

October 1, 2025 <5th Revision>

RULE BOOK

DRONESOCCER

- Class 40 -

English



These regulations will take effect on January 1, 2026.

October 1, 2025 <Key Updates of the 5th Revision>

- Addition of VAR Usage Items (Rule 5-2-n):
 - Include items related to the use of VAR by the head referee.
- Revision of Terminology (Rule 9-4-f):
 - Change from "League" and "Tournament" to "Group Stage" and "Knockout Stage."
- Revision of Match Result Criteria (Rule 10-1, 10-2):
 - Changed from "The team that wins two sets first wins the match" to "A team with 1 win and 2 draws is recognized as the winner."
- Deletion of Rule 11-3-a: Removed due to conflict/duplication with Rule: 3-5-b; a "Game Loss" is the correct ruling. Addition of "12. Video Review" to the regulations.

October 1, 2023 <Key Updates of the 4th Revision>

- 1-4 Skyfence Walls:
 - Specific details added regarding the installation methods for Skyfence walls.
- 1-5 Goal Specification and Position:
 - New regulations established regarding the weight of the goal.
- 1-6 Material and Structure of the Goal:
 - Restrictions added to prevent advertisements from excessively covering the goal's surface.
- 6-1 Classification of Assistant Referees:
 - Assistant referees are now subdivided into Score Referees and Penalty Referees.

October 1, 2021 <Key Updates of the 3rd Revision>

- 1-3 Size of the Arena:
 - Inclusion of recommended standard arena specifications.
- 2-4 Ball Identification:
 - Specific details added regarding LED attachment methods.
- 2-5 Ball Color:
 - Colors for the ball and LEDs are now distinguished by player position.
- 3-3 Striker Substitution during Gameplay:
 - New method established for substituting a Striker after a crash.
- 8 Offense and Defense:
 - Precise criteria established for scoring and penalties.

October 1, 2019 <Key Updates of the 2nd Revision>

- 1-5 Goal Specification and Position:
 - Removal of goal sensors; decisions are now made by referees.
 - Goal size standardized to 60 cm.
- 3-1 Players:
 - Specific details added regarding the number of participating players and coaches.
- 5, 6 Head Referee and Assistant Referees:
 - Specific details added regarding the roles of referees.
- 9 Penalty Kick:
 - Specific details added regarding penalty kick procedures.

October 1, 2017 <Key Updates of the 1st Revision>

- Changed the inner diameter of the goal to 60 cm–80 cm.
- Limited the number of competition participants to 10 (including coaches).
- Scoring method changed from "all players can score" to "only the Striker can score."

October 1, 2016: Initial Establishment of Dronesoccer Regulations.

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1. Skyfence

① Surface of the Skyfence

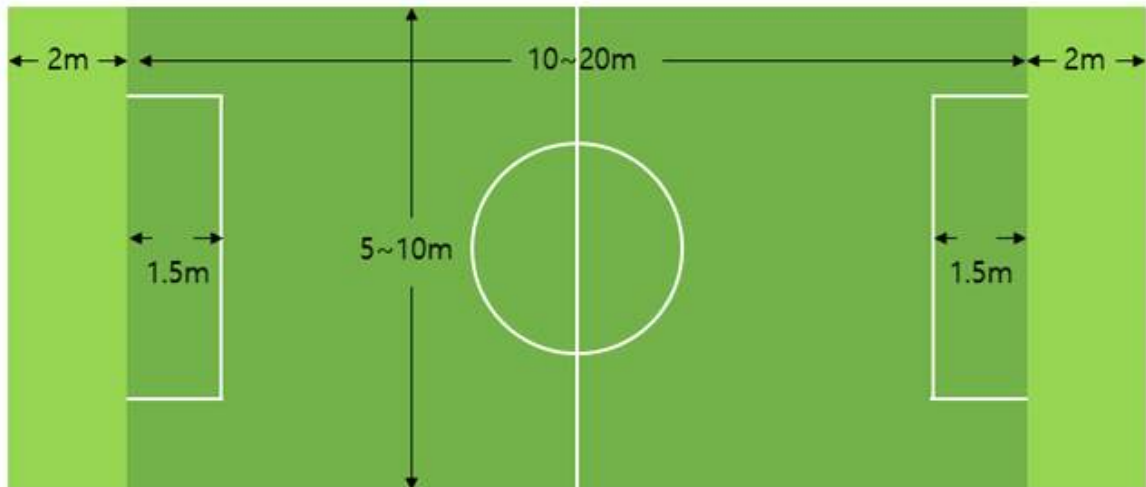
- ① (a) The floor must be flat and free of any obstacles.
- ① (b) The floor should preferably avoid hard surfaces.
- ① (c) The floor must be flat and stable enough for the drone ball to remain upright.

② Markings on the Skyfence

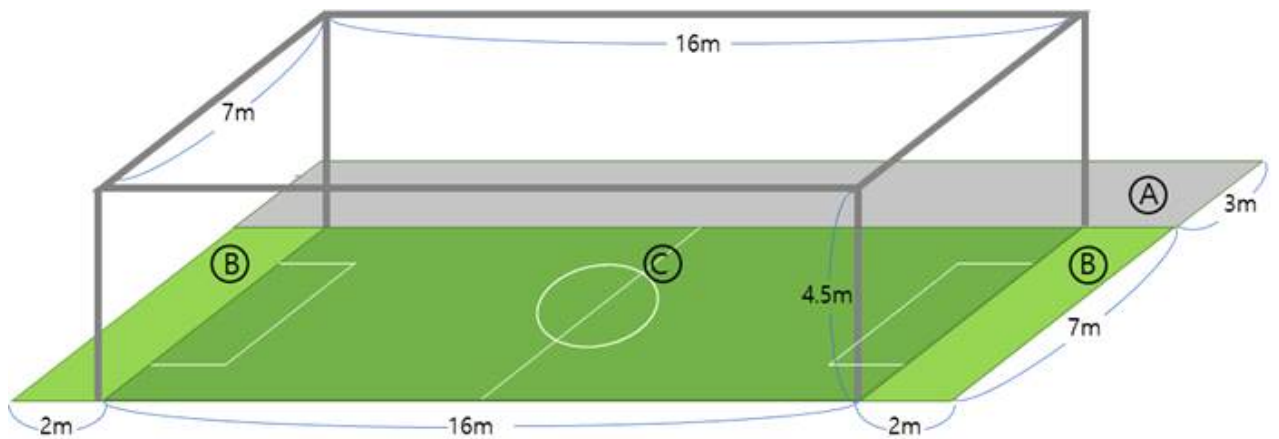
- ② (a) A Skyfence must be a rectangle, and a half line shall be marked in the middle, based on the longer side.
- ② (b) The takeoff point shall be marked either with a line or five dots, placed 1.5 m from the short side of the Skyfence.*
- ② (c) The pilot area shall be installed along the short side of the Skyfence, and its length may not exceed the width of the short side.
- ② (d) The pilot area must be 2 m wide, and a boundary marker should be placed behind it to clearly separate it from the repair area.

③ Size of the Skyfence

- ③ (a) The Skyfence should be rectangular, with the short side between 5 m and 10 m, and the long side between 10 m and 20 m. The ratio of the long side to the short side should be 1:2 or close to it.
- ③ (b) The height of the Skyfence should be between 4 m and 5 m, and there should be no obstacles that may cause damage or impediment of the game.
- ③ (c) A 2 m wide pilot area must be installed on both short sides of the Skyfence frame.



④ Despite the above rules, FIDA recommends using the standard size to ensure optimal player performance and for newly constructed Skyfences.



※ Standard Arena (A: broadcasting booth, B: pilot area, C: half line)

④ Walls of the Skyfence*

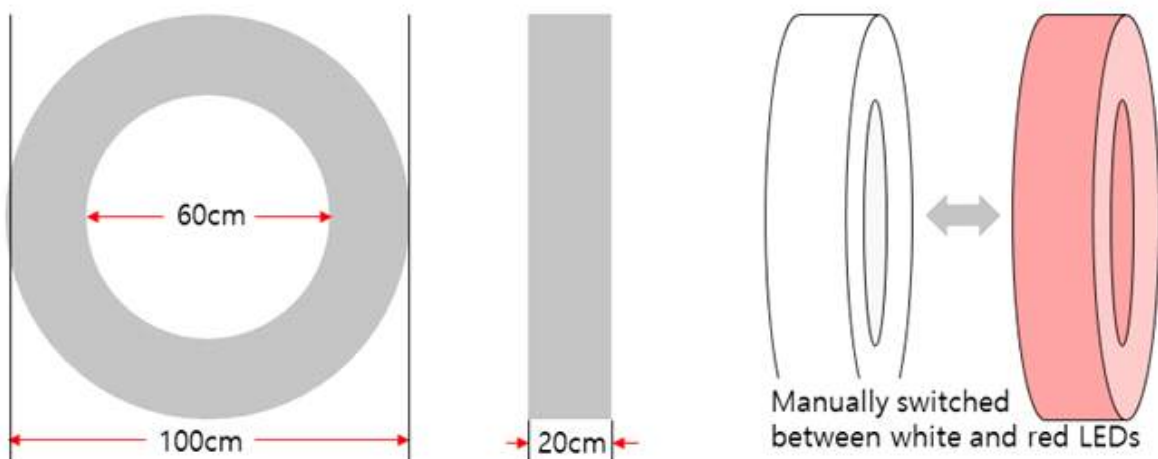
- ① The walls of the Skyfence must be enclosed with netting or wires to allow visibility from outside the Skyfence.
- ② If the walls are made of netting, the net must not deflect more than 20 cm when a drone ball traveling at a speed of 5 m/s hits it.
- ③ If the walls are made of wires, the wires must be installed vertically, with a thickness of 2.3-3.2 mm and spaced 10 cm apart.
- ④ Under no circumstances should the drone ball exit the Skyfence during a game.

* Include rules for Skyfence walls to protect players (Oct. 1, 2023)

5 Specification and Position of the Goal

- (a) The goal must be circular in shape, with an inner diameter of 60 cm \pm 1 cm and an outer diameter of 100 cm \pm 1 cm.
- (b) * Each goal must weigh between 10 and 15 kg, excluding any cables or connection wires.
- (c) Both goals must always be identical in size and weight.
- (d) Each goal must be positioned 1.5 m inward from the center of the short side of the Skyfence, toward the half line.
- (e) The height of the goal must be between 3 and 3.5 m, measured from the bottom of the Skyfence to the center of the goal. Each goal must be suspended from the ceiling of the Skyfence using wires on both sides. The goal must always face the center, and its direction must remain stable without swaying side to side.**
- (f) The goal must be securely installed to prevent falling and must not change shape during the game.

Dronesoccer Goal Specifications



* Prevent the goal from shaking violently (Oct. 1, 2023)

** For Class 40, except for goal posts on poles (Oct. 1, 2023)

⑥ Material and Structure of the Goal

- ① The goal must not be damaged during the game.
- ② The goal must have white and red LED lights inside or outside. In case of LED lights in outside it should not interfere with the game. The LED lights must be manually operatable from outside of the Skyfence.
- ③ When an advertisement is inserted or printed outside the goal, the advertisement must not interfere player's recognition of the LED light change for the goal. Adverts must be limited to text format and must not cover more than a quarter of the goal's surface when inserting images or markings.*

⑦ Advertisements

- ① In official competition organized by the association, no commercial advertisements are permitted during games, except for the official emblem and symbols of the event. However, limited commercial advertising may be allowed through the event's organizing committee as part of event support, with restrictions on the size and number of such marks set by the competition regulations.
- ② Commercial advertisements and team emblems are allowed only on the uniforms of participating teams. Even in such cases, political, religious, or offensive content that goes against public morals is strictly prohibited.
- ③ All participating teams and players must immediately comply with any request from the referees to remove unauthorized advertisements or promotional materials.
- ④ No participating team may place or display any form of advertisement inside the Skyfence.

2. Drone Ball

① Quality and Specifications

- ① (a) The drone ball must be enclosed in a rounded exoskeleton.
- ① (b) The diameter of the drone ball must be 40 cm \pm 2 cm.
- ① (c) The weight of the drone ball during play must not exceed 1,100 g.
- ① (d) The open area of any single surface on the exoskeleton must not exceed 150 cm².
- ① (e) The exoskeleton must not be easily damaged during gameplay in a way that could pose a risk to players or spectators.
- ① (f) Even if all above specifications are met, two different types of drone balls are not permitted to participate in the same competition.

② Advertising

- ② (a) In official competitions hosted by the association, no commercial advertisements are allowed on the drone ball except for the competition emblem, the organizing committee's symbol, and the registered trademark of the ball's manufacturer.
- ② (b) Competition regulations may limit the size and number of such marks.

③ Official Drone Ball

- ③ (a) The official drone ball certified by an association does not have to be examined for the specification qualifications before the competition hosted by the same association.
- ③ (b) A drone ball without an official certification mark, or any custom-manufactured drone ball, must be inspected for compliance with Rule ① (Quality and Specifications) before it can be used in competition.

④ Ball Marking

- ① Players must use a red or blue LED strip to distinguish their team's drone ball from the opposing team.

The LED strip for team identification must be arranged in a circular layout, ensuring the same number of visible LEDs from all horizontal directions. The diameter of the arranged LED strip must be at least 20 cm and no more than 40 cm. The strip must contain at least 6 individual LED elements per 10 cm. LED strips that do not meet these criteria must be inspected and approved prior to the competition.

- ② The Striker and Guide must attach tags to distinguish them from other players.
- ③ The tags for the Striker and Guide are determined by the competition rules. Tags must not be damaged or become detached during the game.
- ④ If the Striker's tag becomes detached during game and the opposing team is unable to identify the Striker, any scores made after the detachment will not be counted.

⑤ Ball Color

- ① The use of excessive colors (including LED) that interfere with team or position identification is not permitted.
- ② Only the following seven colors are allowed for use on the drone ball:

Identification	Color	User	Method
Team	Red	All players	LED
	Blue	All players	LED
Position	Green	No.1 Striker	LED, Tag
	Pink	No.2 Guide	LED, Tag
	SkyBlue	No.3 Libero	LED
	Yellow	No.4 Sweeper	LED
	White	No.5 Keeper	LED

- ③ Players are allowed to install additional LEDs to indicate the direction of the drone ball; however, the LED color must match the assigned position color.

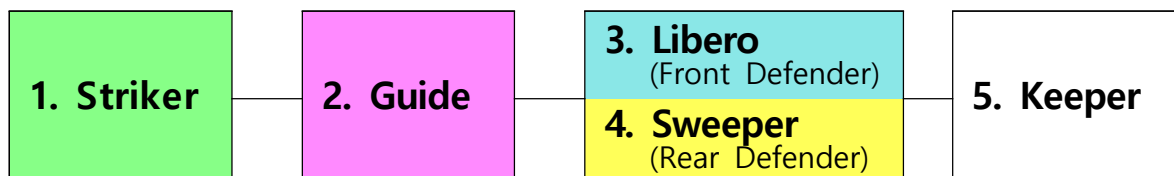
⑥ Radio Frequency Use

- ① As for the frequency used for wireless control of the drone ball, the range and strength of the radio wave must be determined in compliance with the radio wave related laws of the relevant country and region.
- ② However, even if the above rules are complied with, it is not allowed to use frequency range and equipment that may affect other's drone ball play other than the player.

3. Number of Players

① Players

- ① (a) The number of team members participating in the competition is limited to 10. In this case, the number of coaches included in the player roster is limited to no more than 3.
- ① (b) Each game is played with 5 players per team and 5 drone balls. Each player must control only one drone ball.
- ① (c) A game can proceed with a minimum of 3 players if there is a shortage of players or issues with drone balls.
- ① (d) The composition of a team is as follows, and no player's position may be duplicated during the game.



- ① (e) If the game start time has been clearly announced in advance, and fewer than 3 players—including attackers—are seated at the control stations before the game begins, the game will be considered a forfeit.
- ① (f) In the second or third set, if fewer than 3 players are seated at the control stations before the start of the set, that set is considered lost, and maintenance time for the next set begins.

② Player Substitution

- ② (a) Substitutions are allowed only before the start of a set. No substitutions are permitted during a set.
- ② (b) There are no limits on the number of substitutions or the number of players being substituted, as long as they are within the registered player list.
- ② (c) A coach listed on the team roster is allowed to participate as a player.

③ Substitution Procedure

- ① For player substitution, the fact of substitution and the player to be substituted shall be notified to referee.
- ② Above rule ① should be notified to the referee before the drone ball enters the Skyfence.
- ③ Substitute players must have the weight and markings of their drone ball inspected.
- ④ When substituting a player, the drone ball previously used may be replaced, but it is not mandatory. If the drone ball is not replaced, the inspection in ③ may be omitted.

④ Striker Substitution During a Game

- ① If the Striker withdraws from a set during the game, the Striker may be substituted by the Guide.
- ② To substitute the Striker, the Guide's drone ball must contact the withdrawn Striker's drone ball.
- ③ The Guide may touch the Striker after the Striker withdraws and puts the controller on the floor. The Head Referee determines if the touch counts for substitution.
- ④ If the substitution is successful, the head referee must announce the result of the substitution in accordance with Rule 5-⑦.*

⑤ Violation and Penalties

- ① If someone who is not a registered player for the set or listed coach** is found at the pilot area, a warning will be issued. If the individual remains at the pilot area after the warning, the set will be considered lost.
- ② If someone who is not a registered player operates a controller bound to a drone ball during a game, the team will be considered to have lost the game.***

* Specify the signalling method (Oct. 1, 2023)

** Allow the coach to stay in the pilot area (Oct. 1, 2023)

*** Remove unreasonable clauses (Oct. 1, 2023)

4. Player Equipment

① Basic Equipment

- ① Clothing – Players may wear free attire or team uniforms that do not interfere with gameplay.
 - If wearing free attire, players must wear identifiable accessories such as a hat, vest, or a marker larger than A4 size to distinguish team affiliation.
- ② Drone Ball – A drone ball that complies with official regulations.
- ③ Controller – One controller bound to the player's designated drone ball.
- ④ Batteries – Spare batteries necessary for the game.

② Additional Equipment

- ① First-Person View (FPV) Equipment
 - Optionally first-person view video equipment can be worn or carried
- ② Spare Drone Ball
 - Spare drone balls may be carried in case of damage. Batteries must be removed and kept separate.
- ③ Other Accessories
 - Battery checkers and essential parts/tools for emergency repairs necessary for gameplay operations.

③ Prohibited Equipment

- ① Equipment with lighting features that could interfere with the opponent's play.
- ② Radio-transmitting devices that could disrupt the opponent's control or gameplay.
- ③ Audio devices that may interfere with the game.
- ④ Any equipment that has been modified or altered to enhance performance.

④ Violations and Penalties

- ① Both teams are responsible for checking each other's equipment before the game. Equipment that could be misunderstood must be disclosed to the opposing team.
- ② If a player chooses not to use or carry prohibited equipment before the game begins, the game proceeds as normal.
- ③ If prohibited equipment is present but agreed upon by the opposing team before the game, no penalties will be applied.
- ④ However, if the violation begins or is discovered during gameplay and is judged by the referee to have influenced the game, the set will be considered a loss for the violating team.

⑤ Advertising on Equipment

- ① Political or religious messages may not be displayed on either basic or additional equipment. However, customary expressions may be permitted at the referee's discretion.
- ② Any violation of this rule must be corrected before the game begins. If not corrected and discovered after the game, the outcome will not be affected retroactively.

5. Head Referee

① Authority of the Head Referee

Every game must have a head referee appointed, who holds full authority over the enforcement of dronesoccer rules and regulations. The game is conducted under their supervision.

② Authority and Duties

The head referee is responsible for conducting all games smoothly, fairly, and efficiently, and is granted the necessary authority to do so.

- Ⓐ Enforces the rules of dronesoccer.
- Ⓑ Coordinates with assistant referees to manage the game.
- Ⓒ Ensures that the drone balls used meet the requirements outlined in "Regulation 2. Drone Ball."
- Ⓓ Ensures that players' equipment complies with the requirements of "Regulation 4. Player Equipment."
- Ⓔ Records incidents during the game.
- Ⓕ Has the discretion to stop the game in case of any rule violation.
- Ⓖ May stop the game due to any kind of external interference.
- Ⓗ Can remove a player from the game if their health or safety is deemed at risk.
- Ⓘ May take disciplinary action against irresponsible team officials and expel them from the technical area or the surroundings of the field at the referee's discretion.
- Ⓙ Prohibits entry of unauthorized individuals into the playing area.
- Ⓚ Signals the resumption of play after an interruption.
- Ⓛ May adjust inter-set break times flexibly, but must ensure a minimum of 5 minutes for rest and strategy discussion.
- Ⓜ May stop, suspend, or terminate the game due to any form of external disturbance.
- Ⓝ The head referee may overturn or correct a decision with the assistance of VAR in matches where VAR is in operation.

(Revised: Oct 1, 2025)

③ Position of the Head Referee

- ① The head referee must be located in a position that allows effective oversight and should be visible to all players during gameplay.
- ② The head referee may use wireless or wired communication tools and may operate from a designated control room if necessary. However, even in this case, they must be able to observe all players.

④ Referee's Decisions

- ① Decisions regarding scoring, gameplay, and game results made by the head referee are final.
- ② A decision may be changed only if the game has not yet resumed or ended and if the referee realizes an error or accepts input from an assistant referee.
- ③ In the event of disagreement between assistant referees, the head referee's decision takes precedence.
- ④ In cases of excessive interference or misconduct, the head referee may limit the duties of an assistant referee, reassign roles, and report the incident to the relevant authority.
- ⑤ If necessary, the head referee may use official game-recording equipment to review footage and reverse a decision. Privately recorded footage will not be accepted as evidence.

5 Referee Liability

The head referee (or assistants) is not liable for:

- Ⓐ Injuries to players, officials, or spectators.
- Ⓑ Property damage.
- Ⓒ Decisions made in accordance with the rules or normal procedures that result in harm to individuals, clubs, companies, associations, or other organizations.
- Ⓓ Other non-game-related incidents occurring during game operations.

Referee decisions may include:









- Ⓔ Whether conditions (arena, weather) are suitable to proceed with the game.
- Ⓕ Whether to abandon the game for any reason.
- Ⓖ The suitability of equipment and drone balls used in the game.
- Ⓗ Whether to stop play due to interference from spectators or issues in the stands.
- Ⓘ Whether to stop play to allow an injured player to be treated off the field.
- Ⓙ Whether to exclude a player from the game due to injury.
- Ⓚ Whether to allow or disallow specific clothing or equipment worn by players.
- Ⓛ Whether certain individuals (e.g., team or stadium officials, safety managers, photographers, or media personnel) may remain near the field (when within the referee's jurisdiction).
- Ⓜ Any other decisions in accordance with game rules or relevant league/association regulations that fall within the referee's duties.

6 Referee Qualifications

- a) Referee qualifications are governed by separate regulations established by the association.
- b) The association must conduct training programs to ensure consistent and unified application of dronesoccer rules by referees.

7 Referee Signals

- a) The head referee must use a whistle or equivalent device to signal the start and end of a game and must be positioned where both teams can see them clearly.
- b) The referee must use standardized signals to ensure they are easily understood. If alternative signaling methods or tools are to be used, they must be announced in advance.

Category	Ready	Start of set	Completion of Striker substitution	End of set
Hand signal				
Sound signal (Whistle)	 Long 1 time	 Short 1 time	 Short 2 times	 Short 1 time, Long 1 time

6. Assistant Referees

① Classification and Role*

- ① Two assistant referees shall be appointed for each game. They shall carry out their duties in accordance with the official rules of dronesoccer.
- ② Despite the above, the number of assistant referees may be increased up to four to ensure accurate assessment of goals and penalties. In such cases, the additional assistant referees shall be designated as follows:
 - Score Referee: Responsible for determining whether a goal has been scored and identifying penalties committed against the Striker.
 - Penalty Referee: Responsible for identifying defensive penalties committed near the goal area.
- ③ Assistant referees shall be positioned in a designated area between the pilot area and the spectator section, with a clear line of sight to both the goal and the scoreboard.
- ④ When necessary, assistant referees may be stationed in the control room specified in Rule 5, where they shall perform their duties under the direction of the referee.

* Revised the subheading from "Authority of the Assistant Referees" to Classification and Role of Assistant Referees (Oct. 1, 2023)

** Updated to reflect the distinct roles within a system of four assistant referees. (Oct. 1, 2023)

② Authority and Duties









- ① Assist the head referee in ensuring the smooth operation of the game.
- ② Monitor all matters related to the players participating in the game.
- ③ Inspect players' equipment, uniforms, and identification numbers before they enter the Skyfence.
- ④ Confirm the official player list and the players designated to participate in the game.
- ⑤ Notify the head referee when both teams are ready.
- ⑥ Continuously monitor players and their equipment throughout the game.
- ⑦ Be positioned closer to the goal than the head referee, and be responsible for judging scores, offsides, and penalties. At the end of each set, calculate and report the total score to the head referee.
- ⑧ Supervise the repair area to prevent inappropriate behavior and restrict access to authorized personnel only.
- ⑨ Record any suspensions of play due to external disturbances, including the causes.
- ⑩ Assume the duties of the head referee if the head referee is unable to continue.
- ⑪ Continuously monitor the arena, repair area, and spectator section, and take necessary actions to ensure the smooth operation of the game.

③ Assistant Referee Qualifications

- ① The qualification of the assistant referee shall be determined by the separate rules of an association.
- ② The association shall conduct the assistant referee training and etc. for consistent and unified apply of dronesoccer rules.

④ Assistant Referee Signals

- ① Assistant referees must signal goals, offsides, and penalties using a flag, LED, or other approved devices. They must be positioned where players from both teams can clearly see the signal.
- ② When an assistant referee identifies a penalty that warrants a penalty, they must signal it promptly. For penalty calls, the assistant referee may use a short whistle blow (one time) or a designated penalty display board.
- ③ Assistant referees must use the standardized signals to ensure clear communication. If any alternative signaling methods are to be used, they must be announced in advance.

Category	Score approved	Score disapproved	Return declared	Return completed
Flag				
GOAL LED Color	 turn RED	 remain WHITE	 remain RED	 turn WHITE

7. Start and End of a Game

① Number of Sets and Set Duration

- ① (a) A game consists of 3 sets, each lasting 3 minutes.
- ① (b) The number of sets and the duration of each set may be modified in advance according to the specific competition regulations.

② Preparation

- ② (a) The team that wins the coin toss shall have the right to choose either the left or right pilot area. Once selected, the pilot area shall remain fixed for all three sets. However, the head referee may order a change if the left and right pilot areas are deemed unfair.
- ② (b) Once the pilot areas have been determined, the players of either team may not request or complain about the decision.
- ② (c) After the pilot areas have been assigned, each team's captain may inspect the goal designated as their scoring target.
- ② (d) Despite the above, the pilot area may be designated in advance to ensure the smooth operation of the competition. In such cases, if a team requests it before the start of the competition, the pilot area must be determined using the method described in clause ①(a).
- ② (e) Despite the provisions of clause ①(b), the head referee may order a change of pilot area on a set-by-set basis if they determine there is an unfair condition that cannot be otherwise corrected.

③ Start and End of a Set

- ① The head referee, or a designated official by a head referee, shall announce the start and end of each 3-minute set using sound signals.
- ② A "ready" signal must be given at least 10 seconds before the "start" signal. However, if both teams are confirmed to be ready, the start signal may be given at any time within that 10-second window.
- ③ The number of ready signals may be increased or adjusted based on arena conditions; however, at least one ready signal must be given.
- ④ The start signal must be clearly distinguishable (either by sound or hand signal) and must follow the ready signal unpredictably to prevent teams from anticipating the exact moment of the start.
- ⑤ Time-outs are not permitted during a set.

④ Repair and Suspension

- ① After the end of a set, the head referee may grant 5 minutes of repair time before the start of the next set. The five-minute period begins when all players have retrieved their drone balls and exited the Skyfence.
- ② Each team must use the repair time between sets for drone maintenance and strategic discussion.
- ③ A minimum of 5 minutes of repair time shall be guaranteed, and the head referee may extend this time if necessary to ensure smooth operation of the game.
- ④ Repair time shall not be extended solely because a team is not ready to start the next set.
- ⑤ If a team loses a set due to delays caused by the repair of three or more players, the head referee may grant an additional 3 minutes before the start of the next set, in addition to the standard repair time.
- ⑥ From 10 seconds prior to the game start signal until the end of the set, no person other than the head referee may interfere with or suspend the game.

- ⑨ If the game is suspended by the head referee due to safety concerns or arena system issues, the score and remaining time at the point of suspension shall be recorded and applied upon resumption of the game.
- ⑨ Notwithstanding the above rules, the set shall be immediately declared void and stopped in the following cases:
 - When the game cannot continue due to serious damage to arena facilities.
 - When the head referee determines that play cannot resume within one hour due to critical issues.

⑤ Start of the Next Set

- ① At the conclusion of the five-minute repair time, all drone balls must be placed at the designated takeoff points, and all players must return to their pilot areas.
- ② If any player remains inside the Skyfence at the end of the repair time, they must exit immediately with their drone ball.
- ③ Adjustments to the Striker's mark and team mark LEDs are not included in the five-minute repair time and may be made upon the referee's request, even after the repair time has ended. During this period, no other repairs may be made.
- ④ If the Striker notifies the referee of a forfeit of the set prior to the issuance of the ready signal (10 seconds before start), the Guide may substitute the Striker without following the formal substitution procedure. The referee must promptly inform the opposing team of the substitution.
- ⑤ Once the head referee confirms that both teams' marks and LED indicators are ready after the 5-minute repair time, the referee shall declare the ready signal (10 seconds before start) and commence the next set.

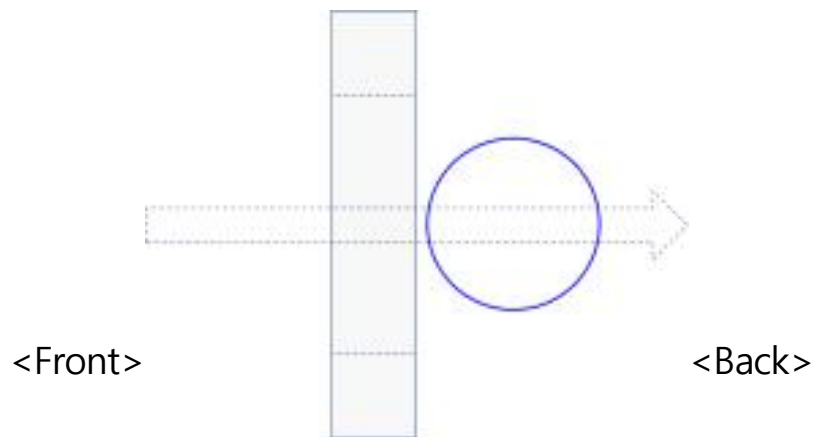
⑥ Game Abandonment

Abandonment or deliberate delay of a game shall be considered a game loss, unless both teams and the head referee have agreed to such conditions prior to the start of the game.

8. Offense and Defense

1 Scoring

- (a) A goal is awarded when the Striker's drone ball completely passes from the front to the back of the opponent's goal.



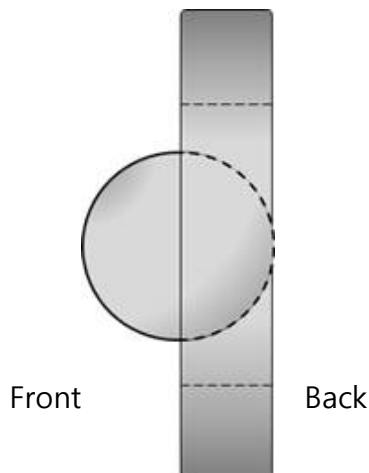
- (b) A goal shall not be counted if:
- the player is in an offside position at the time of scoring.
 - the drone ball fails to completely pass through the goal and rebounds.
- (c) If the Striker passes through the opponent's goal in the reverse direction (back to front), the goal does not count, and the player is considered offside.

2 Offside

- (a) If the Striker passes through the opponent's goal in any direction, the team enters an offside state and cannot attempt to score while in that state.
- (b) In order to clear the offside situation, all drone balls from the scoring team that were inside the scoring half (opponent's half) must return to their own side, behind the half line.
- (c) In the offside situation, if a drone ball becomes uncontrollable and cannot be returned from the scoring half (opponent's half), the offside situation remains until the player announces the set abandonment and put down their controller.
- (d) If the drone ball in the situation (c) is the Striker, the new Striker substituted by rule 3-4 must return to home team's area behind the half line to clear the offside situation.

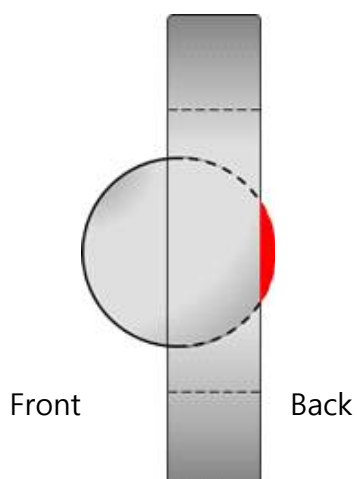
③ Defense

- ① Defense includes all actions taken to prevent the opponent from enabling the Striker to score.
- ② While defending, players may pass through their own goal from front to back, whether intentionally or unintentionally.
- ③ However, reverse entry into the goal (from back to front) is not permitted under any circumstance.
 - If more than half of the drone ball enters the goal from the front and comes back out, it is considered a reverse entry.
 - If a defender enters the goal from the back side, even slightly, it is also considered a reverse entry.



<Figure 1>

As shown in Figure 1, if the drone ball does not protrude the back of the goal, it is considered a valid defensive position.



<Figure 2>

As shown in Figure 2, if the drone ball passes the back of the goal — even slightly, whether intentional or not — the drone ball should not advance forward. It should retreat and return to its original defensive position around the outer side of the goal.

9. Penalty Kick

① Penalty Award

A penalty kick shall be awarded in the following cases:

- ① When a team violates the offside rule and scores consecutive goals (Violation of Rule 8-②-①).
- ② When a player passes through their own goal in the reverse direction (Violation of Rule 8-③-③).
- ③ When a player receives more than two warnings, including those specified in Rule 11-②. Warnings are accumulated within a single game and reset for subsequent games.

② Offset of Penalty

- ① In a set, penalty kicks may be awarded to one team after offsetting the total number of penalties committed by both teams.
- ② The number of penalties must be recorded in the official competition records, without applying offsets.

③ Penalty Kick Method

- ① When: after the completion of each set.
- ② Format: A one-on-one game between the Striker and the Keeper.
- ③ Duration: 5 seconds per each penalty
- ④ The Striker takes off from the half line. The Keeper starts from the same position as at the beginning of the game.
- ⑤ The 5-second period begins upon the referee's signal. Scoring rules are the same as regular game.
- ⑥ Multiple goals may be scored within the time limit. In such cases, Rule 8-② also applies.
- ⑦ If specified in the competition rules, the awarded penalty kicks may be converted into points and added directly to the game score, without conducting actual penalty attempts.
- ⑧ In such cases, the added point total shall be reflected in the official competition record.

④ Penalty Kick Procedure

- ① After a set ends, the head referee instructs both assistant referees to verify the number of penalties. During this process, players are not permitted to exit the Skyfence.
- ② The head referee will calculate and award penalty kicks to one team by offsetting the total number of penalties committed by both teams.
- ③ The head referee allows both assistant referees and one designated player from each team to enter the Skyfence for the penalty kick.
 - Assistant Referees: All drones, except for one from each team, are collected and placed near the Skyfence entrance. No one is allowed to touch them.
 - Players: The Striker and one defensive player participate. They may replace their batteries and prepare for the penalty kick. The Striker is positioned at the half line; the Keeper is positioned below the goal.
- ④ The head referee announces the penalty duration and gives the start and end signals to initiate the penalty kick.
- ⑤ After the penalty kick concludes, the set officially ends and a 5-minute repair time is granted.
- ⑥ If a match is conducted in the Group Stage, a penalty kick must be taken in all cases to calculate goal difference.

(However, this does not apply if the penalty is offset as points in accordance with the competition regulations.)

In contrast, if the match is conducted in the Knockout Stage, the team awarded the penalty kick may choose to forgo it.*

* Terminology revised from "League" and "Tournament" to "Group Stage" and "Knockout Stage" (Oct. 1, 2025).

10. Winning Decisions

① Winning Team

- ① (a) The team that scores more points in a set wins that set.
- ① (b) If both teams score the same number of points or no points at all, the set is considered a draw.
- ① (c) After up to three sets have been played, the team that has won two sets first or has won more sets^{***} shall be declared the winner.

② Draw

- ② (a) If, after three sets, no team has won two sets first or has won more sets^{*}, an extra time may be conducted.
- ② (b) The format of the overtime set^{*} is the same as the previous sets.
- ② (c) If, after the extra time, no team has won two sets first or has won more sets^{***}, a penalty shootout shall be conducted.
- ② (d) However, if the game allows for a draw, overtime and shoot-outs will not be conducted.

③ Shoot-out

- ③ (a) The shoot-out follows the format of a penalty kick, with three players from each team participating.
- ③ (b) Keeper may be freely designated, and players participating in the shoot-out may also serve as Keeper.
- ③ (c) If the shoot-out ends in a draw, one additional player from each team is added until a winner is determined.
- ③ (d) When adding players one by one, the first team to score while the other fails is declared the winner.^{**}
- ③ (e) Regardless of the length of the shoot-out, the original shooting order must not be changed.

* 'Changed from using the words "four sets" and "overtime" to overtime. (Oct. 1, 2023)

** Add a ④ to explain the ③. (Oct. 1, 2023)

*** Revised from the previous rule where the team winning two sets first was declared the winner; now a team with 1 win and 2 draws is also recognized as the winner (Oct. 1, 2025).

10. Violations

① Type of Violations

- ① (a) Violations are categorized into warnings, set losses, and game losses.
- ① (b) Upon receiving two accumulated warnings, the opposing team is awarded one penalty kick. Warnings carry over to the next set, but are reset in the next game.
- ① (c) A set loss results in the team being considered as having lost that set, while a game loss results in the team being considered as having lost the game.

② Warning

- ② (a) When a person who is not a player remains in the pilot area.
- ② (b) When a minor act of unsportsmanlike behavior is directed toward the referees, opposing players, or spectators during the game.
- ② (c) When a player modifies or moves arena equipment without the referee's permission in a way that creates an advantage for their team.
- ② (d) When the drone ball is moved before the game start signal.
- ② (e) When the player fails to comply with a legitimate instruction from the referee.

③ Set Loss

- ③ (a) Deleted (Revised: Oct 1, 2025)
- ③ (b) When a person not participating in the set intentionally manipulates a drone ball in play.
- ③ (c) When a team intentionally alters the color of its drone ball, which is used to distinguish teams.
- ③ (d) When a drone ball is moved using physical force (e.g., hands, feet, or equipment) instead of radio control to gain an advantage.
- ③ (e) When the same warning is received more than once with the intent of delaying the game or protesting a referee's decision.

④ Game Loss

- ① When a player intentionally uses a drone ball to threaten or endanger others.
- ② When a player commits a serious act of unsportsmanlike behavior toward the referee, opposing players, or spectators during the game.
- ③ When a player who is not on the official participant list is unlawfully included in the game.

Addendum 1. Glossary

1. General Term

Term	Description
FIDA	<ul style="list-style-type: none">• Federation of International Dronesoccer Association
Association	<ul style="list-style-type: none">• Member association or corresponding body affiliated to FIDA
Dronesoccer	<ul style="list-style-type: none">• A game in which 5 players from each team control the drone in the shape of a soccer ball to score in a round goal of the opponent team
Rule Book	<ul style="list-style-type: none">• Dronesoccer rule book

2. Arena

Term	Description
Dronesoccer Arena	<ul style="list-style-type: none">• The space including the pilot area, broadcasting booth, spectator section and other facilities
Skyfence	<ul style="list-style-type: none">• A cage in which the sides and roof are woven with wire mesh or net to prevent the drone ball from going out
Long side	<ul style="list-style-type: none">• A long side of rectangular Skyfence
Short side	<ul style="list-style-type: none">• A short side of rectangular Skyfence
Half line	<ul style="list-style-type: none">• A line dividing the center of the Skyfence floor in two separates area of each team
Takeoff point	<ul style="list-style-type: none">• The place where the drone ball waits to take off before the start of the game. It is indicated by 5 dots or line and is located below the goal
Pilot area	<ul style="list-style-type: none">• Where players control drones
Repair area	<ul style="list-style-type: none">• A space behind the pilot area or a separate space where players can repair drone balls or discuss strategy
Broadcasting booth	<ul style="list-style-type: none">• An area located on one side of the arena and responsible for broadcasting competition

Drone ball	<ul style="list-style-type: none"> • A 'sphere'-shaped drone with a diameter of 20 or 40 cm used in dronesoccer games
Goal	<ul style="list-style-type: none"> • Suspended in the ceiling in the shape of a donut and must pass through it to be considered a goal.

3. Player and Referee

Term		Description
Player		<ul style="list-style-type: none"> • A person who controls a drone ball in a dronesoccer game
Striker		<ul style="list-style-type: none"> • A player who can score
Guide		<ul style="list-style-type: none"> • A player who plays the role of hitting the opponent defender in order to make it easier for Striker • A player who can substitute Striker through a procedure that follows the appropriate rules
Libero		<ul style="list-style-type: none"> • A player who plays the role of hitting the opponent's Guide and Striker in order to protect the defender in front of the goal as one of the defenders
Sweeper		<ul style="list-style-type: none"> • A player who blocks the opponent Striker's goal approach as one of the defenders
Keeper		<ul style="list-style-type: none"> • A player blocking the goal as one of the defenders
Referee		<ul style="list-style-type: none"> • A person appointed by the association for a fair game in dronesoccer and consists of one head referee and four assistant referees
Head Referee		<ul style="list-style-type: none"> • A person who is appointed by the association and is in charge of the game with all authority and responsibility in accordance with the rules
Assistant Referee	Assistant Referee	<ul style="list-style-type: none"> • Person who assists the Head Referee and is in charge of the progress of the game (Score and Penalty)
	Score Referee	<ul style="list-style-type: none"> • Determines whether a goal has been scored and whether an Striker has made penalty.
	Penalty Referee	<ul style="list-style-type: none"> • Judges defensive penalty around the goal.

Addendum 2. Video Assistant Referee (VAR)

VAR Protocol

The VAR protocol follows FIDA's dronesoccer operational philosophy. When using VAR, the competition organizer must refer to the latest technical documents from FIDA and the NGB to meet the requirements of the VAR System.

1. Purpose of VAR

- A. VAR is based on the collective efforts of referees and players to engage in drone soccer competitions with impartiality and good faith, serving the following purposes:
- To enhance the authority of drone soccer regulations and the competition.
 - To maintain uniformity and consistency in referee decisions.
 - To minimize the impact of misjudgments on the game results.
- B. Any actions taken to excessively assert one's own arguments or interests—beyond a good-faith interpretation of the video consistent with the purpose of VAR—are outside the scope of this protocol and are considered unsportsmanlike behavior.

2. VAR System Configuration

- A. The configuration of the VAR System can be differentiated to suit the conditions of the competition. The specific configuration of the VAR System must be announced to all participants of the competition, and all participants must recognize the limitations inherent in that configuration.

Category	Tier 1 : Basic VAR	Tier 2 : Pro VAR	Tier 3 : Advanced VAR
VAR Referee	- No VAR Referee - 1 Replay Operator (RO)	- VAR Referee - Professional RO	- VAR Referee - 1 or more Assistant VARs - Professional RO
VAR Equipment	- 3 cameras - Video recording and playback device	- 5 cameras - Replay broadcasting - Professional VAR program	- 6 or more cameras - Replay broadcasting - Professional VAR program - VOR operation
Video Recording	- Both goals (2) - Entire arena (1) - Game footage including time and score	- Both goals (2) - Both pilot areas (2) - Arena (1) - Game time/score footage	- Both goals (2) - Both pilot areas (2) - Arena (2 or more) - Game time/score footage

B. Recommended Performance and Configuration Specifications for the VAR System

- Cameras: A minimum of 5 cameras (both goals, both pilot areas, and the entire arena).
- Real-time Recording and Playback Device
 - : Must support simultaneous 6-channel recording at a minimum of 1080/60p and slow-motion playback.
 - : Must support frame sync or timecode sync between each camera and the on-site score monitor.
- Recorded Video Storage Device: A storage and backup system capable of saving over 6 hours of footage at a write speed suitable for simultaneous recording.
- VAR Operating Software: A program capable of immediate slow-motion playback for replay segments.
- Other: Any other items necessary for VAR operations.

C. VAR (or VAR Referee): Video Assistant Referee

- The VAR must hold qualifications equal to or higher than those of a Head Referee as required by the competition.

D. AVAR (or VAR Assistant Referee): Assistant Video Assistant Referee

- Up to 2 assistant referees (AVAR1, AVAR2) may be appointed if necessary.
- An AVAR must hold qualifications equal to or higher than those of an Assistant Referee as required by the competition.

E. RO: Replay Operator Personnel responsible for operating replays for video review.

F. VARs: The video review officiating team, including all VAR referees, assistant VARs, and the RO.

G. VOR: Video Operation Room

- Operated by the VAR Referee, AVAR (Assistant Referee), RO (Replay Operator), etc.
- No individuals other than those specified above are permitted to enter the VOR.

3. Role of the VAR Referee

The VAR Referee plays a role in assisting the Head Referee of the competition to correct "clear and obvious errors" or "serious incidents" on their own.

- A. The VAR referee is an official who can independently access the game footage and may assist the Head Referee only in cases of a "clear and obvious error" or a "serious missed incident" related to the situations below.
- B. The VAR referee may recommend a "review" to the Head Referee but cannot make the final decision regarding the review.
- C. The VAR referee must inform the referees if the VAR System becomes inoperable for a specific reason.

4. Role of the Head Referee

[The Head Referee may correct a decision with the assistance of the VAR Referee when necessary.]

- A. The Head Referee must always make a decision. In other words, the Head Referee is not permitted to use VAR to make a decision without first "making an initial ruling".
- B. In addition to the footage provided by the VAR Referee, the Head Referee may make a judgment by comprehensively considering the situation on the field, the opinions of Assistant Referees, and evidence from other captured footage besides the VAR video, and this authority belongs solely to the Head Referee.
- C. An initial decision made by the Head Referee should not be overturned unless a video review reveals a "clear and obvious error".
- D. The scope within which the Head Referee may correct a ruling with the assistance of the VAR Referee is limited to the following cases:
 - Whether a goal was successful or failed (including buzzer-beater goals).
 - Correction of penalty decisions.
 - Correction of scores due to errors in the scoreboard, equipment, etc.
 - Disciplinary matters regarding a player or team.
 - Other matters where the Head Referee determines that VAR assistance is necessary.
- E. The correction of a ruling by the Head Referee via VAR must not affect other game situations besides scoring and penalties.
 - Involvement is not possible if it affects all subsequent game situations after a decision reversal that is not a scoring correction.
 - Example: Reversing a decision on a successful Striker substitution, drone ball regulation violations, etc.
 - However, involvement is possible regarding reasons for a set loss or

disqualification included in the drone soccer regulations.

- Example: Contacting a ball inside the arena, a player who has forfeited re-controlling a drone ball, etc.
 - Reversal of an offside clearance is possible, and only the relevant score will be deducted and reflected in the game result.
- F. The Head Referee must confirm the intention to use a challenge from the coaches of both teams before declaring the end of a set. It is impossible to correct a decision after the set has ended.
- Coaches of both teams cannot request a VAR challenge for a game where the final result of the set has already been announced.
- G. Notwithstanding the above regulations, if a misjudgment that seriously affects the game result is discovered through a VAR judgment, the Head Referee may order a replay of the remaining time. However, misjudgments that seriously affect the result are limited to the following:
- Cases where a set loss was declared because a set was interrupted due to a misjudgment.
 - Cases where it is judged that issues with arena facilities or equipment influenced the result of the game.

5. Roles and Duty of Care for Coaches and Players

[When the VAR System is applied, coaches and players have the following roles and duties of care.]

- A. The coach may request a review using a valid challenge ticket.
- B. While a review of a decision is in progress, players or team members (including officials) must not attempt to influence the review procedure or the final decision toward the head referee.
- C. During the review procedure, players must remain in the pilot area.
- D. A coach using a challenge ticket cannot directly request the VAR referee to review a specific part of the video.
- E. If the initial decision is corrected through a video review, the coaches of both teams cannot protest the result again.
- F. If a player or official without challenge request authority makes a challenge request, it is grounds for a warning. If there is no coach for a set, one person from the official entry list may be designated as an acting coach.

6. Video Challenge

The eligibility and timing for both teams participating in a game to request a video review are limited to the scope specified in this protocol. Repeated requests for video reviews that do not comply with the protocol are grounds for a warning.

- A. VAR is requested by the coaches of both teams to the Head Referee.
- All teams participating in the competition are granted a limited number of Video Challenge Tickets. When issuing tickets, a distinction must be made between the preliminary rounds and the main tournament, and the specific quantity and usage methods shall be determined by the competition regulations.
 - Coaches of both teams may request VAR directly to the Head Referee or through an Assistant Referee.
 - A coach may only request a VAR challenge when they believe a decision is incorrect and can specify the situation or time when the incorrect decision was made.
 - The specific situation and time can be identified using terms such as "the nth goal," "the nth penalty," or "the situation around X minutes and Y seconds".
 - If the decision is corrected as a result of the challenge, the number of issued tickets will not be deducted.
- B. The timing for a VAR request is from after the Head Referee blows the whistle to signal the end of the set until before the final result of the set or game is announced.
- C. The Head Referee must ask the coaches of both teams whether they wish to use a video challenge before announcing the final results of the game.
- D. The Head Referee may request a VAR review by their own authority even if there is no video challenge request from either team before announcing the results of the set.
- In cases where VAR is requested by the referee's authority, the reason for the request must be explained to both teams, and the VAR Challenge Tickets of both teams will not be deducted.
- E. The Head Referee may refuse a video challenge request for the following reasons:
- When the reason for the challenge request is unclear.

- When the content of the video challenge request does not comply with the VAR application regulations or is not applicable.
- When it is judged that the results of the VAR review will not affect the game.

7. VAR System in an Inoperable State

In matches where the VAR System is applied, if the VAR functions are not operating smoothly, the following guidelines shall be followed

- A. Regardless of the operational status of the VAR System, the initial referee's decision and the game result remain valid.
- B. The VAR Referee must inform the Head Referee of the VAR System's operational status; if the VAR Referee notifies the Head Referee of an operational failure, the Head Referee may refuse a coach's valid challenge request until operation resumes.
- C. If a misjudgment cannot be confirmed through the VAR System even while it is operating smoothly, the initial decision shall be maintained.
- D. The referee cannot overturn a decision regarding matters that are not confirmed as a result of the video review.

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The latest version of the Dronesoccer Regulations can be
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October 1st, 2025

Federation of International Dronesoccer Association