



Robot Fighting League Standard Match Rules
[Enter Event Name]
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RFL Standard Match Rules
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| | | |
|--------|---|---|
| 1. | Introduction | 1 |
| 2. | Tournament Formats | 1 |
| 2.1. | Round Robin..... | 1 |
| 2.2. | Full Double Elimination Format | 1 |
| 2.3. | Modified Double Elimination Format | 1 |
| 2.4. | Super Modified Double Elimination Format..... | 1 |
| 2.5. | Match Pairings | 2 |
| 2.5.1. | Byes | 2 |
| 2.6. | Match Frequency | 2 |
| 2.7. | Match Duration | 2 |
| 2.8. | Determining a match winner..... | 2 |
| 2.8.1. | Knock-outs and Mobility | 3 |
| 2.8.2. | Entering Death Zones (if present) | 3 |
| 2.8.3. | Pinning & Lifting | 4 |
| 2.8.4. | Stranding / High Centering | 4 |
| 2.8.5. | Stuck or Entangled Robots | 4 |
| 2.8.6. | Tapping Out..... | 5 |
| 2.8.7. | Forfeit | 5 |
| 2.8.8. | Special Considerations for Multi-Bots | 5 |
| 2.9. | Power of Officials..... | 5 |

1. Introduction

In the spirit of fun, entertainment and safety, the Robot Fighting League has developed the following set of rules and guidelines for robot combat matches at RFL events. These rules are based on generally accepted event rules as recognized across the country. Since the technology of the sport of combat robotics changes with the speed of an arms race, these rules are subject to change at any time. Should a rule change be warranted, The RFL will endeavor to give the Combatants as much notice as possible or reasonable.

2. Tournament Formats

Tournaments in each weight class will be Double Elimination or Round Robin, the specific format is determined by the number of entrants. Double Elimination tournaments may be standard "Full" double elimination or modified, at the event organizers' option.

- 4 or 5: Round Robin
- 6 – 16: Modified Double Elimination
- 17 – 24 Super Modified with 4 finalists
- 25 or more: Super Modified with 8 finalists

2.1. *Round Robin*

Tournament rounds are conducted as a round-robin, in which each combatant faces every other combatant one time. The winner of a round robin tournament is determined by totaling the number of wins for each competitor. The competitor with the most wins is the overall winner, the next most wins 2nd place, etc. In the event of a tie for any finishing position the tie shall be decided based on the outcome of the match between the tied combatants, i.e. if "A" and "B" are tied for 1st place, the winner will be the winner of the "A" vs. "B" match held during the tournament.

2.2. *Full Double Elimination Format*

Tournament rounds are conducted in standard double elimination format: a combatant starts in the "winners tree" and moves to the "losers tree" after a loss. A combatant in the "loser's tree" is eliminated by a second loss. The tournament ends with the winner of the loser's tree facing the winner of the winner's tree. If the Loser's tree combatant wins, that combatant must face a rematch with the Winner's tree combatant, because two losses are required to eliminate a combatant.

2.3. *Modified Double Elimination Format*

Tournament rounds are conducted in modified double elimination format: a combatant starts in the "winners tree" and moves to the "losers tree" after a loss. A combatant in the "loser's tree" is eliminated by a second loss. The tournament ends with the winner of the loser's tree facing the winner of the winner's tree in a single-elimination match to determine first place.

2.4. *Super Modified Double Elimination Format*

Tournament rounds are conducted in super modified double elimination format: a combatant starts in the "winners tree" and moves to the "losers tree" after a loss. A combatant in the "loser's tree" is eliminated by a second loss. The double elimination tournament continues until all but the applicable number of finalists (4 or 8) remain, evenly divided between the winner and loser trees. The finals rounds are single elimination – a loss by any combatant eliminates that combatant.

2.5. Match Pairings

Robots will be paired on the tournament ladder randomly. [Describe tournament seeding here, if applicable – delete this text if random seeding is used.] After the initial pairings are established the tree will be revised if necessary to eliminate frequency conflicts.

2.5.1. Byes

Double elimination trees will be seeded with “Byes” as needed to make up an even power of two (8, 16, 32, etc.). Byes are distributed using the example method given below. [Optionally use this field to describe the mechanism used for distributing byes, or delete this text.]

2.5.1.1. Distributing Byes – Example Method

Events may choose to use the following algorithm for distributing byes. This method produces a balanced tree. This event does use this method.

Distribute byes across the initial bracket starting at the “outer edges” and working in. Byes are inserted as the 2nd bot in the match to which they apply. For example, in a DE bracket of 8, with 5 competitors and 3 byes, the byes are inserted as follows:

There are 8 positions. The first match is positions 1 and 2, the second 3 and 4, and so on. The first bye goes into position 2. The second Bye goes into position 8. The 3rd (and final) bye goes into position 4. Thus the 4 matches are “A” vs. Bye, “B” vs Bye, “C” vs “D”, and “E” vs Bye.

2.6. Match Frequency

A Combatant is allowed no less than 40 minutes (20 minutes for 150g, 1 lb and 3 lb classes) to prepare for the next match. This time is calculated from the time the Combatant leaves the post-match staging area. If the Combatant fails to return to the pre-match staging area when called after the allotted time. the Combatant may be forced to forfeit. It is recommended that any routine maintenance (ie: battery charging) should be capable of being performed well within this time period. In extreme cases the 40 minute time period may be lengthened at the discretion of the event organizers.

2.7. Match Duration

Matches shall be 2 minutes in the 150g, 1 lb, and 3 lb classes.
Matches shall be 3 minutes long in the 12 lb and higher classes.

2.8. Determining a match winner

A robot loses a match when one of the following occurs

- 1 The robot is knocked out or cannot show sufficient mobility as defined below in section 2.8.1.
- 2 The driver of the robot surrenders (“Taps Out” - see Section 2.8.6.)
- 3 A robot enters a Death Zone (if present). Once a robot is in the Death Zone, it must immediately shut down. There will be no countdown and the robot will be declared the loser by TKO.
- 4 Should both robots in a given match become incapacitated in the arena and neither robot has entered the **Death Zone**, the match will go to a judges’ decision.
- 5 Should both robots in a given match become incapacitated in the arena and only one of the robots has entered the **Death Zone**, the robot still on the arena floor, regardless of it’s condition, will be awarded the win by TKO.
- 6 A robot that is deemed unsafe by Tournament Officials after the match has begun will be disqualified and therefore declared the loser by TKO. The match will be

immediately halted and the opponent will be awarded a win. Should the disqualified robot manage to remedy the problem and has yet to compete in the loser's bracket, they will be allowed to return to combat as would any other robot who has one loss. This is subject to approval by the highest ranking Tournament Official on site at the time of the disqualification. This rule is designed solely around the safety of spectators, Combatants and tournament staff.

- 7 All other matches will be decided by judges' decision. Judges' decisions are final.

2.8.1. Knock-outs and Mobility

The referee will declare a knock-out when the robot does not show any controlled translational movement after the opponent has ceased attacking for **5** seconds and fails to show controlled translational movement on request by the Referee.

The robot will be issued a 10 second countdown. If the robot continues to be unable to show controlled translational movement and the opponent still does not attack, then at the end of the 10 second countdown the robot will be issued a loss by KO.

Any attack by the opponent, or controlled translational movement of the Robot will reset the time for this determination.

2.8.1.1. Controlled Translational Movement

Movement is "controlled" is the driver of the robot can move the robot across the arena floor by manipulating the remote control, or if an autonomous robot can move across the arena floor on its own. Orbiting a fixed location on the floor does not constitute "controlled translational movement". The referee shall decide if movement is "controlled". As with all official decisions, the referee's call is final.

2.8.2. Entering Death Zones (if present)

An arena may have one or more "Death Zones". A "Death Zone" is an area of the arena defined by the event organizer(s) from which no robot may return alive. Death Zones may include pits, the area behind an arena bumper or barrier, the area outside a "push out", or any other clearly defined part of the arena declared in advance by the organizer(s) to be such.

A combatant has entered a Death Zone, and is declared dead by the Referee, when one of the following conditions applies:

1. **One** combatant enters the Death Zone and any part of the combatant touches the floor in the Death Zone.
2. **Both** combatants enter the Death Zone: the first to contact the floor shall be declared dead, regardless of which combatant initiated the entry.

A combatant may push, drag, carry, or flip/launch an opponent to a death zone. Causing the opponent to enter a death zone as defined above within the allowed 15-second pin or lift time is sufficient for a win: the aggressor does not need to release the opponent for "entry" into the death zone to be complete.

2.8.2.1. Shut Down

Any robot entering the **Death Zone** must immediately and completely shut down. This is a safety matter being employed to protect the spectators as well as protecting the arena safety wall from excessive damage. Shut down shall at a minimum constitute release of all controls, switching off all weapons and if the situation warrants, turning off the transmitter to engage the fail safe (See 1.5).

2.8.2.2. Contact with the Outer Arena Wall

During the course of combat a robot may be brought into contact with the outer arena wall. Intermittent contact is allowed if, in the opinion of the Referee, the integrity of the outer wall is not threatened. If the contact continues for an extended period or if the Referee believes the integrity of the outer wall is threatened the Referee will halt the match so the robots can be repositioned so as to no longer threaten the arena integrity. Restart will be via the "Neutral Corner" procedure as described below in section 2.8.5.2.

2.8.3. Pinning & Lifting

Robots may not win by pinning or lifting their opponents unless the pinning or lifting results in the opponent being forced into a **Death Zone (see 2.8.1, above)**. Officials will allow pinning and / or lifting for a maximum of fifteen 15 seconds (10 seconds for 1 lb and under) per pin / lift then instruct the attacker to release the pinned/lifted opponent.

An attacker that does not stop a pin or lift immediately when requested by the Official shall be deemed the loser and move to the loser's bracket or out of the tournament, unless the two robots are stuck together. (See 2.8.4)

2.8.3.1. Cornering

Keeping an opponent trapped in a corner shall be considered a pin, even if the attacker is not in continuous contact with the cornered opponent.

2.8.3.2. Releasing a Pinned Opponent

If an opponent is held pinned (or cornered), the attacker must move far enough away after releasing the opponent that the opponent has an opportunity to escape for the pin/corner to be considered released and the pin timer stopped. "Far enough away" will vary by arena and event, since arenas are of different sizes.

2.8.4. Stranding / High Centering

A robot may be intentionally stranded by its opponent on an arena feature (floor seam, arena bumper or wall, etc.) Stranded robots have 15 seconds (10 seconds for 1 lb and under) to free themselves, after which time they shall be given a 10 second countdown and issued a loss by TKO.

2.8.5. Stuck or Entangled Robots

Matches will be paused to separate robots in the event that they become stuck together in the arena.

2.8.5.1. Arena Stranding Hazards

It may be possible for a robot to get stuck on or under some part of the arena **through its own action**. Each combatant will be granted **one free release** from an arena feature per match. The first time a combatant becomes stuck through its own actions the Referee will stop the match and the arena crew will free the stuck combatant...

If the combatant becomes stuck again in the same match, no intervention will take place.

If the combatant is stuck by the direct action of its opponent, no intervention will take place.

2.8.5.2. Neutral Corner Restart

Before restarting a match that has been paused to release stuck robots, the robots will be driven to neutral corners of the arena when directed to do so by a Tournament Official. If a robot is unable to move (or cannot move well enough to be easily driven to the indicated corner) it will be left in position.

2.8.6. Tapping Out

Should a Combatant determine their robot is damaged to the point they wish to end the match, they will notify the Tournament Official of their intent. At that point the Official will ask the Combatant to confirm he/she wishes to end the match. If the Combatant says "Yes", the Official shall instruct the opponent to cease attacking and back away from the Combatant's robot. The Combatant tapping out will be deemed the loser and a win will be awarded to the attacker by TKO.

2.8.6.1. "Tap Out" Button

The arena may be outfitted with "Tap Out" buttons at each driver's position. At events where such buttons are provided a combatant may end the match by pressing the "Tap Out" button. The Combatant tapping out will be deemed the loser and a win will be awarded to the attacker by TKO.

2.8.7. Forfeit

Should a fully registered Combatant forfeit or be disqualified prior to the beginning of a match, their opponent shall be awarded a win.

2.8.8. Special Considerations for Multi-Bots

Robots consisting of physically separate, independently controllable segments are referred to as *multi-bots*. As long as at least one of a multi-bot's segments is still able to show movement when requested to do so, that combatant is still considered "alive". To score a knock-out against a multi-bot, [all] of the multi-bot's segments must be incapacitated or eliminated.

2.9. Power of Officials

Combatants must follow the instructions of Tournament Officials at all times. This is necessary to maintain the safety of everyone at the tournament. Circumstances beyond the scope of these rules and guidelines shall be up to the Officials' decisions. All Officials' decisions are final.

3. Use of this Document

If you plan on using the RFL Standard Match Rules for your event you are welcome to. Our only requirement is that it not be changed other than in the extensible areas, and that it be referred to as the RFL Standard Match Rules.