
2. During the competition, all team members should make sure that their actions, including the creation, testing, and use of robots, will not cause any injury or damage to his or her teammates, members of the opposing teams, referees, competition staff, audience, equipment, or the Competition Area.
3. All teams must ensure that the structural design of their robots will not hinder safety inspection during the Pre-match Inspection and agree to fully cooperate with the Pre-match Inspection carried out by RoboMaster's organizers.
4. The team must guarantee that no fuel-driven engines, explosives, high-pressure gases, or energetic chemicals are used.
5. Throughout the R&D, preparation and competition stages, all team members must pay full attention to potential safety issues, and the team's Supervisors must be responsible for instructing and supervising the team on safety issues.
6. The team must guarantee the safety of all the robots. This includes ensuring the "projectile" launchers installed on the robots are safe and that they will not cause any harm (either directly or indirectly) to any operators, referees, staff, or audience.
7. The team should take sufficient and necessary safety measures during the R&D, training, and competition stages regarding potential accidents. The measures may include keeping the control systems under control, urging the team members to envision the steps before the operation to avoid mistakes or collisions between team members and between team members and robots, forbidding isolated training to ensure there will always be team members to respond to emergencies, wearing goggles and helmets, conducting appropriate locking and adding an emergency stop switch in the robot system during commissioning.
8. Teams will be held responsible for all accidents and losses resulting from the technical faults of robots, loss of control of UAVs or any other unexpected circumstances.

9. The aerial robots of participating teams are allowed to fly only above certain restricted areas in competition venues. Therefore, no flight permit is required. To ensure the flight safety of an aerial robot, use an aerial safety rope to connect the aerial robot to a fixing pile on the ground. If an accident occurs, for example, if the aerial robot breaks away from the safety rope, the pilot must stop the motors and land the aerial robot as soon as possible. It is strictly prohibited to continue to fly in case of an accident. Participating teams are strictly prohibited from flying aerial robots outdoors. Any violation will immediately result in the disqualification of the offending team from the competition.
10. The materials bought from or provided by the organizer SZ DJI Technology Co., Ltd., such as batteries and the Referee System, must be used in accordance with their instructions. SZ DJI Technology Co., Ltd. will not be held responsible for any injuries that arise from improper use of these materials. Teams will be held responsible for any injuries caused to their own members or any third party and for any property loss arising from creating and operating any robots.
11. All team members must remain in strict compliance with the laws and regulations of the country or region. All team members must also pledge that their robots will only be used for the RoboMaster competitions and that their robots will not be illegally modified or used for any illicit purpose(s).

4.4 Pre-competition Statement

To maintain the order in the preparation area during the RoboMaster 2024 competition, all competing team members must comply with the following regulations during the competition:

1. The preparation area will include an exclusive break area for each team. All teams are required to conduct activities in the designated areas. Teams are not allowed to occupy public passages, to practice in the unofficially designated areas without permission, or to interfere with the preparation of other teams.
2. Each team can have a maximum of 35 participants in the preparation area, and will be issued the corresponding number of entry badges for access to the preparation area or spectating in the Audience Area.
 - a) Any individuals found to be without entry badges will be asked to leave the preparation area.
 - b) If any individuals are found not wearing their entry badges in the preparation area, a record will be kept for their team. If a team accumulates two or more such records and continues to have individuals who do not wear entry badges, the offending individual's entry badge will be confiscated for 30 minutes, during which they must leave the preparation area. Subsequent violations will result in increased confiscation periods and exclusion from the Preparation Area, culminating in the revocation of the individual's access privileges.

3. Participating teams must bring sufficient goggles, as entry to the preparation area is not allowed without them. No RoboMaster goggles will be available for borrowing or gifting on-site. The RMOC has no specific requirements regarding the brand or specifications of goggles used during the competition.
4. Gas cylinders and batteries that do not conform to the regulations are not allowed to be used in the preparation area, and dangerous actions such as launching projectiles are not allowed.
5. The preparation area has a large electricity consumption. In order to regulate the power consumption behavior, each team must go to the designated maintenance area for operation when using high-power appliances and risky tools to prevent accidents.
6. It is strictly forbidden to set up Wi-Fi or use any equipment such as walkie-talkies for communication between team members in the preparation area.
7. There are many function-specific areas and a lot of people in the venue, so each participating team members must wear their entry badges and bracelets when entering and leaving the venue. It is strictly forbidden for members of participating teams to enter the activity area of non-participating team members through the entrance for non-participating team members.
8. When heading for the inspection area, preparation area, or competition area or returning to the preparation area, each team member must strictly follow the route plan from the RMOC to avoid delaying the competition or causing confusion.
9. Teams are not allowed to damage the public facilities at the venues. In case of any damage, all losses will be borne by the teams themselves.
10. After the preparation area is closed, each team can leave their belongings in the break area, but the RMOC will not be responsible for the safety of their belongings.
11. Each team must be responsible for the personal safety of the team and the security of its property during the competition. The RMOC will not be responsible for any bodily harm or property loss caused by the teams themselves.
12. Before arriving at the staging area, each team should confirm that the team has brought all necessary items (such as data cables, etc.) and robots for the competition, that the ID numbers of the robots are correct, and that all robots in the staging area have undergone the Pre-match Inspection and have Pass Cards placed on them. The team that disrupts the normal commencement of the competition will bear full responsibility.
13. In RMUC, each team can have a maximum of 20 pit crews, including up to 19 regular members (captain, operators) and 1 supervisor. An additional publicist is permitted if present (see [Publicist Entry Qualifications and Procedures](#)). Any impersonation discovered will be handled according to the relevant rules outlined in the manual.

14. All participating teams must abide by the rules and safety regulations of the Staging Area and cooperate with the RMOC staff. Teams are not allowed to power up the robots at the Staging Area.
15. If robots require maintenance after entering the Staging Area, the team must first inform the staff in the Staging Area. A robot of the applicant can return to the Repair Area only after a staff member in the Staging Area removes the Pass Card on the robot. When repair is finished, the robot must be brought back to the Inspection Area for another Pre-Match Inspection before re-entering the Staging Area.
16. Participating teams must arrive at the Staging Area 15 minutes before the match. Captains must confirm all materials and robots for competition are ready 10 minutes prior to the start. Otherwise, disciplinary actions may be performed according to the Rules Manual. The staff within the Staging Area and the Chief Referee have the final say.
17. Participating teams using DT7 Remote Controllers must bring their own MicroUSB cables to the Operator Room, as cables will not be provided.
18. Apart from the pre-installed 17 mm fluorescent projectiles within robots, no additional projectiles are allowed in the Competition Area. Once found, all additional projectiles will be confiscated at the Projectile Unloading Area. Note: Participating teams should bring more than the required number of 42 mm standard projectiles to clear the 42 mm luminous projectiles at the Projectile Unloading Area.
19. During the competition, each team should comply with the safety guidelines of the Exchange Station. Violations during the Practice Match or Battlefield Component Training will result in expulsion from the respective areas. During official matches (including the Three-Minute Setup Period and post-match clearance), offenders will be disqualified from entering subsequent rounds of the Regional Competition or may face an outright ban from the competition. For the *Notice on the RoboMaster 2024 University Championship Exchange Station Safety Regulations*, visit <https://www.robomaster.com/en-US/resource/pages/announcement/1715>.
20. In case of violations of the above regulations, the RMOC has the right to disqualify the team.

4.5 Intellectual Property Statement

The RMOC encourages and advocates for technological innovation and open source technology while respecting and protecting the intellectual property rights of participating teams.

4.5.1 Intellectual Property Respect and Protection

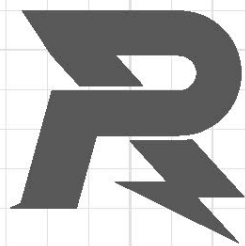
1. Participating teams should respect others' intellectual property rights, including but not limited to patents, trademarks, and copyrights (including IP images). Unauthorized use of others' intellectual property rights

during the competition is prohibited.

2. IP images & trademarks: Participating teams that need to use others' trademarks or IP images must obtain prior written authorization from the respective rights holders and notify the RMOC via email (robomaster@dji.com).
3. RMOC's intellectual property rights: While using the robots, referee system, and other competition materials provided by the RMOC, all participating teams shall respect the intellectual property of the original products and refrain from reverse engineering or any other actions that infringe upon the rights of the original products.
4. Participating teams are solely responsible for any legal consequences arising from infringement upon intellectual property rights. The RMOC assumes no responsibility and will not intervene in intellectual property disputes.

4.5.2 Ownership of Intellectual Property

All intellectual property developed by a participating team during the competition belongs to the team. However, if the development involves the use of others' technologies or IP images, the corresponding authorization agreements must be followed.



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