SPARC Tournament Procedures v1.1

Modified for House of Robotic Destruction v1.1.1

If an event chooses to use non-standard procedures they will make the alterations clear and publicly available prior to the event.

Modification notes
~~Strike out~~ = This rule does not ally to ORC events
Red Text = This rule has been changed or added for ORC events **[Section Title] (#.#.#) =** Reversion number of changes made to this section

Match Frequency: (1.1.1)

Robots weighing between 150g and 6lb will be given a minimum of 20 minutes between matches. Robots weighing greater than 6lb will be given a minimum of 30 minutes between matches.

If a robot will not be ready in time for its next match the drive may request a postponement.

If allowed time and allowed postponement have expired and a robot is not ready that robot will be forced to forfeit the match.

If allowed time and allowed postponement(s) have expired and neither robot is ready then the first robot to demonstrate controlled movement in the arena will be declared the winner.

Postponements: (1.1.1)

If a robot will not be ready in time for its next match the drive may request a postponement.

A postponement will give a robot up to 20 minutes of extra time to prepare for its match.

Each robot will be allowed one postponement per day.

If the robot does not use all of its postponement time the remaining time is lost and **cannot** used for a latter match.

If a driver has two or more robots using a postponement for one robot **does not** guarantee his/her other robot(s) will not be required to complete during the allotted postponement time.

Match Duration:

The standard match duration for 150g-6lb robots is 3 minutes. The standard match duration for robots weighing more than 6lbs is 3 minutes. The standard match duration for a rumble in any weight class is 5 minutes.

~~(Option) The match duration for 150g-6lb robots is 2 minutes.~~

Weight Verification: (1.1.1)

Prior to a match the referee, safety officer, judge, or drive(s) may request a reweight of any robot involved in that match. If the robot is found to exceed the allowed weight then the driver will be given 5 minutes to make it meet the class weight requirement. If the drive needs more than 5 minutes he/she may use a postponement if available. If the robot cannot be made to meet the class weight requirement in the allowed time it will be forced forfeit the match.

(Optional Camera Rule) If it is approved by the event officials the addition of a small camera and protective shroud may be added to a robot even if such a system would exceed the normal weight limit. Any mount and shroud must be designed to provide protection and support to the camera only. This mount should be designed for easy removal for separate weighing of the bot if applicable.

SPARC Match Rules v1.1

Modified for House of Robotic Destruction v1.1.2

If an event chooses to use non-standard rules they will make the alterations clear and publicly available prior to the event.

Modification notes
~~**Strike out**~~ **=** This rule does not ally to ORC events
Red Text = This rule has been changed or added for ORC events **[Section Title] (#.#.#) =** Reversion number of changes made to this section

Bot Load In and Activation: (1.1.1)

In arenas where robot power up is possible with the driver not standing on the combat area preference will be given to that method.

> The combat area is defined as the region of the arena where active combat occurs. This would exclude gutters between whatever internal barricade exists in the arena and the arena walls.

Priority for load in is as follows:

1. Least dangerous bot being activated by someone inside the combat area
2. Most dangerous bot being activated by someone inside the combat area
3. Least dangerous bot being activated by someone outside the combat area
4. Most dangerous bot being activated by someone outside the combat area

The process for activating a robot is as follows:

1. Robot is placed in a stable position on the combat area with the drive wheels oriented such that when they come in contact with the combat area the direction of travel will be away from other robots, persons, and entry doors. If the robot has a weapon that is aimable it will be aimed at the wall furthest from the arena entry door.
2. Weapon covers are removed.
3. Transmitter is turned on.
4. Main power is turned on.
5. If separate, weapon power is turned on. This applies to both a separate power loop and non-electrical power systems. (ie. pneumatics)
6. Weapon locks are removed.
7. If the robot is being activated by a person inside the combat area, they then exit the arena, otherwise the robot is driven to the starting square from their power on location. Bracket manager will specify starting square for each robot.
8. No movement or functional testing is permitted while anyone is on the combat area.

Once both robots are activated and in their starting squares the arena access point will be closed and a maximum of 20 seconds will be allowed for a brief weapon/drive system test if the drivers so desire. No weapon testing of any sort will be allowed prior to the arena door being closed. In the event that the arena is equipped with multiple access doors and each robot is

loaded through a separate door the door will be opened to allow load in then shut once the operator is out of the arena.

After this, the referee will ask both drivers if they are ready and the fight will begin.

ORC octagonal arena is equipped with two "ready buttons". The MC will ask if the red square robot is ready, the drive will respond by pressing the button. Drives are encouraged to vocally declare their readiness with a battle cry or taunt of their choosing. HORD is a family friendly event all battle cries and taunts should be family friendly.

Post Fight Activities:

At the end of the fight both robots are to cease movement and if applicable, allow their weapon systems to de-energize. Once the weapon systems have been de-energized the judges may request that one or both robots demonstrate that either their drive or weapon system is still functional.

Demonstration of drive system functionality will be done by the robot returning to its starting location.

Demonstration of weapon system functionality will be done by the robot returning to its starting location and briefly applying power to the weapon system to show that it is still operational. The robot will not spin to full speed during this demonstration.

Once this is completed the robot deactivation and load out procedure can begin.

Bot Deactivation and Load Out:

In arenas where robot power down is possible with the driver not standing on the combat area preference will be given to that method. In the event of an unexpected situation the order in which robots are powered down may be altered by the referee.

The combat area is defined as the region of the arena where active combat occurs. This would exclude gutters between whatever internal barricade exists in the arena and the arena walls.

Priority for load out is as follows:

- Most dangerous bot being deactivated by someone outside the combat area
  - Least dangerous bot being deactivated down by someone outside the combat area
  - Most dangerous bot being deactivated down by someone inside the combat area
- Least dangerous bot being deactivated down by someone inside the combat area

The process for deactivating a robot is as follows:

- Weapon system is disabled. This includes any applicable weapon locks, power cut-off and venting. The exact order of this procedure will be left to the discretion of the builder as differing designs may necessitate different safe shutdown procedures.
- Main power is turned off.
- Transmitter is turned off.
- Weapon covers are reinstalled.
- If the robot is able to be removed from the arena without a cart/assistance it may be removed at this time, otherwise robots will be removed from the arena once all robots have had their weapon locks installed and are powered down.

Emergency Deactivation Procedure:

In the event of an emergency (for example: one or more robots on fire) the standard procedure does not apply. The following attempts to address the vast majority of possible situations that are likely to occur:

One robot is burning and the other is mobile

- The mobile robot is to move to the wall furthest from the arena entry door and align its drive wheels parallel with the wall. If the robot has an active weapon it is to immediately begin dissipating stored energy (spinning down, release for spring actuated weapons, etc) and if possible, bring it next to or into contact with the wall it is aimed at.
- Once the working robot is in position the arena marshall will enter the arena and extinguish the fire, then if possible, remove the robot from the arena.
- The operator of the non-burning robot may then proceed with normal load out procedures.

One robot is burning and the other is immobile

- If the immobile robot has an active weapon it is to immediately begin dissipating stored energy. (spinning down, release for spring actuated weapons, etc) If the robot retains some degree of mobility but cannot move in a reliable manner it will attempt to angle itself such that any weapons that are aimable are aimed at the wall furthest from the arena entry door.
- Once the arena is able to be entered safely the arena marshall will enter the arena and extinguish the fire, then if possible, remove the robot from the arena.
- The operator of the non-burning robot may then proceed with normal load out procedures.

Both robots are burning

- Both robots will, if applicable, immediately attempt to dissipate any stored energy systems and will attempt no other actions.
- Once the arena is able to be entered safely the arena marshall will enter the arena and extinguish the fire, then if possible, remove both robots from the arena.

One or more robots are burning during a rumble

- All mobile, non-burning robots will move to the closest arena wall that is not used to access the arena and begin dissipating stored energy.
- All immobile robots will immediately begin dissipating stored energy and will perform no other actions unless they are able to rotate such that they are able to angle any aimable weapon systems at the wall furthest from the arena entry door.
- Once the arena is able to be entered safely the arena marshall will enter the arena and extinguish the fire, then if possible, remove the robot from the arena.
- If there is time left, the match will be allowed to resume. One or more robots are acting erratically/stuck on
    - The operator(s) of the robot(s) will turn off their transmitters to attempt to activate the robots failsafe.
        - If this works then normal load out procedures will resume.
    - In the event that the robot(s) are still acting erratically the robots will be allowed to drain their batteries until they are safe to approach.
    - Should a robot in the arena still be fully functional, no weapon system be active on the malfunctioning robot and all involved operators agree to it the operator of the still working robot may attempt to pin and prop up the malfunctioning robot such that its wheels are no longer in contact with the ground. The operator of the

malfunctioning robot will then be allowed to power off their robot. Once powered off they will exit the arena and the robot that was pinning the malfunctioning robot will be allowed to go through normal load out procedures. The malfunctioning robot will then complete its load out procedures.

Match Formats:

Round Robin (Standard format for classes with 5 or fewer robots entered)

- Each robot faces each other robot in the weight class a single time. The robot with the greatest number of wins is declared the winner. In the event of a tie, the winner of the match between the two robots is declared the winner. Should more than two bots tie for the win the winner will be determined with a judged rumble.
- If desired, a double round robin format can be used where each robot will face each other robot twice. The same criteria is used for determining a winner. Should the results necessitate it, a tie-breaker match may be run to determine which robot places higher.

Single Elimination

- This format uses a standard single elimination bracket.

Double Elimination (Standard format for classes with 6 or more robots entered)

- In a double elimination bracket all robots start in the winners bracket. The losing robot in a winners bracket match will move to the losers bracket. The losing robot in a losers bracket match is eliminated from the tournament.
- In this format, the robot that "wins" the losers bracket will need to defeat the robot that "wins" the winners bracket twice to win the overall event.

Modified Double Elimination

- The format is the same as a double elimination bracket however the overall final is treated as single elimination, meaning that if the robot that "wins" the losers bracket will only have to defeat the robot that "wins" the winners bracket a single time to win the overall event.

Other

- Any match formats used not described above will be the responsibility of the host event to clearly describe

Round Robin and Modified Double Elimination are the standard match formats for ORC events

Entanglement: (1.1.1)

If two opposing robots stuck together in such a way that they cannot separate under their own power after 10 seconds the judge may request a "**de-entanglement**"

At such time the match timer will be paused, both drivers will de-energize their weapons and the ORC referee or safety officer will free the robots. The robots will be placed a few inches from their original position in the arena in the general orientation they were at the time of the entanglement. If the ORC referee or safety officer feels that the robots cannot be separated safety he/she may require that one or both drivers deactivate their robot's main power. Once this has been complete and the arena secured the match will resume.

If a robot is deemed to be causing multiple entanglements per match that robot may be declared in violation of Robot Construction Specifications section 14.1.5 and be required to forfeit the match.

Sticking/Un-sticking: (1.1.1)

If a robot, for any reason, is unable to move because a portion of the robot is pinched, held or connected to the arena and cannot free itself using its normal articulation that robot shall be consider "Stuck". **Once per match** a drive may request an "**un-stick**". Note; if a member of a multi bot receives an un-stick no other member of the multi bot may request an un-stick.

Sticking may include, but not necessarily limited to;

Wedged under the arena inner wall

Wedged or hooked on a floor seam

At such time the match timer will be paused, both drivers will de-energize their weapons and the ORC referee or safety officer will free the robot. The robot will be placed a few inches from its original position in the arena in the general orientation it were at the time of the sticking. If the ORC referee or safety officer feels that the robots cannot be freed safety he/she may require that one or both drivers deactivate their robot's main power. Once this has been complete and the arena secured the match will resume.

Stacking: (1.1.1)

If a robot, for any reason, is unable to move due to it being oriented in such a way that it's means of translational movement is not in contact with the floor the robot shall be consider
"stacked". **A robot that is stacked may not request an un-stick**. If a stacked robot cannot show controlled translation movement a knock out countdown will begin.

Stacking may include, but not necessarily limited to;

A robot that is leaning against an arena wall, but not held in place by the arena

A robot that is high centered on piece of debris from either robot that does not constitute an entanglement device per Robot Construction Specifications section 14.1.5

Pits/Push-outs: (1.1.2)

If the arena is equipped with a Death Zone/Pit/Push-out or similar hazard a robot entering this area in a one on one match will result in the end of the match and a loss for the robot that first entered the area. In a rumble any robots entering the area will be eliminated from the rumble and are to cease the operation of weapon systems immediately.

The ORC octagonal arena is equipped with one 15"x 14" pit with a trap door. Pit opening rules are determined on a per event basis, see event description for pit opening rules for the event you are attending.

If both robots enter the pit simultaneously the judge will determine the winner based on which robot was in control at the time of the pitting. If neither robot was in control then the judge shall determine the winner based on the robots performance up to that point.

For multi bots, when a multi bit segment enters the pit only that portion of the multi bot is knocked out.

~~(Option) The death zone may be used as an immobilization zone instead, allowing the robot a chance to attempt to escape while it is being counted out. If the robot is able to escape before being counted out the match will continue as normal.~~

~~In the event that both robots enter the death zone simultaneously they will be returned to the combat area and the match will resume. A robot that places its opponent in the death zone must be able to do so without also becoming stuck itself. If it is not able to separate from the other robot this will be treated as simultaneous entry.~~

Pinning/Lifting:

Any robot pinning or lifting their opponent may only continue to pin or lift them for 10 seconds at a time. After 10 seconds has elapsed the robot in control must release the opposing robot. If the robot in control is not able to release the opposing robot then the match will be halted and the robots will be separated.

> “Release” is defined as complete physical separation such that both robots are able to freely move away from their current location.
> Refusal to comply with the referee’s request to release the opponent when the robots are not stuck together will result in forfeit of the match.

Tapping Out:

At any time during a match the robot operator may choose to tap out. Once an operator has tapped out combat will cease and the opposing robot will be declared the winner.

Tapping out is done either by informing the referee that you are tapping out verbally or by using a designated tap out button or similar object should one be available.

Knock-outs: (1.1.1)

When a robot has ceased moving in a controlled manner but has not tapped out the referee will begin a 10 second countdown. If the robot is unable to demonstrate controlled translational movement before the countdown ends it will be declared the loser by KO. If during this time the robot is able to show controlled translational movement or if the opposing robot attacks it the countdown will cease. This means that a "dead" robot will not be counted out should the opposing robot continue to attack and the match will not end until the match timer expires or one robot taps out.

A bot with one side of its drivetrain disabled will not be counted out if it can demonstrate controlled translational movement. Controlled translational movement is defined as being able to traverse in a manner such that the net movements of the robot are in a linear direction.

In the case of multi-bots, the countdown will begin when greater than 75% of the mass of the multi-bot is unable to move. For multi-bots with an even number of robots (2, 4, etc…) and equal weights for each portion the team will identify which are considered to be the heaviest.

In the event of a simultaneous knock-out a judge's decision will be made based on the robots performance up to the point of simultaneous knock-out.

~~In the event of a simultaneous knock-out both robots will be placed in their standard orientation on the combat area by the arena marshal/referee and allowed an attempt to demonstrate controlled movement. If both robots are able to function the match will resume. If one robot is able to function that robot will be declared the winner. If neither robot is able to function the match will go to the judges.~~

~~(Option) Should the battery of a robot become exposed the match will be halted and the robot with the exposed battery will lose by TKO.~~