

**Xtreme BOTS**  
**Regional Competition Procedures**  
**Revision Date: January 26, 2014**

## **1.0 Introduction**

### **1.1 Teams**

A team consists of at least three students, and one adult coach. Each team member must sign a liability waiver to participate. Team members under 18 must have a parent or guardian sign the waiver as well. We recommend each team be insured via their supporting organization such as a school, club as our insurance does not cover student injury. Each team must have two or more students and an adult coach at the competition in order to have their Bot compete. There is no limit to the number of students per team. Each team is allowed to have multiple adult supervisors and a Technical Advisor over the organization's teams. The students and adult coaches are only allowed to participate under one organization. Technical Training Advisors are allowed to be associated with more than one organization.

### **1.2 Competition Classes**

We offer the 15 lb Robot Class.

### **1.3 Divisions**

Currently middle school, high school and college teams all compete against each other. We will use random selection to determine the order of matches.

### **1.4 Robot Eligibility**

Robots may be used multiple years until the team decides to retire it or the robot wins the year end championship two times. Design innovation is encouraged during the season as a challenge for teams to develop more competitive robots. A robot is defined by its name. The chassis style can change during a season. The weight class must remain the same for that robot name. (Robots may not change from one organization to another.) No Student is allowed to compete with a robot he/she did not help to design/build.

### **1.5 Resolving Problems**

Any issues that need to be resolved should be sent to [info@xtremebots.org](mailto:info@xtremebots.org). The issue will be forwarded to the appropriate Xtreme BOTS Committee Members to discuss a resolution. This will be done as soon as possible. The decision will be final.

### **1.6 Contacting**

For questions, comments, requests and clarifications regarding the rules, regulations and procedures in this or other Xtreme BOTS documents, contact [info@xtremebots.org](mailto:info@xtremebots.org).

## **2.0 Registration Requirements**

### **2.1 Registration Fee**

The Registration fee is \$50.00 per robot/team.

## **2.2 Documentation**

The mission of this program is to educate people about manufacturing careers. Robot Documentation is used to show the process of building your robot and also as a learning exercise. The documentation includes schematics, drawings, photos, timelines, journals, etc. that show the process of building your robot. Documentation must be turned in at registration before the robot can compete. It should be updated throughout the year to keep current records.

# **3.0 Safety Rules**

## **3.1 Safety Glasses**

Safety glasses must be worn at all times in the pit area.

## **3.2 Robots on Blocks**

When they are in the pit area, robots must always be on an approved block, so that the wheels cannot touch the ground/table.

## **3.3 Restricted/Prohibited Activities**

Fighting, foul language or any unruly behavior is not allowed. Any violation of this may result in expulsion of the offending person or people from the Competition. The team involved may also lose their privilege to compete.

## **3.4 Smoking Prohibited**

Smoking is prohibited in all indoor areas.

## **3.5 Alcohol and Drugs**

The use of alcohol or illegal drugs is prohibited anywhere at the Competition.

## **3.6 Pits Area Restrictions**

Only team members, competition staff/volunteers, and press are allowed in the pits area. Everyone in the pit area must sign a liability waiver and wear a wrist band at all times.

## **3.7 Footwear**

All persons in the pits area are required to wear shoes. No sandals, flip-flops or open-toed shoes will be allowed.

## **3.8 Adult Supervision**

When any team member under 18 years old is working on a robot, a supervising adult needs to be present.

## **3.9 Robot Testing**

All robots drive and weapon tests need to be performed in a test cage or the arena, **NOT** in the pit area.

## **3.10 Robot transportation to the arena**

Any robot being transported from the pit area to the arena must have safety covers in place and must be completely deactivated.

# 4.0 Matches

## 4.1 Match Length

Each match will consist of three minutes, unless a robot is knocked out before that time.

## 4.2 Judging

Matches are judged on three criteria: Aggression, Control and Damage. If the match goes the full three minutes, the judges will decide the winner. The winner will be the robot with the most judges' votes. Each judge has one vote.

## 4.3 Robot Stuck Rule

Each robot is allowed one release during the match, if they were not obviously placed there by the other team. This means if your robot is stuck on the floor or the bumper, an official will stop the match, release the robot, and then restart the match. If both robots are stuck on each other they will be released as often as needed.

## 4.4 Robot unable to move

If a robot is unable to move during the match, a 10 second countdown will be started. If that robot cannot move by the end of the countdown, it will be considered a loss, and the other robot will be the winner of the match. Movement must be controlled.

## 4.5 Tap Out

If a team wishes to stop the match at any time, they may loudly declare "Tap Out." This will be an automatic loss for that team. The other team will not be allowed to attack them after they have declared a Tap Out.

## 4.6 Postponements

Postponements are not allowed. If you are not ready to compete when your team is called, you must forfeit the match. Each team must have one member assigned to its pit table at all times. If there is not a team member at the pit table when the team is notified of their match, the team may be forced to forfeit.

## 4.7 Length in Between Matches

There is no set time between matches, however, each team will be allowed at least 20 minutes between matches. During the Semifinal and Final rounds, we will have Bot Hockey, Grudge matches or Rumbles. Pit runners will inform someone in your pit area about your scheduled matches. Please have someone present in your pit area to be notified. Failure to be available could cause your team to forfeit.

# 5.0 Radio Operation Rules

The only radio control systems allowed are Spektrum or Hobby King 2.4 ghz spread spectrum radio systems.

# 6.0 Inspection Procedure

## 6.1 Internal/Functional Inspection

Each robot must pass both Internal and Functional Inspections before competing. Internal Inspection involves inspection of all of the components in a robot. Functional Inspection involves a demonstration that the robot can safely be controlled, and meets the fail-safe regulations listed in the Xtreme BOTS Technical Regulations. A copy of the Inspection form will be provided to each team.

## 6.2 Right to Inspect/Disqualify

We reserve the right to inspect or re-inspect your robot at any time during the competition. Any additions or changes to the robot must be re-inspected before competing, as well as after any significant damage during a match. If officials feel a robot is unsafe for any reason, and it cannot be made safe, it will be disqualified and not allowed to compete.

## 6.3 Building Cautions

Combat robot systems can be dangerous if not designed, constructed and tested properly. Damage during matches can render the robot unsafe. It is ultimately the responsibility of robot teams to ensure the safety of their system design.

# Glossary of Terms

**Arena** – The enclosed area that the robots fight in.

**Bye** – A robot does not have to compete in a Match and is automatically advanced to the next Round. Byes occur in an Elimination Tournament when it is not possible to schedule a competitor in the current Round.

**Eliminations** – The standard Tournament format composed of successive Rounds of competition. Two formats are Single Eliminations and Double Eliminations.

**Forfeit** – A robot loses a match because it was not ready to compete at the scheduled time.

**Hazards** – Powered weapons located in the arena that are controlled by persons outside the arena. Some arenas have hazards, the Xtreme BOTS arena does not.

**Knock-Out** – Occurs when the attack or deliberate actions of one robot cause the opponent to become incapacitated.

**Match** – Any competition between robots in the arena. This includes the regular three minute match, as well as a Rumble.

**Rounds** – One set of Matches, where all remaining competitors are paired off and compete (or receive byes), in order to advance in the Eliminations.

**Tap Out** – Occurs in a Match when a driver of a robot decides that he/she no longer wants to continue the Match, and concedes the win to the opponent.

**Aggression** – The frequency, severity, boldness effectiveness of attacks deliberately initiated by the robot against any opponent. If a robot appears to have accidentally attacked an opponent, that act will not be considered Aggression.

**Control** – The ability of the robot’s operator to move the robot in a specific and deliberate manner. Control means that a robot is able to attack an opponent at its weakest point, use its weapons in the most effective way, and avoid being stuck by the opponent or its weapons.

**Damage** – Through deliberate action, reduces the functionality, effectiveness or defensibility of an opponent. Damage is not considered relevant if a robot inadvertently harms itself. Also, if a pressure vessel or a rapidly spinning device on a robot fragments, any damage to the opposing robot will not be considered “deliberate”.