

PART 2025-2026 Ruleset v1.0

Approved Nov 15, 2026

We follow the [SPARC Robot Construction Specifications v1.6](#) with the following modifications.

Placer Robotics Sparc 1.6 Rule Modifications Highlights

1. **Original Bot Rule - New Section 18**
2. **Magnetic Downforce - New Section 17**
3. **Tip Speed Limit 250mph Section 12 Addition**
4. **No Fire, Flamethrowers, Smoke, Pneumatics, Special Weapons, Internal Combustion Engines (ICE) and liquid fuels, etc**
5. **Normal arena wear is expected, but robots may not use weapons or components that cause excessive or avoidable damage to the arena.** Examples include overly sharp blades, points, or edges that dig into or gouge the floor or walls beyond typical match wear. If a robot's weapon or design is judged likely to cause **significantly more damage than a standard match**, the Event Organizer may require changes before it can compete. Contact us in advance if you are not sure, we're happy to help review.

Note: Modifications 3-5 apply to all events hosted by Placer Robotics or those that use Placer Robotics arenas.

These rules apply to any event hosted by PART with the exception of the Sacramento Bot Battles 15lb (BotsIQ Education) weight class. SBB NRL is governed by the National Robotics League Ruleset.

Section 3 General Additions

3.4.8 Safety Covers are required on all external sharp points - weapons, forks, or similar sharp edges on the exterior of the Bot, installed such that they will prevent injury to someone bumping or striking those parts. Cardboard or any material easily pierced is not allowed.

3.5 Battery Safety

3.5.1 Batteries must be stored in a LiPo Bags and/or ventilated metal box when not in use

3.5.2 Batteries must be charged in a LiPo Bag and/or ventilated metal boxes

3.5.2 Batteries may only be installed just prior to entering the arena or designated test box.

3.5.3 Batteries must be removed from the robot immediately following the match or test activities

3.6 Designated Battery Charging Areas

PART events held at certain indoor locations will have dedicated battery charging area(s) for safety purposes, including all events at the Placer Robotics Center. When these areas are provided, builders are required to store and charge batteries solely in the designated areas.

Section 4 Weight Classes Additions

4.2 Onboard Video Camera/Streaming Device Allowance

All weight classes are allowed up to a 5% weight bonus for on-board video camera/streaming devices, and these devices must be able to be removed if requested by the opponent prior to a match. The standard, or “base,” weight for each division is defined by a wheeled drive system.

6. Robot control requirements

This section replaces Sparc v1.6 construction rule section 6 entirely for simplification purposes.

6.1 All combat robots must be radio controlled. At this time 2.4GHz is the primary frequency used, and any other method of control must be approved by the event organizer before the event.

6.2 Tethered control is not allowed.

6.3 Radio systems that stop all motion in the robot (drive and weapons), when the transmitter loses power or signal, are required for all robots. This may be inherent in the robot's electrical system or be part of programmed fail-safes in the radio.

6.4 All robot radio systems must have a way to change frequencies or coded channels to prevent radio conflicts. Digital spread-spectrum radios that use frequency hopping or automatic channel selection qualify under this rule.

6.5 Toy radio systems (27mhz, 49mhz, or Bluetooth) are not allowed.

6.6 PART does not require a separate power switch for the radio.

6.7 PART allows only 2.4ghz transmitter/receivers at this time.

8. Batteries and Power - Change to 8.2

8.2 All onboard voltages **are limited to 26 Volts or 6S LiPo** above **48 Volts or 12S LiPo** ~~require prior approval from this event.~~ (It is understood that a charged battery's initial voltage state is above their nominal rated value.)

Section 9. Pneumatics Modification

Pneumatics are not permitted in PART events at this time. Contact the event organizer to discuss exceptions.

Section 10. Hydraulics Modification

Hydraulics are never permitted in PART events.

Section 12. Rotational weapons or full body spinning robots Addition

12.3 Spinning weapons cannot exceed 250 miles per hour at the weapon tips. If competitors are found to be exceeding this limit, they risk immediate disqualification. The electromechanical system design is the preferred method for the rpm limit. Limit can be imposed with software limits within a radio or controller settings, but must be disclosed and approved by the event inspection and safety officials. Builders are advised to check their limit using an [online calculator](#).

Section 13 Springs and flywheels

This section is currently under review by PART. Please contact the event organizers before registering for a PART event with a robot that utilizes spring/flywheel weapons.

Section 16. Additions

16.3.1.4. As per Sparc 1.6, TPU is not a permitted material in the Plastic Ant class. PART allows the sole exception of the sole exception of TPU weapon or drive belts, which are permitted as emergency replacements of COTS belts

Section 17 Magnetic Downforce Limits (new section)

17.1 Robots using magnets for extra traction must not generate more magnetic force than their own weight. To verify this, the robot should not be able to hang upside down when lifted onto a metal surface

Section 18. Original Work Expectation (new section)

Experienced builders/teams are expected to field robots that reflect their own design, construction, and problem-solving.

Novice builders may rely more heavily on kit frameworks or official beginner reference designs to get started.

Unacceptable Cloning & Mass-Production:

Producing multiple substantially identical robots—whether for yourself or to distribute to other teams—is not allowed, unless those robots originate from an approved commercially available kit.

Advanced builders may not create “copies” of their own custom robot for other teams to use as a shortcut into competition.

Use of Kits:

Commercially available combat robotics kits (e.g., Palm Beach Bots, FingerTech, SCAR kits, and Impact Robotics League reference designs) are allowed. Builders are expected to assemble and configure the kit themselves, and customization is strongly encouraged.

Event Organizer Authority:

Robots / Teams may be disqualified at the Event Organizer’s discretion if they are found to violate the spirit or intent of this rule, even if they technically fit the written wording.

If you are unsure whether your robot meets these expectations, **you must contact the Event Organizer for approval before registering for the event.**

Current Approved Kits

- **Palm Beach Bots (Palm Beach Beater, Plastic Ant kits)**
- **FingerTech Robotics (Viper kit)**

- **Repeat Robotics (Scalar antweight kit, Peter Bar beetleweight kit)**
- **Turnabot / SCAR (SCAR Plant drive kits, Turnakit components)**