

# Robot Riot West

Participant Guide and Ruleset

Version 1

11/4/25



# This is a draft document and subject to change

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## 1. Background

This document outlines Robot Riot, an amateur robotics competition. Robot Riot was designed in response to the restrictive and exclusive nature of competitive robotics. Many competitions, such as FIRST or Battlebots, require near-expert knowledge, mentorship, impossible amounts of funding and equipment that scare away many would-be amateur entrants. In addition many competitions are stagnant and result in min/maxing where variety and creativity are punished. This is either due to a static rule set or the very nature of the type of competition involved. As a result robot competitions tend to be no more than homogenous groups of experienced engineers, entertaining only themselves and doing little to encourage outsiders to participate.

Robot Riot has been designed to address these flaws. Participants will have to both show off their building skills and win the audience's favor in order to pass each round. Each competition will also have its own themes and adjusted rulesets, forcing participants to stay on their toes. Additionally

the spirit of Robot Riot will encourage spectacles and theatrics. The competition will boast all the rivalries, trash talking, and sensationalism found in sports both traditional and nontraditional. The competition has been designed to promote STEAM skill development alongside creative bravado in order to draw in competitors from all skill levels and audiences from all backgrounds.

If the DARPA Challenges can be considered the Olympics and Battlebots can be considered boxing then ultimately I want people to consider Robot Riot as Wrestlemania.

## **2. Game Rules and Description**

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### **Participant Qualifications**

- There may be an individual age requirement depending on the event venue. Please inquire with the organizers at [admin@robotriotwest.com](mailto:admin@robotriotwest.com) for details.
- Participants can enter as an individual or within a group.
- Each individual or group can enter as many robots as they'd like, though each robot must have a different pilot and only one robot may be entered in a single bracket slot.
- Participants will be given a form that they will be required to sign and submit (via the [admin@robotriot.com](mailto:admin@robotriot.com) email) before the competition. The form allows the event organizers to use photo and video of participants and their robots, details rules and responsibilities, and outlines required and optional behavior at the event. All participants must submit this form at least one week before the event to qualify to participate. Extensions may be considered on a case by case basis.
- Participants must submit a video of the robot and all of its functions to the organizers (via the [admin@robotriot.com](mailto:admin@robotriot.com) email) before the day of the competition. All participants must submit this video at least one week before the event to qualify to participate. Extensions may be considered on a case by case basis.
- The organizers retain the right to disqualify participants at any time if they feel that a participant breaches the rules or otherwise hinders the spirit of the competition. They also retain the right to disqualify a participant if it is felt that their robot poses a threat to human safety or has the potential to damage the venue's property.

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## Bracket

Bracket types and sizes are wholly dependent on how many participants are involved and any special circumstances for each event. A bracket type will be confirmed at least 2 weeks before each event and participants will be notified. In all cases the bracket will be designed similar to a Swiss Style bracket where all competitors will get a set number of rounds, be awarded points based on the win conditions of these rounds, and a set of single elimination final matches will take place between participants with the highest amount of points.

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## Win Conditions

At the end of each match a winner will be decided based on the following win conditions. They take priority in the following order.

1. A participant becomes disqualified.
2. A participant decides to forfeit the match for any reason.
3. A participant's robot is destroyed beyond function.
4. A robot is pushed out of the arena.
5. The one minute match time limit is reached and neither robot has been destroyed or pushed out. A crowd vote will be held to decide the winner.

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## Terms for Disqualification

A participant can be disqualified for the following reasons:

- **The participant fails to arrive for their match in a reasonable time.** If possible the organizers will attempt to reschedule matches to allow unready participants to fight later. It is up to the organizer's discretion to move on with the event if they think participants are participating in good faith
- **The participant modified their robot significantly between their check-in and their match in such a way that breaches the robot qualification guidelines.**
- **The referee decides the participant should be removed from competition for any reason.**
- **The participant breaches the Participant Code of Conduct in a severe enough manner to warrant removal from the competition.**
- **The participant damaged another participant's robot, intentionally or unintentionally, outside of designated matches.**
- **A participant uses their robot to purposefully damage the arena.**

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## Arena Description

The arena will be a 48" diameter circular platform. 2" tall barriers will be located around half of the outer edges of the arena. Permanent damage to the arena caused by a match will be left alone through the duration of the competition. The table will be lightly cleaned / dusted between matches.

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## Awards

Awards may be distributed by either the competition organizers, the venue, or any competition partners. Awards may include trophies, medals, and robot parts but are not guaranteed. Additional awards and prizes may be given at the discretion of sponsors and venue providers. Awards can be distributed for performance in the competition, based on judge's personal choices, crowd choices, or other factors.

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## Participant Do's and Don'ts

This section outlines recommended and discouraged participant behavior. Though ignoring this list will not result in disqualification it does guide participants towards preparing themselves in a way that is in the spirit of the competition. By following these guidelines a participant may be able to easily build a robot that can both be effective in combat while earning the favor of the crowd.

### Participant Do's

- **DO** share ideas and suggestions with competition organizers.
- **DO** conspire with competition organizers and other participants for theatrics. The bigger the spectacle the better!
- **DO** invite as many friends as possible to cheer for you during judgments. Yes, it may seem like the judgment can devolve into a popularity contest but it is the sole responsibility of the participants to sway the hearts of the people.
- **DO** work with other participants to improve each other's robots and possibly form teams for future competitions.
- **DO** prepare a brief eulogy for your robot in the event that you enter a grudge match and lose or your robot is otherwise destroyed in a normal match.
- **DO** dress up for each event. Go full kayfabe and make a persona around your robot!
- **DO** engage in good sportsmanship.

### Participant Don'ts

- **DON'T** be salty. No one likes a sore loser. Extremely poor sportsmanship will affect a participant's future in the competition.
- **DON'T** sweat it.

### 3. Robot Design Guide

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#### Robot Qualifications

The qualifications have been designed to be lax enough to allow participants to use their full creativity in designing and piloting their robots while also ensuring that participants keep true to the spirit of the competition.

**Organizers reserve the right to disqualify robots if the organizers believe a robot poses a safety threat. The sooner you submit your robot idea to the organizers for review, the more likely you'll be OK'd for entry.**

- Robots must fit within a 15"x15"x15" box. Robots may expand or fold out beyond this size but must start the match at 15"x15"x15".
- A robot must not weigh over 10lbs.
- Robots do not need to be controlled directly by pilots but they must be able to be easily turned off and deactivated at any moment.
- Robots may have wired or wireless controls, but wireless communications must be shut off outside of that robot's matches.
- A robot is allowed to separate into multiple robots but each robot must either be autonomous or controlled by a single pilot.
- Robots must be designed to move around the arena.
- Robots may have physical projectiles but they will be strictly reviewed by the organizers. Physical projectiles may not be comprised of or contain sharp objects.
- Robots may not have weapons that involve flames, heat, explosives, liquids, or corrosives.
- Robots must not be designed to intentionally damage the arena.
- Robots with electrical power sources must be powered by an onboard battery. Batteries larger than lithium ion batteries will be strictly reviewed by the organizers. Power via mains electricity is not allowed.
- Robots can be non-electrical (IE "powered" by gravity via rolling down a ramp, etc).

The organizers retain the right to disqualify any robot if they feel the robot goes against the spirit of the competition or pose a potential safety threat.

#### Robot Do's and Don'ts

This section outlines recommended and discouraged robot design methodologies. Though ignoring this list will not result in disqualification it does guide participants towards designing robots that are in the spirit of the competition. By following these guidelines a participant may

be able to easily build a robot that can both be effective in combat while earning the favor of the crowd.

## **Robot Do's**

- DO add dances, taunts, flashing lights, and playable songs to your robot.
- DO consider different methods of control. Remote control, random movement, or even autonomous sensing/planning/acting systems are fine. Razzle dazzle the crowd with technical prowess or entertain the crowd and bewilder your opponent with erratic, unpredictable plays!
- DO design your robot with signature moves. Remember, this is the Wrestlemania of robotics. Give your robot the mechanical equivalent of the People's Elbow. Be sure to let the competition organizers know about these signature moves when you submit your form!
- DO spend effort on how your robot looks. If your cover is well-judged by your crowd it could be a surefire way to win the People's Choice award.
- DO be flexible with your robot. Make it easy to modify, even consider adding parts that can easily be removed and added to other competing robots! You may change or make additions to your robot during the competition itself given that these alterations do not go against the other mandatory guidelines. You may even want to cooperate with other participants to swap parts. In similar competitions such as Hebocon it's encouraged for losing participants to offer parts of their robots to the robots who defeated them so their fighting spirit can live on.
- DO make a robot modular! If it's lucky enough to survive the first competition it enters you can easily modify it for future fights. It's survival of the fittest! Though I guess when we're talking about robots that can't reproduce that may not be the best use of the colloquialism. I'm sure you understand what I'm getting at anyway.

## **Robot Don'ts**

- DON'T design your robot so that it poses a safety threat. If you have to ask yourself "is this safe?" it probably isn't.
- DON'T go for the easy win. Maximizing kill efficiency may not necessarily help you win the judgment vote.
- DON'T add anything to your robot that you will miss. Be at peace with the knowledge that your robot will possibly be subject to complete and utter destruction. Victory, defeat, material desire; it's all fleeting! Live for the moment!

## **4. Participant Application**

Applications are a two part process, the application form and the robot video. Both must be submitted at least one week before the event to be considered

1 -The digital application form is available here

<https://forms.gle/sqTnfPKiL7jyKQVd8>

2- To submit a video of your robot, upload the video to youtube or another video sharing service and e-mail the link to [admin@robotriotwest.com](mailto:admin@robotriotwest.com). Contact us via e-mail if you need an alternative way of sharing the video. Videos should show the robot functioning and include all of its features so that we can judge how safe it is. Qualification videos will not be shared before the competition.

This document was ~~shamelessly stolen~~ adapted from the Robot Riot Participant Guide, Ruleset and Application guide Version 10



