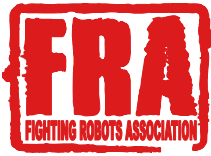


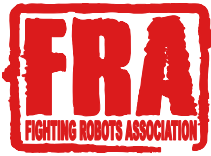
## **Competition Regulations**

2020 Edition



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## Copyright

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## Competition Format

### ***Knockout***

Many robots compete in a knockout tournament with the end result determining the overall champion.

A knockout competition normally takes the form of a double-elimination tournament. Early rounds may consist of qualifiers where melees (fights of three or more robots) are scored 4 points for a knockout, 3 points for a judge's decision, 2 points for coming second and 1 point for entering the arena. The top ranking robots then continue through to the main competition. In the event that the main competition is oversubscribed the bottom ranking robots will compete in one or more melees to determine who goes through.

Reserve robots may replace places in early rounds where a competitor is unable to compete. Roboteers who fail to make it to the arena in time may opt to give up their place to a reserve or score zero points for that fight. However, during the main competition they shall be deemed to have been knocked out.

Roboteers should be given a reasonable time period to repair and recharge batteries with at least 15 minutes notice that their fight is about to start.

### ***Annihilator***

Six robots compete in a contest with the end result being only one machine left in the competition.

An annihilator contest would normally consist of five rounds, a fifth round being a final to decide a winning machine. It is possible to reduce the number of rounds to two

Rounds last until one machine is knocked out either through immobilisation or by being thrown out of the arena. At this point a siren or similar will sound to end the fight. The sound should be clearly audible to both roboteers and the audience.

Roboteers should be given a reasonable time period to repair and recharge batteries. This needs to be stated and planned before the beginning of the competition.

If a surviving machine is not able to re-enter the next round, the last eliminated robot from the previous round is required to re-enter this new round if in a serviceable condition.

The object of this competition is to remain in a serviceable condition at all times, wanton destruction or severe damage of a robot that is left in a competition while another machine is being counted out may either be disqualified or severely marked down on style should there need to be a judge's decision.

### ***Tag Team***

Robots team up to work together to win fights. Typically two or more teams of robots compete in fights where two robots from each team are drawn against each other. One robot from each team will fight while the other stays to the side until "Tagged" or the team robot is immobilised.

Robots not tagged into the fight lose points and points may be awarded for tactical moves such as tagging in a team robot at the appropriate time.

Only robots tagged into the fight may attack one another, although it is not unheard of for all robots to be attacking each other at the same time should an opponent attack while not tagged into the fight. Judges may opt to disqualify a team for this behaviour.

### ***Gladiator***

Many robots compete in a battle to the death.

A gladiator contest consists of one bout with no time limit. Robots are eliminated when declared immobile until only one remains.

Immobile robots shall not interfere with the ongoing battle and remain in the arena as obstacles.

## **Competition Rules**

### ***Membership***

Roboteers shall be current members of the Fighting Robots Association or affiliated association in order to be eligible to enter competition.

### ***Build Rules***

Robots shall be built to current FRA build rules and will be subject to a technical check prior to competing. Although opportunity will be given to correct issues found during the technical check, these should be corrected and passed prior to competing. Failure to adhere to the build rules may result in disqualification.

### ***Weight***

Robots shall be within weight for the class entered. Weight includes all consumables and any part of the robot that remains inside of the arena such as gas bottles, removable link(s), and safety teathers. Locking bars, transmitters, and tools required to activate the robot that are removed from the arena are not included. No allowance is given for any margin of error. Should any modifications be made between rounds, robots should be weighed again before entering the arena. Spot checks may also be called at any time by the judges.

### ***Drivers***

Any one driver(s) may operate one competing robot or clusterbot in the competition weightclass. It is acceptable for any one robot or clusterbot to be operated by more than one driver providing they do not operate another robot in the competition weightclass.

### ***Fight Length***

The fight length will be fixed at the start of the competition and remain constant throughout. Some competition formats allow for longer fights such as the Gladiator.

## ***Judging***

For national or international competitions a judging panel should consist of three judges. These judges should not be competitors or event organisers in a sanctioned competition. A system should be provided for the judges to score accurate immobile robot countdowns and judging the fight length. The judging panel will be consulted on all aspects of the competition including but not limited to competition format, scoring, disqualification, outcome and any other matters that involve the competition.

### ***The Judges Decision is Final***

The judges decision is final and arguing with the judges may result in disqualification from the competition.

## ***Decisions***

Judges should not confer their result. Each judge will determine their winner separately (see Scoring Criteria) with the result passed to the chief judge or announcer. In the event of melee fights with more than two robots competing, the chief judge will determine the result in the event of a split decision.

## ***Referees***

During fights the referees are responsible for communicating between the judges and the roboters. Normally one referee is allocated to each robot in the arena. Referees will observe the robot for immobilisation and unsportsman like behaviour such as pinning.

## **Rules of Engagement**

### ***Fight Start***

Robots begin the fight at opposite ends of the arena. Normally an arena will have clearly marked start positions away from arena hazards. The start of the fight begins after a countdown. During the countdown robots may not activate weapons or move towards the opponent. Any such activation may trigger a false start or result in the opponent being disqualified.

### ***Arena Hazards***

The arena may incorporate hazards such as “The Pit”, “Arena Flipper” and others. These hazards shall be clearly marked and their activation notified by audio and visual prompts including a countdown or siren prior to activation and comprehensively explained during a pre-competition briefing. Arena hazards are inactive for a minimum of 30 seconds after which they may be activated by robots in the arena through the use of a trigger, timers, or random sequencing. External operators may not interfere in a fight. Activation of moving arena hazards should be used in a consistent way throughout a competition.

### ***House Robots***

House robots should not interfere with a fight unless a robot enters the house robot zone or until at least one of the competitors is deemed out of the competition by the appropriate countdown times incurred. Where house robots are in use, zones should be clearly marked and their use comprehensively explained during a pre-competition briefing.

### ***Immobilisation***

Any robot that is unable to move or demonstrate control may be counted out. This may be due to mechanical failure, entanglement with the arena or arena hazards, such as the pit. Should a robot become immobile the Referee will call out “Movement”. The referee will count down from 10 to 1 during which time the robot must move outside its own circumference or it will be eliminated. Should the robot be eliminated the Referee will call out “Eliminated” and the robot shall cease all movement. A robot may only be



counted out where it is not engaged with another active robot and is unable to demonstrate that it can move outside its own turning circle.

### ***Pinning***

It is not permitted to pin an opponent for more than 10 seconds, for example, where one robot pins its opponent to the arena side or preventing the opponent from self-righting. Where a robot is pinning an opponent the Referee will call out "Release". The robot should back away and allow the opponent fair opportunity to recover. It is bad sportsmanship to continually pin an opponent intentionally; however it is understood that some weapon designs may necessitate this. Robots that utilise a crushing or gripping design to hold their opponent should release within 30 seconds. In the event that robots become entangled the fight may be stopped and the robots separated. During melees both of the entangled robots may be deemed immobile.

### ***Clusterbots***

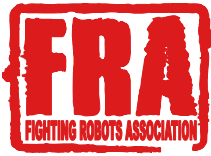
Robots that have two or more independent fighting segments, the robot is deemed eliminated once 67% by weight of the segments are eliminated. It is important that the Judges and Referees know the weights of each segment prior to the fight starting. Segments may be equal weights or different weights providing the total weight does not exceed that of the weight class.

### ***Out Of The Arena***

When a robot is thrown out of the arena or into the pit that robot will be deemed eliminated when they hit the floor or bottom of the pit. Should a robot return into the arena without hitting the floor (for example if they are thrown off a wall or fence) they shall not be deemed eliminated. In the event that more than one robot goes out at the same time, the order shall be determined by the first robot to have hit the floor or bottom of the pit. In the situation that this is not easily determined, the judges will decide.

### ***Tapping out***

Roboteers tapping out of a fight do so at their own risk and forfeit the fight. When tapping out the driver should state to the referee that they are "Tapping Out" and cease all movement.



## **Cease**

At the end of the fight cease is called and robots shall stop fighting. Damage incurred after cease will not be counted and may be viewed as bad sportsmanship.

## **Stoppages**

Where a fight must be stopped for safety or technical reasons the judges may restart the fight with the remaining time on the clock if there is more than 30 seconds remaining and the fight has been stopped for less than 5 minutes. Alternatively the judges may choose to judge the fight up until the point it was stopped.

## **Sportsmanship**

Judges may eliminate or disqualify a robot for bad sportsmanship or poor behaviour both in and out of the arena. Refer to the code of conduct.

## **Scoring Criteria**

Judges should score the effectiveness of a driver and robot based on the criterias of Damage, Control, and Aggression. There is no one method to scoring robot fights due to the unique and varied designs of the robots that compete. Fights may be scored on a hit by hit basis or decided upon review. Each judge may employ their own method, drawing upon their experience and viewpoint. The winner is decided by majority vote from the judging panel.

### ***Damage***

It is important that where a fight is judged on damage the judges need to be aware of any existing damage to a robot at the start of a fight. Superficial, cosmetic damage will not be taken into account. Serious structural or mechanical damage will count against a robot. If a robot ceases to function during a fight due to loss of the removable link or any other internal component then it should be counted as damage.

### ***Control***

Where a driver demonstrates a good level of precision in their driving, for instance an attack is started on an opponent who tries to veer away but the attack is taken to full contact, or conversely, an attack by a robot is attempted but due to good avoidance by the opponent the attack fails.

### ***Aggression***

Where a robot continually attacks their opponent, particularly where the attacker appears to be inferior technically to its opposite, for example a lightly armoured robot attacking a powerful spinning disc equipped robot.