

Tournament Judging Guidelines

Version 3.1
Revised August 27, 2004

1. Tournament Judges

A panel of judges will determine the winner of matches in which time expires before one combatant is defeated as defined in the Tournament Rules and Procedures. The number of judges on the panel shall be an odd number to eliminate the possibility of ties.

Judges' decisions are **final**.

1.1. Qualifications

Judges must be completely familiar with the Official Rules governing the tournament.

Judges must be familiar with the scoring system and Judging Guidelines as defined here.

Judges must be reasonably conversant with combat robot design and construction. A judge should have built and competed with at least one robot. Exceptions may be made for highly qualified individuals.

1.1.1. Responsibilities

Each judge shall officiate in a given robotic combat Tournament with complete impartiality and fairness, respecting and abiding by the rules that govern that tournament, in the true spirit of sportsmanship.

Each judge is responsible for keeping track of the Combatants during the course of the match. Many Combatants look similar, it is the responsibility of each judge to keep them straight and award points correctly.

Each judge is expected to take careful note of existing damage when Combatants enter the arena. Existing damage must not be counted against a Combatant in the event of a judges' decision.

Judges must watch the entire match and award points accordingly. Judges are allowed (and encouraged) to take notes during a match to assist in scoring.

1.1.2. Referee / Judge Foreman

One member of the judge's panel will be designated the Judge Foreman. The Judge Foreman will ensure that all other judges are conforming to the guidelines as set forth herein. The Judge Foreman may participate in scoring judges' decisions or simply act as the Referee, depending on the number of judges available.

The Judge Foreman will ensure that all Combatants conform to the tournament rules. Warnings and instructions from the Judge Foreman will be issued to the Combatants verbally during the matches. Should a Combatant fail to comply, the Judge Foreman will stop the match and the violating Combatant shall be deemed the loser.

The Judge Foreman will determine the point at which a knockout countdown is to begin based on the strict interpretation of the rules. When a 10 second countdown is warranted by the Judge Foreman, the non-responsive Combatant will be notified and the countdown will begin. The arena announcer will start the countdown at 10 and count down to 0. If the non-responsive robot has not displayed sufficient translational movement as described in the rules, the Combatant will be declared the loser.

1.1.3. Conduct

Judges will clearly identify themselves as such.

Judges will not consult with each other or the audience while watching or scoring a match.

2. Judges' Decisions: Scoring

When a match does not end in the elimination of one of the Combatants as defined by the Tournament Rules and Procedures the winner shall be determined by a Judges' Decision. In a Judges' Decision the points awarded to the Combatants by the panel of judges are totaled and the winner with the majority of points is declared the winner.

2.1. Point Scoring System

Points are awarded in 2 categories:

- Aggression – 5 points
- Damage – 6 points

All points must be awarded - each judge will determine how many points to award each Combatant in each category, according to the Judging Guidelines (see below). The maximum possible score a Combatant receives is 11 * (number of judges). Thus, a single judge will award a total of 11 points, and a 3 judge panel will award a total of 33 points.

2.2. Judging Guidelines¹

2.2.1. Scoring Aggression

Aggression scoring will be based on the relative amount of time each robot spends attacking the other.

Attacks do not have to be successful to count for aggression points, but a distinction will be made between chasing a fleeing opponent and randomly crashing around the arena.

Points will not be awarded for aggression if a robot is completely uncontrollable or unable to do more than turn in place, even if it is trying to attack.

Sitting still and waiting for your opponent to drive into your weapon does not count for aggression points, even if it is an amazingly destructive weapon.

¹ These Judging Guidelines are derived from the Northeast Robotics Club (NERC) Judging Guidelines authored by Andrew Lindsey and the BattleBots™ Judging Guidelines, authored by Rob Farrow.

Awarding Aggression Points

- 5-0: a 5-0 score shall be awarded only when one of the robots never attempts to attack the other, and the other consistently attacks.
- 4-1: a score of 4-1 shall be awarded in the case of significant dominance of attacks by one robot, with the other only attempting to attack a few times during the match.
- 3-2: a 3-2 score shall be awarded when
 - Both robots consistently attack the other.
 - Both robots only attack the other for part of the match.
 - Both robots spend most of the match avoiding each other. In this case it will be up to the judge's discretion to decide which robot made more attempts to make attack the other.
 - A Combatant who attacks a full-body spinner (e.g. intentionally drives within the perimeter of the spinning weapon) is automatically considered the aggressor and awarded a 3-2 score in the case where either robots consistently attack, or both robots consistently avoid each other.

Note: a Combatant is considered a "full body spinner" if the robot cannot be attacked without moving within the perimeter of the spinning weapon.

2.2.2. Scoring Damage

Judges should be knowledgeable about how different materials are damaged. Some materials such as Titanium will send off bright sparks when hit but are still very strong and may be largely undamaged. Other materials such as Aluminum will not send off bright sparks when hit. Judges should not be influenced by things like sparks, but rather how deep or incapacitating a "wound" is.

Judges should be knowledgeable about the different materials used in Bot construction and how damage to these materials can reduce a Bot's functionality. Judges should not to be unduly influenced by highly visual damage that doesn't affect a Combatant's functionality effectiveness or defensibility. For example, a gash in a Combatant's armor may be very visible but only minimally reduce the armor's functionality.

Judges should look for damage that may not be visually striking but affects the functionality of a Combatant. For example:

- a small bend in a lifting arm or spinner weapon may dramatically affect its functionality by preventing it from having its full range of motion
- bent armor or skirts can prevent the Combatant from resting squarely on the floor, reducing the effectiveness of the drive train
- A wobbly wheel indicates that it is bent and will not get as much traction.
- Cuts or holes through armor may mean there is more damage inside.

Trivial

- Flip over (or being propelled onto bumper, ramp, or other obstacle) causing no loss of mobility or loss of weapon functionality.
- Direct impacts which do not leave a visible dent or scratch.
- Sparks resulting from strike of opponent's weapon
- Being lifted in the air with no damage and no lasting loss of traction.

Cosmetic

- Visible scratches to armor.
- Non-penetrating cut or dent or slight bending of armor or exposed frame.
- Removal of non-structural, non-functional cosmetic pieces (dolls, foliage, foam, or "ablative" armor).
- Damage to wheel, spinning blade, or other exposed moving part not resulting in loss of functionality or mobility.

Minor

Flip over (or being propelled onto bumper or other obstacle) causing some loss of mobility or control or making it impossible to use a weapon.

- Intermittent smoke not associated with noticeable power drop.
- Penetrating dent or small hole.
- Removal of most or all of a wheel, or saw blade, spike, tooth, or other weapon component, which does not result in a loss of functionality or mobility.
- Slightly warped frame not resulting in loss of mobility or weapon function.

Significant:

- Continuous smoke, or smoke associated with partial loss of power of drive or weapons.
- Torn, ripped, or badly warped armor or large hole punched in armor.
- Damage or removal of wheels resulting in impaired mobility
- damage to rotary weapon resulting in loss of weapon speed or severe vibration
- damage to arm, hammer, or other moving part resulting in partial loss of weapon functionality.
- Visibly bent or warped frame.
- Major: Smoke and visible fire.
- Armor section completely removed exposing interior components.
- Removal of wheels, spinning blade, saw, hammer, or lifting arm, or other major component resulting in total loss of weapon functionality or mobility.
- Frame warping causing partial loss of mobility or complete loss of functionality of weapon system.
- Internal components (batteries, speed controller, radio, motor) broken free from mounts and resting or dragging on the arena floor.
- Significant leak of hydraulic fluid.
- Obvious leaks of pneumatic gases.

Massive

- Armor shell completely torn off frame.
- Major subassemblies torn free from frame.
- Loss of structural integrity - major frame or armor sections dragging or resting on floor.
- Total loss of power.

Post-Match Inspection

Judges may request the combatant's to demonstrate operability of their robot's drive train and/or weapon following the end of the match, before the arena doors are opened.

Judges may inspect the Combatant's robot after a match to determine how best to award damage points. If a judge needs to examine one or both of the Combatants robot's before awarding damage points, he or she will notify the Stage Manager or other designated official immediately after the end of the match. The inspection will be conducted by the entire panel. The judges will not handle the Combatant's robot. The driver or a designated team member will handle the Combatant's robot. A member of the opponent's team will be present during any such inspection.

Awarding Damage Points

Scoring of damage points is based on relative grading of each robot's damage.

- 6-0: a 6-0 score shall be awarded when:
 - one robot suffers nothing more than trivial damage, and the other is at least significantly damaged
 - one robot has suffered major or massive damage and the other is no more than cosmetically damaged.
- 5-1: a 5-1 score shall be awarded when:
 - one robot suffers at least minor damage and the other suffers major or worse damage
 - One robot has suffered cosmetic damage and the other has suffered at least significant damage.
- 4-2: a 4-2 score shall be awarded when:
 - both robots have suffered nearly the same level of damage but one is slightly more damaged than the other
- 3-3: a 3-3 score shall be awarded when:
 - both robots have suffered the same level of damage, or
 - neither robot has even cosmetically damaged the other

Damage self-inflicted by a robot's own systems and not directly or indirectly caused by contact with the other robot or an active arena hazard will not be counted for scoring purposes.