

SPARC Tournament Procedures v1.0

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

Weight Classes:

~~0.33lb / 150g - Fairyweight~~
~~1lb / 454g - Antweight~~
~~2.2lb / 1kg - Kilobot~~
~~3lb / 1.36kg - Beetleweight~~
~~6lb / 2.72kg - Mantisweight~~
~~12lb / 5.44kg - Hobbyweight~~
~~15lb / 6.8kg - Bantamweight~~
~~30lb / 13.61kg - Featherweight~~
~~60lb / 27.22kg - Lightweight~~
~~120lb / 54.43kg - Middleweight~~
~~220lb / 99.79kg - Heavyweight~~

Walker, shuffler and novel non-wheeled weight bonuses:

Walkers may weigh up to 100% more than their standard class weight limit.

Walkers are those robots in which multiple linear or limited-travel rotary actuators are intermittently driven to produce linear travel of the robot. Actuation may be through electric, pneumatic, or hydraulic means. Walkers must have no parts normally in contact with the ground undergoing continuous rotation, and must require some change in timing or sequencing of the driving mechanisms in order to reverse direction. Walkers will typically have control systems significantly more complex than those found on shufflers or rollers, involving multiple actuators, servos, or valves running through a specific sequence to produce motion.

Shufflers and novel non-wheeled robots may weigh up to 50% more than their standard class weight limit. (~~Option: Shufflers and novel non-wheeled robots receive no weight bonus~~)

If a robot is supported and/or propelled by parts that do not normally undergo continuous unrestrained rotation around a horizontal axis, but uses a system of mechanical devices such as cams or crankshafts to generate reciprocating motion of those parts from one or more continuously rotating drive shafts, it will be considered a shuffler. The defining feature of a shuffler (versus a walker) will be the ability to generate continual forward motion of the robot from continual rotation of its drive motors. Shufflers typically have electrical control systems indistinguishable from those on wheeled robots.

Any other form of locomotion that is not contained within wheeled, walking, or shuffling is considered a novel non-wheeled form of locomotion. If you are intending on building a robot that may fall under this classification contact the event(s) that you plan on attending with the robot to confirm what they will classify the drive system as and what, if any weight bonus will be allowed.

The arena the event takes place in may put additional limitations on the maximum weight of any robot independent of the locomotion system.

Weight Verification:

A robot may be re-weighed at any time during a tournament at the request of an event official or judge. The time required to verify that the robot is still within the legal weight limit will not be counted against the robots guaranteed time between matches. In the event that the robot in question is less than 5% over the weight limit they will need to be made underweight prior to their next match. If the robot is in excess of 5% above the weight limit they will forfeit their prior match and will need to be made underweight prior to their next match. If repeated infractions occur in during the same event the robot will be disqualified from the event. If a robot has been modified since its last match the team will be responsible for ensuring that any repairs or modifications done stay within the weight limit. In the event that an event official calls for a re-weigh immediately following a match (prior to either robot returning to the pit area or having any work done to them) both robots will be weighed to confirm that they are within the weight limit. If one of the two robots is overweight it will immediately forfeit the match. If both robots are found to be overweight the original match result will stand and both robots will be required to be brought below the weight limit prior to their next 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.

Unsportsmanlike Conduct:

Unsportsmanlike Conduct includes but is not limited to: Post fight contact, sabotage, distraction of opposing robot operators, blatant early movement, etc.

For the first incident of unintentional unsportsmanlike conduct the person responsible will receive a warning. These warnings will carry over between events and will expire 25 months after the date of the incident.

For the second incident of unintentional unsportsmanlike conduct the person responsible will automatically forfeit the match.

For any instance of clearly intentional (as ruled by the judges or event officials) unsportsmanlike conduct, the driver of the robot will be disqualified for the remainder of the event. This means that if they are driving robots in the tournament they will need to find driver substitutes or those robots will be unable to continue to compete.

In the event that the unsportsmanlike conduct occurs during the finals of a double elimination tournament that is structured such that if the robot in the losers bracket wins the two robots will fight again, the driver initiating the contact will forfeit not only the current match, but the match that potentially would follow.