

6. Robot Combat MR Series

Level : Junior / Senior

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MR BATTLE LEGS (ROBOT COMBAT MR SERIES)	2



Robot Specifications

Must use the MR Series - Battle Legs wire control robot kit (Robot Combat MR Series) only. Robot kits can be contacted at <https://web.facebook.com/pal.manawisut>.

1. The total **net weight of the robot (including all materials attached to the robot body) must not exceed 750 grams** (robot + battery + remote control with wire + weight plates, etc.).
2. The robot can use a power source of two 3.7-volt batteries combined to 7.4 volts. The fully charged voltage capacity must not exceed 8.4 volts. **Only 18650 batteries are allowed, brand not restricted.** Verification will be based on the numbers indicated on the label of the battery. If contested by other competing teams, the referees reserve the right to use a multimeter to check the batteries.
3. Regarding the robot's feet, no equipment or tools of any kind that can fix the robot's feet to the field floor and leave sticky residue on the competition field may be installed or used, such as double-sided adhesive tape.
4. Must use MR Series motors only (TT Motor 90:1 / 250 RPM 7.4V). No motor modifications are allowed.
5. Do not use any parts or equipment that, once installed, can cause damage to the opponent's robot.
6. Do not modify the MR Series robot chassis and strictly do not add any other materials. All proportions must remain completely original, except for weight plates which can be used as provided in the robot kit.
7. Regarding the remote control wire elevating mast attached to the robot body, if it is damaged, broken, or lost, the match may continue as normal, provided that extra caution is taken regarding the remote control wire touching the field floor.

Competition Rules

1.1. Competition Format

1.1.1. One match consists of 3 rounds, with each round lasting 2 minutes.

1.1.2. The winner of the match is the team that achieves the best score across the 3 rounds, such as winning 2 out of 3 rounds. Winning each round awards **1 Yuko**. If neither team scores before time runs out, the match is considered a draw. If all 3 rounds are completed and no team has achieved 2 Yuko, the referees will make a decision as follows:

- [Case1](#) If both teams have 1 Yuko each (winning one round each) and there is 1 tied round, the team with the lighter weight will be the winner of that match (this case occurs frequently).

- **Example:**

Round 1: Team A wins

Round 2: Draw

Round 3: Team B wins

Decision: Decided by weighing; the team with the lighter weight will be the winner of that match.

- [Case2](#) If all 3 rounds are a draw, the team with the lighter weight will be the winner of that match (this case rarely occurs).
- [Case3](#) If 2 rounds are a draw and either team wins the remaining 1 round, that team is considered the winner of that match.

- **Example:**

Round 1: Draw

Round 2: Draw

Round 3: Team A wins

Decision: Team A is the winner of that match.

1.1.3. The competition will follow a **double-elimination** format, meaning a team is eliminated from the match after losing twice. Winning teams advance to the next match, continuing with a knockout format until the champion, 1st runner-up, and 2nd runner-up are determined as announced by the organizers.

Double Elimination is a tournament format where competitors must lose two matches to be eliminated from the competition, differing from single elimination where participants are eliminated immediately after a single loss. Competitors who lose their first match are moved to the "losers' bracket" and get a second chance.

Key Features:

Two Brackets: The competition is divided into two brackets: a winners' bracket for winners and a losers' bracket for those who have lost.

Second Chance: Losing in the winners' bracket does not result in immediate elimination; instead, teams drop down to the losers' bracket to find a way back to the finals.

Elimination: Competitors are officially eliminated from the competition only after losing for the second time (i.e., a loss in the losers' bracket).

The Finals: The double-elimination finals are decided by a matchup between the Winners Bracket champion and the Losers Bracket champion, with the Winners Bracket champion holding an advantage.

Winning Conditions:

- **Winners Bracket Champion:** Winning the final match makes them the champion immediately.
- **Losers Bracket Champion:** Winning the first match triggers a "bracket reset," requiring them to play the Winners Bracket champion a second time to determine the overall champion.

Advantages: This format offers more flexibility, gives competitors a chance to recover from a defeat, ensures fairer competition, and reduces the risk posed by a single mistake.

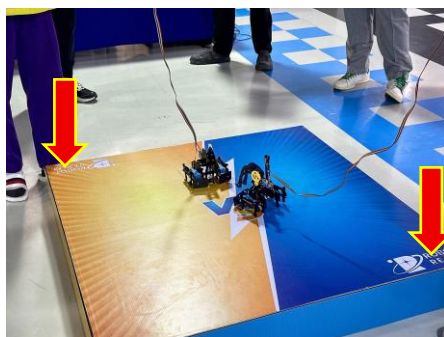
*** If the upper bracket team loses in the finals, a second match will take place.**

1.2. Start of Competition / Restart / End of Competition

1.2.1. Upon the referee's signal, contestants must report to the field together, with 20–30 seconds provided for preparation.

1.2.2. The robots will be placed on opposite sides within the designated zones, as shown in the example image. Contestants are permitted to hold and turn on the remote control switches; however, moving the

*****robots is strictly prohibited before the referee presses start on the timer*****



MR Series - Battle Legs wire control: The arena is a square measuring 120 cm x 120 cm.

1.2.3. In the first round, a coin toss or drawing will be held. The team that loses the draw must place their robot on the field according to the specifications (1.2.2), facing any side of the robot toward the opponent. Afterwards, the other team that won the draw will place their robot on the field. **Once placed, moving the**

robot's position is prohibited. During the competition, **the remote control wire must not touch the field floor or drag**, pull, or restrict the robot. (If warned 3 times, that team will be immediately forfeited for that round, subject to the referee's discretion).

1.2.4. To start the robot competition, the referee will give the signal to begin.

1.2.5. After submitting the robot for inspection, contestants cannot perform any further repairs until it is their turn to compete (with a 20–30 second preparation time). In the top 8 round, contestants are allowed to repair their robots only within the competition area; bringing in any equipment from external individuals is strictly prohibited.

1.2.6. From the second round onwards of that match, contestants must swap their robot placement positions.

1.2.7. The competition may only be stopped and restarted upon an official announcement by the referee.

1.2.8. When the match has officially ended and the head referee has announced the results, contestants must remove their robots from the field (as shown in image 1.2.2) and return them to the designated area assigned by the referees. Repairing or performing any actions on the robots is strictly prohibited.

1.3. Yuko Scoring

A score of 1 Yuko is awarded when:

- One side manages to cause any part of the opponent's robot to **touch the floor of the area outside the ring (out-of-bounds area)**. The side that achieves this first receives 1 Yuko.
- When any part of Team A's robot touches the floor of the out-of-bounds area due to the contestant's own action, 1 Yuko is immediately awarded to the opponent (Contestant B gets 1 Yuko).
- When either team's robot malfunctions or shows **no progress in movement for 5 seconds**, the other side is awarded 1 Yuko. For example, if Team A's robot is flipped over/knocked down for 5 seconds, Team B receives 1 Yuko.
- After the referee signals contestants to get ready at their designated spots on the competition field, if either team's robot moves before the referee presses start on the timer, the other side is immediately awarded 1 Yuko.
 - **The referee will count "1, 2, Start!" (and press start on the timer), subject to the referee's discretion and an agreement with the contestants on the counting method.**

Example:

Team A and Team B stand at their designated spots, ready to compete.

Team B presses the remote control.

The robot moves from its placement spot before the referee presses start on the timer.

Decision: Team A is the winner.

- Both robots grapple or lock together:
In cases where neither Team A's nor Team B's robot is flipped over/knocked down or pushed out of the competition ring, that round is considered a draw.
- If Team A's remote control wire hooks/tangles around Team B's robot, causing it to flip over/fall down or go out of the competition ring, Team B will win the match.
- During the match, if Team A's contestant kicks or trips on the arena, causing Team B's robot to flip over/fall down, Team B will win the match.
- If both robots touch the floor of the out-of-bounds area and it is impossible to clearly determine who touched it first, the referee will order a rematch.

1.4. Rule Violations

1.4.1. Contestants who insult or look down upon the opponent, whether through verbal communication or physical gestures, will receive a warning exceeding 1 time (if a second instance occurs, it will result in an immediate forfeit for that match, making the other team the winner instantly).

1.4.2. Throwing or bringing any parts or equipment into the competition field area will result in an immediate match forfeit.

1.4.3. Changing the robot during the competition will result in immediate disqualification from the game, awarding 2 Yukos to the opposing team to declare them the winner.

1.4.4. Contestants leaving the competition area without notifying the referees or without staff accompanying them outside: Exceeding 1 warning (if a second instance occurs, it will result in an immediate match forfeit).

1.4.5. Communication or guidance from external individuals who are not contestants, or external individuals disturbing the referees or contestants during the match: Exceeding 1 warning (if a second instance occurs, the team under the supervision of that individual will be immediately forfeited for that match).

1.4.6. Contestants taking the robot out of the competition area during the match:

1.4.6.1. In case the robot is taken out of the area and an external person helps repair it or interacts with it:

- Result in a forfeit for the match the contestant is about to compete in, awarding 2 Yukos to the opponent as the winner.
- After being forfeited for the upcoming match, result in immediate disqualification from the competition.

1.4.6.2. In case the robot is taken out of the area without any external person helping to repair it or any interaction, such as repairing the robot independently outside the area:

- Receive 1 warning (if a second instance occurs, result in immediate disqualification from the competition).

1.5. Penalties

1.5.1. Contestants who violate the rules and regulations in clause 1.4 will be immediately forfeited for that match, with 2 Yukos instantly awarded to the opposing team, or they will be immediately disqualified from the game. The offender has no right to protest.

1.5.2. Contestants who cause damage to the competition field will be immediately disqualified from the competition.

1.5.3. Contestants who display inappropriate behavior regarding the awards received or cause physical, verbal, or mental harm to the referees will be immediately disqualified from the competition, and the next ranked team will be promoted to receive that award instead.

1.5.4. Team supervisors who cause physical, verbal, or mental harm to the referees or disrupt the judging committee will have all teams under their supervision immediately disqualified and forfeited, even if they have already won an award ranking.

1.5.5. If a team supervisor is involved in any wrongdoing, all teams under their supervision will be immediately disqualified from the competition under these rules.

1.5.6. **The decision of the committee is final and cannot be contested after the completion of the competition in that category.**