

# ENJOY AI 2026: Drone Cup Competition Rules

## 1. Competition Theme

Welcome to the world of ENJOY AI! You — a young and brave pilot — land on the moon and join a drone soccer battle. Drone Cup uses drone robotics, information processing, communication, and smart decision-making. In this game, you must control multiple drones in a fast and challenging environment. Work as a team to share information and score goals.

## 2. Competition Field and Environment

### 2.1 Competition field

The competition field, sized 440×200×170 cm (see Fig. 1), is surrounded by a safety net. Each goal ring is 60 ±2 cm above the ground, and has a circular opening about 36 cm wide.

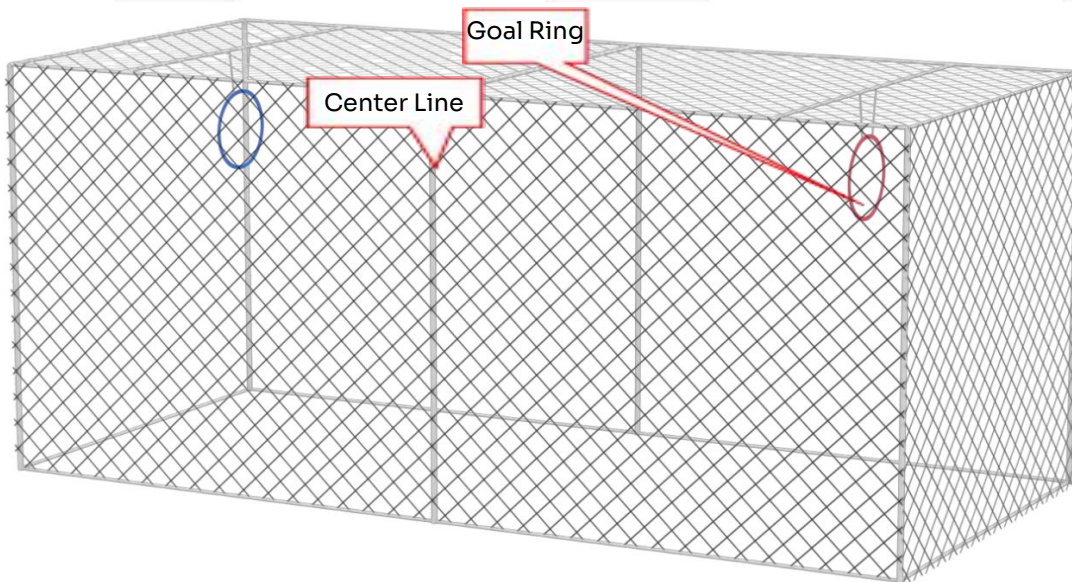


Fig.1 Competition Field

### 2.2 Competition environment

The field should have cool, soft lighting and no magnetic interference. The field conditions may change, like different surfaces, small bumps, or lighting. Please keep these in mind when flying your robots.

### **3. Robot**

3.1 Drone Type: Quadrotor drone

3.2 Drone Size:  $(125 \pm 1) \times (125 \pm 1) \times (105 \pm 1)$  mm (L  $\times$  W  $\times$  H)

3.3 Motor and Wheelbase: Coreless motors; wheelbase  $71.5 \pm 1$  mm

3.4 Propeller: 42 mm diameter propellers

3.5 Weight:  $\leq 42$  g (including battery)

3.6 RGB Lights: 5 RGB lights with  $\geq 5$  color variations per light

3.7 Sensors: No restriction on sensor types or quantity

3.8 Power Supply:  $\leq 5V$  battery voltage;  $\leq 600$  mAh battery capacity

3.9 Each team can use only four drones in total and two drones for competition. You cannot share your drones with other teams.

3.10 Unless otherwise specified, participants can prepare all drones, remote controller, spare parts, repair tools, and safety goggles. There is no restriction on the number of spare parts.

### **4. Competition**

#### **4.1 Participating team**

4.1.1 Each team must have two students and one coach. The students must still be enrolled in school as of June, 2026.

4.1.2 Students should proactively deal with problems they may meet during the competition. They must respect and politely communicate with their teammates, opponents, volunteers, referees, and all those who contribute to the competition.

#### **4.2 Competition format**

4.2.1 The competition will be divided into four groups including kindergarten, lower primary (grades 1-3), upper primary (grades 4-6), and middle school.

4.2.2 The competition consists of a preliminary round and an intermediate round. The preliminary round adopts a group round-robin or similar format, while the intermediate round follows a knockout format.

##### **4.2.3 Preliminary competition**

4.2.3.1 In the preliminary round, groups are determined by a random draw. For example, 31 participating teams may be divided into 8 groups (see Fig.2).

A1	A2	B1	B2	C1	C2	D1	D2
A3	A4	B3	B4	C3	C4	D3	D4
E1	E2	F1	F2	G1	G2	H1	H2
E3	E4	F3	F4	G3	G4	H3	

**Fig.2 Group Allocation Table**

4.2.3.2 Each group will play a simple round-robin match. A win gets 3 points, a draw gets 1 point, and a loss gets 0 points. Teams will be ranked by total points. The best teams from each group will go to the next round.

4.2.3.3 The team that scores more goals in a match will win. If both teams score the same number of goals or no goals, the match will be a draw.

4.2.3.4 If two or more teams in the same group have the same number of points, the rankings will be decided like this:

- (1) The team with more goals will be ranked higher;
- (2) If still the same, the team that won the match between them will be ranked higher;
- (3) If still the same, one more match will be played.

#### 4.2.4 Intermediate competition

4.2.4.1 The intermediate round will use a knockout format. The bracket is shown below (see Fig.3).



**Fig.3 Knockout Stage Bracket**

4.2.4.2 In the knockout stage, the team with more goals will go to the next round. If both teams score no goals or the same number of goals, the match will go to a penalty shootout (see 4.3.4 for details).

4.2.4.3 The organizing committee may change the match format depending on how many teams join and the real situation.

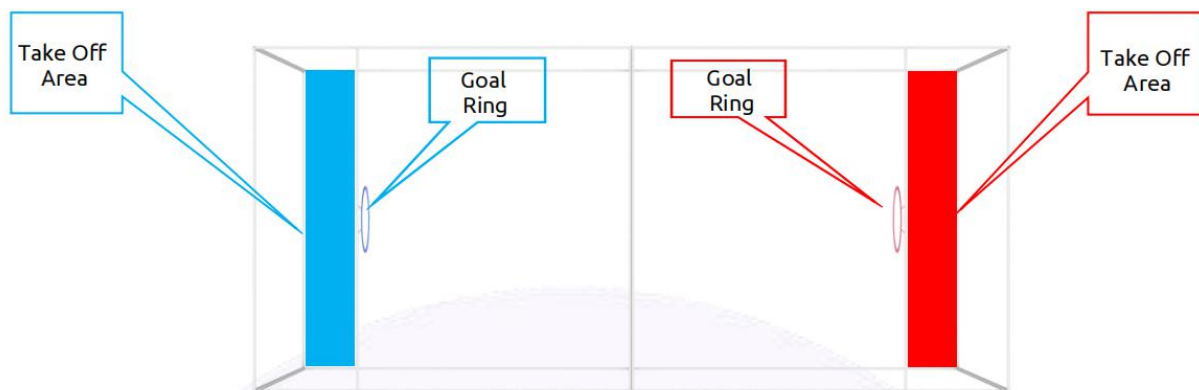
## 4.3 Procedure

### 4.3.1 Pre-match preparation

4.3.1.1 There is no time for testing before the match. Take your drone and follow the guide into the match area. If you and your teammate are late, your team will lose the match.

4.3.1.2 Each team must have two student players near the field during the match. They must stay near the field.

4.3.1.3 Players must place their drones at the correct starting spot, with the whole drone behind the goal rings (see Figure 4).



**Fig.4 Diagram**

4.3.1.4 All team members must finish their setup within one minute. During this time, drones must stay turned off, and no hardware changes are allowed. When ready, show a signal to the referee.

4.3.1.5 Drones must show team colors using their lights (blue for the blue team, red for the red team). Indicator lights can be customized, but they cannot be red or blue.

### 4.3.2 Start of a match

4.3.2.1 When referees see that both teams are ready, they will say “unlock.” Then, players can unlock their drones. After that, the referee will count: “3, 2, 1, start”. Players can fly their drones only after hearing “start”.

4.3.2.2 If a drone flies before “start” is said, it is a false start. The team will get a warning or a penalty.

### 4.3.3 Competition format

4.3.3.1 Each match is 4 minutes long, with two halves and a 1-minute break. Drones must be controlled using real remote controllers. Phones and tablets are not allowed.

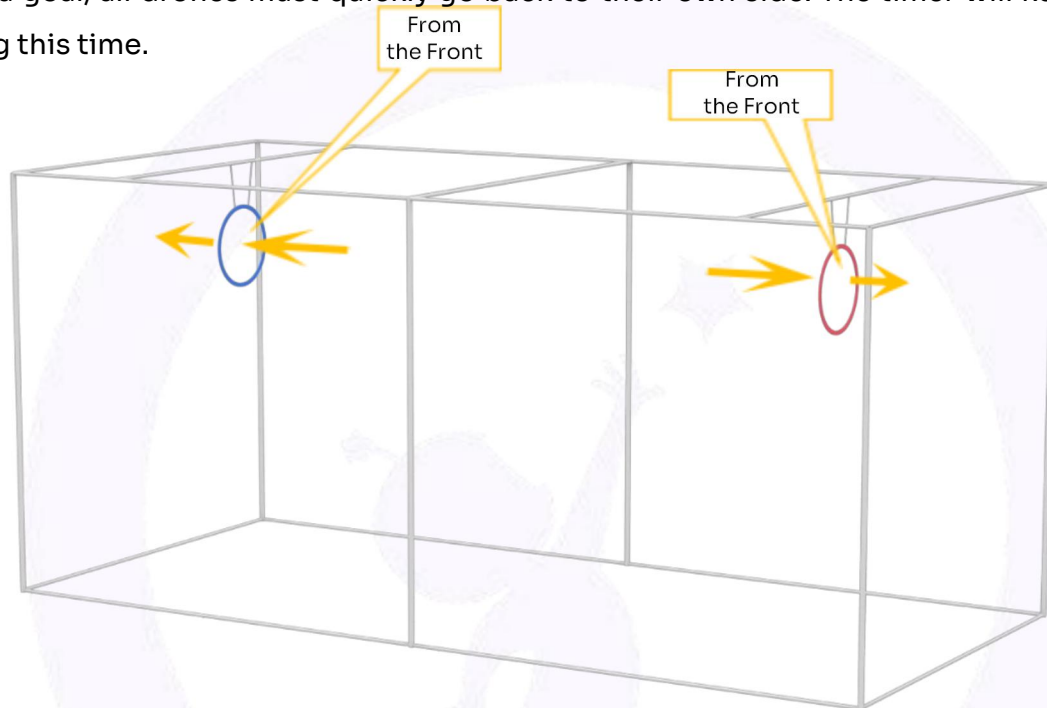
4.3.3.2 Before the match, teams decide which side (red or blue) to play on by flipping a coin or using another random method. Teams switch sides at halftime.

4.3.3.3 Before the match starts, each team must place their drones behind their own goal. When the referee says “start”, players can fly their drones to attack and defend.

4.3.3.4 Scoring: A team gets 1 point when any part of its drone fully flies through the other team’s goal from the front (the whole drone must pass through).

If a drone flies through its own goal from the front, the other team gets 1 point.

After a goal, all drones must quickly go back to their own side. The timer will keep running during this time.



**Fig.5 Front-Pass Diagram**

4.3.3.5 If a team’s drone breaks or cannot fly during the match, a backup drone can enter the field from behind the team’s goal ring. Once the backup drone is used, the first drone must stay on the ground and cannot fly again until the half or the match is over.

4.3.3.6 During the halftime break, teams will switch sides. Players may enter the field to change parts or equipment, but they must finish within the time limit.

4.3.3.7 Each team can replace a drone up to two times in one match, including when the drone is broken. Drone changes must be approved by the referee. Teams can change drones during the match, at halftime, or before a penalty shootout.

#### 4.3.4 Penalty Shootout (Knockout)

4.3.4.1 If a knockout match ends with the same score, the game will go to a penalty shootout.

4.3.4.2 Each team sends one drone to try a penalty shot, starting behind its own goal ring. The team whose drone scores in the shortest time (counted in seconds) wins. If both teams take the same time, more rounds will be played until one team wins.

4.3.4.3 Each drone has 30 seconds to try scoring. If it cannot score in time, the shot is counted as failed.

#### 4.3.5 End of a match

4.3.5.1 When the referee blows the final whistle or says the match is over, all drones must stop. Goals scored after that do not count.

4.3.5.2 The referee will read the final score. If something is wrong, the team may ask for a fix. If there is no problem, the team must sign to confirm. If there is a disagreement, a student can report it to the head referee. Once the head referee makes a decision, no more appeals can be made. Teams must confirm the score before leaving. No appeals are allowed after leaving the field.

4.3.5.3 After the match, teams must return the field to its original setup and take their drones with them.

### 5. Safety

5.1 Participants must set an unlock pattern for their drones. The drones should not be started by accident or because of interference.

5.2 Main controllers and other parts must be covered with safety covers. Teams cannot take apart or change commercial drones.

5.3 Unless stated otherwise, all drones must have propeller guards. Propeller blades must not be exposed. If a broken blade is showing, the referee can stop the drone from flying.

5.4 Metal propellers are not allowed. If a drone has any part that may be dangerous or may affect the match, it will be disqualified by the referee.

5.5 Team leaders and coaches must make sure all training is safe. If there are any safety problems, the team will be responsible.

### 6. Fouls and Disqualification

6.1 If a team is more than 15 minutes late after the match starts, it will not be allowed to play in that round.

6.2 If a team has a false start for the first time, it will get a warning. The drone must return to the starting point and wait for the referee. If there is a second false start, the team will not be allowed to continue that round.

6.3 Only the players in the current match can fly drones. Other players near the field are not allowed to fly drones. If a drone is flown without permission, the team will get a warning the first time. The second time, the team will not be allowed to finish that round.

6.4 If any team member enters the field during the match, the team will not be allowed to continue that round.

6.5 If a drone lands, it can only take off again by using the remote controller. If someone touches or adjusts the drone by hand, the team will not be allowed to continue that round.

6.6 After a goal is scored, both drones must return to their own side right away. If a team doesn't return their drone within 20 seconds, the other team gets 2 points.

6.7 If a team goes online, downloads files, or takes photos or videos of the field, their score for that round will be cancelled.

6.8 If a team contacts a coach or parent without permission from the chief referee, their score for that round will be cancelled.

6.9 If something happens that is not in the rules, the chief referee will decide. The organizing committee gives the chief referee the right to explain and apply the rules.

6.10 These rules are the only guide for all referee decisions. During the match, referees have full authority. Their decisions are final. Referees do not have to check video recordings. If a team wants to ask about a decision, a student representative must speak to the chief referee between matches. Once the chief referee makes a decision, no more appeals will be accepted.

## **7. Rankings**

7.1 Teams in each group will be ranked based on how far they go in the competition.

7.2 Awards are given based on the team's ranking. Teams with 0 points or that quit the competition will not get a ranking. Awards include Champion, Runner-up, Third Place, and First/Second/Third Prizes.

**Appendix I:**

<b>Scoring Sheet of Drone Cup</b>				<b>Division</b>	<b>Preliminary</b> ---	<b>Team</b>
					<b>Intermediate</b> ---	<b>__ VS __</b>
<b>Red No.</b>		<b>Blue No.</b>				
<b>Red team</b>		<b>Blue team</b>				
First-half scoring		First-half scoring				
Second-half scoring		Second-half scoring				
<b>Points</b>	:					
<b>Penalty Shootout</b> ( Yes___No___ )						
Score1 Time	Score2 Time	Score3 Time	Score1 Time	Score2 Time	Score3 Time	
<b>Winner</b>	___Side NO.					

## Appendix II:

__Group	__1	__2	__3	__4	Points	Highest Points	Rank
__1							
__2							
__3							
__4							

Note: This example assumes a group of 4 teams playing a single round-robin, where each team plays one match against every other team in the group.