sphero robotics™ COMPETITION

SRC: LAUNCH PARTY 26-27



💡 **A note about this Competition Manual**

This Competition Manual receives ongoing updates (major and minor). Each published version is official and mandatory for all Sphero Robotics Competition events. New versions immediately supersede prior ones.

For any questions related to this Competition Manual, please email support@teamalliance.org.

Version History:

Version 1.0 - May 11, 2026 - initial release
Version 2.0 - July 15 2026 - Major Update

- **Changed page numbering to match PDF numbering**
- **Updated Field at a glance diagram to specify Starting Areas**
- **Added "Live" to Remote Events in Live Remote Event Definition**
- **Added a link to the TEAM Alliance Student-Powered Policy on LP-G1**
- **Updated images on LP-SC3**
- **Updated LP-E2 to add that a Team cannot use the Competition Field walls, Dividing Wall, or Panels as part of the lift**
- **Updated explanation of Partial Lift in LP-SC5**
- **Updated images in LP-SC5**
- **LP-R4 - Clarification on robot sizing**
- **LP-T1 - Added tiebreaking criteria to Tech Trials**
- **LP-T3 - Added criteria to end Tech Trial early**
- **LP-T4 - Added tie-breaking criteria from LP-T1**
- **LP-T5 - Added tie-breaking criteria from LP-T1**
- **Tech Trial Field at a Glance - Added that Tech Trials can be played from either side of the Competition Field**
- **LP-E3 - Added first Heat is randomized matches**
- **LP-E3 - Added clarifications to WLT Points and Match scheduling**
- **LP-E4 - Added clarification to Finals Bracket makeup**
- **LP-E4 - Added clarification to how Teams are ranked for the Finals Bracket**
- **LP-E4 - Added clarification that Finals bracket matches are single elimination, and what happens in the event of a tie.**
- **LP-E6 - Provided specific awards that are available at Qualifying Events and Championship Events and additional awards that can be offered.**
- **Section 10 - Rewrote LP-CE1 to clarify advancement criteria and and added LP-CE2 for Global Ranking**

Version 2.1 - September 2, 2026 - Minor update

- **Rename Technology Trial to Tech Trials**
- **LP-G1 - Updated Student-Powered™ violation conditions**
- **LP-G2 - Updated Code of Conduct**

Version 2.2 - November 2, 2026 - Minor Update

- **Added definition for No Show at a match**
- **Added 3D Printing Appendix**

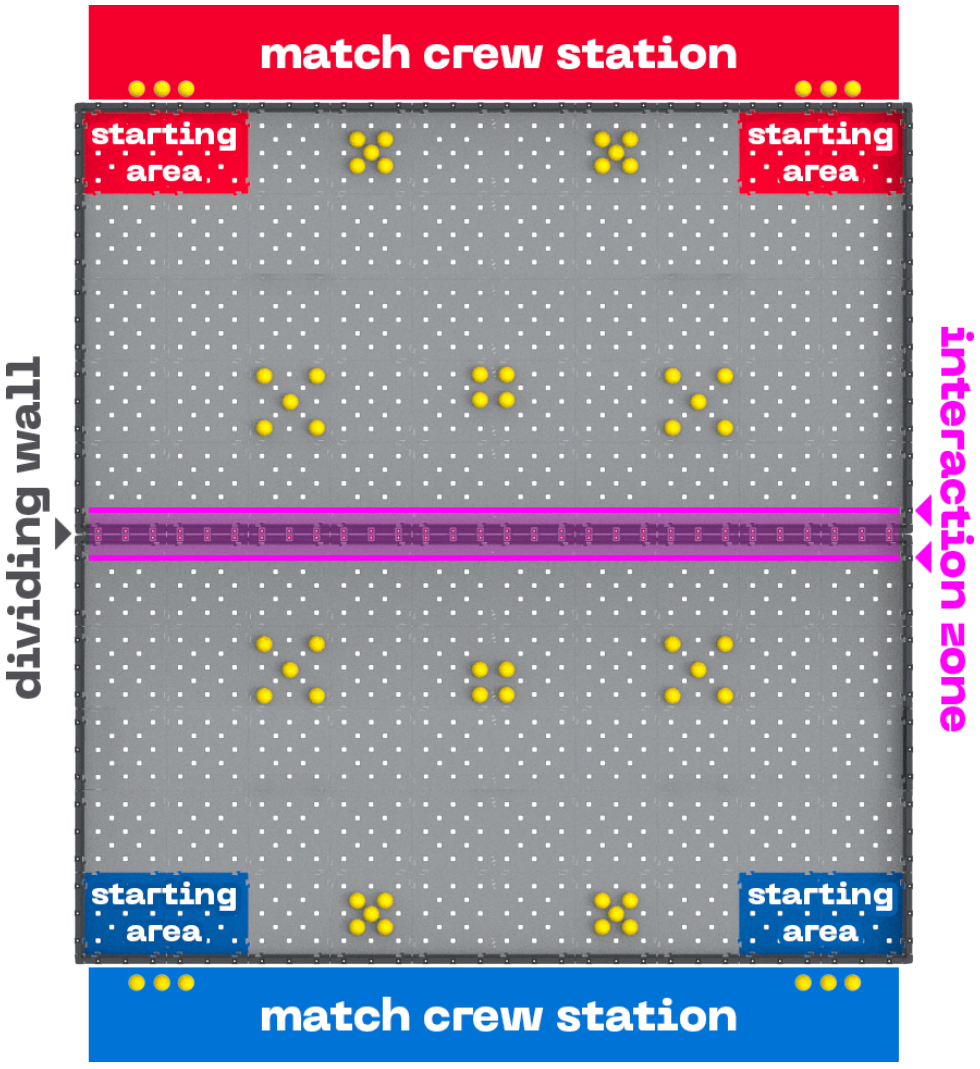
1 — What is SRC Launch Party?

The Sphero Robotics Competition (SRC) Launch Party is an after-school robotics competition for ***Students***. Two ***Teams***, each running up to two ***Robots***, face off on a shared field divided by a wall. Your job is simple: get as many ***Balls*** as possible onto your opponent's side before time runs out.

The twist? Every ***Ball*** still contained on your side when the ***Match*** ends counts against your ***Team***. There's no sitting still — ***Teams*** that keep moving and launching ***Balls*** do better than ***Teams*** that wait.

The Field at a Glance

The ***Competition Field*** is made up of 100 square tiles (each 300mm x 300mm), giving a total playing surface of approximately 3m × 3m. A 50mm-wide ***Dividing Wall*** runs across the middle. Each ***Team*** starts their ***Robots*** in their own ***Starting Areas***. Both sides of the field have the same setup: ***Balls*** are placed on specific floor tiles, resting in the Blueprint Connectors of the tile, and some are ***Preloaded*** in ***Robots***.





Term	What it means
Ball	The spherical scoring object for SRC Launch Party
Coding Tech Trial	A ***Tech Trial*** completed by a single ***Team*** autonomously.
Competition Field	The 100 floor tiles (300mm x 300mm each), field walls, 50mm ***Dividing Wall***, and ***Panels.***
Disqualification	If an ***Infraction*** leads to a ***Team*** that caused the ***Infraction*** to win a ***Match***, it becomes a ***Match*** affecting ***Disqualification***. The ***Team*** receives a score of 0 for that ***Match***.
Dividing Wall	The barrier running across the middle of the field. ***Robots*** may extend past the wall into the ***Interaction Zone***, but they may not extend beyond the ***Interaction Zone***. See LP-M12.
Match Crew	A group of ***Students*** who control ***Robots*** from behind the ***Competition Field*** boundary during the ***Match***. Up to six (6) ***Students*** per ***Match Crew.***
Endgame	The final 20 seconds of the **Match**. Special rules apply. See Section 6.
Field Element	Any element that is a part of the ***Competition Field***.
Full Lift	A function of the ***Endgame*** that provides points based on ***Robot*** status.
Head Referee	The volunteer who oversees a ***Match*** or ***Tech Trial***, enforces the rules, and makes final rulings on ***Robot*** interactions and gameplay. Their call is final during an event.
Heat	A set of ***Matches*** (typically two per ***Heat***) that are run at an event. The event schedule is updated between ***Heats*** based on the event win-loss-tie record of the ***Teams***.
Infraction	A ***Robot*** or ***Match Crew*** action that breaks a rule in this Competition Manual.
Interaction Zone	The 75mm area on either side of the ***Dividing Wall*** where ***Robot*** to ***Robot*** interaction is possible and allowed.
Match	2-minutes of ***Team*** versus ***Team*** competition. Includes the 20-second ***Endgame***.
Operating Tech Trial	A ***Tech Trial*** completed by a single ***Team*** using driver control.
Out of Play	A ***Ball*** that has left the ***Competition Field*** entirely. See LP-SC4.
No Show	When a ***Team*** does not place at least one ***Robot*** on the ***Field*** at the beginning of a ***Match***. ***Matches*** with a ***No Show Team*** will still be run and scored normally with the exception that the ***Preloads*** for the ***No Show Team*** will be placed on the ***Field*** where their ***Robots*** would have started the ***Match***.
Panels	A ***Field Element*** that is placed between the ***Dividing Wall*** and raises the ***Dividing Wall*** height to 375mm - ***Panels*** become part of the ***Dividing Wall***. See ***Dividing Wall***.
Partial Lift	A function of the ***Endgame*** that provides points based on ***Robot*** status
Preload	***Balls*** touching a ***Robot*** before a ***Match*** begins. All six (6) ***Preload Balls*** must be touching a ***Team Robot***.

Robot	A Blueprint Robotics Swerve Drive ***Robot*** and its attached mechanisms that are designed by ***Students***. All ***Robots*** that pass inspection will be considered ***TEAM Ready*** for competition.
Scorekeeper	A volunteer who tracks ***Balls*** and scores each ***Match*** or ***Tech Trial***. The ***Scorekeeper*** monitors the ***Competition Field***, counts ***Balls*** at the end of a ***Match***, determines lift status, and records the official result. They work alongside the ***Head Referee*** but do not make rulings on ***Robot*** interactions or gameplay.
Starting Area	The corners where each ***Robot*** begins. ***Robots*** must be touching both walls of its corner at the start of each ***Match***. Only one ***Robot*** per ***Starting Area***.
Student	Anyone born on or after September 1, 2007.
Team	A group of ***Students*** registered on myTEAMevents.org competing with up to two (2) ***Robots***.
Team Coordinator	The adult who supports the ***Team***. They help ***Students*** learn but do not design, build, code, or coach the ***Team***.
TEAM Ready	A ***Robot*** that passes inspection at an event. See Section 7.
Tech Trial	***Tech Trials*** are 60 second additional challenges for ***Teams*** to complete individually.
Trial Stop Time	The amount of time left on the ***Tech Trial*** timer when a ***Team*** indicates to the ***Scorekeeper*** that they have completed the ***Tech Trial***.
Warning	Occurs when a ***Team*** that causes an ***Infraction*** does not win a ***Match*** because of the ***Infraction***. Multiple ***Warnings*** can lead to a ***Disqualification***.
WLT Points	***Win-Loss-Tie (WLT) Points*** are tracked at an event based on the results of a ***Team's Matches***. After the first ***Heat***, the event schedule for subsequent ***Heats*** is generated based on ***Teams*** with similar ***WLT Points***.

Event Terms	What it means
In-Person Event	Events that are included as an option with In-Person ***Team*** registrations. These events allow a ***Team*** to run ***Team*** vs ***Team Match*** and ***Tech Trials*** at a location with other ***Teams***.
Live Remote Event	Events that are included as an option with In-Person SRC ***Team*** registrations. These events allow a ***Team*** to run ***Tech Trials*** remotely with other ***Teams***.
Prequalifying Event	An early season ***In-Person Event*** that does not qualify for a ***Championship Event*** (or any other event). An In-Person ***Team*** registration includes entry to one ***Prequalifying Event***.
Qualifying Event	An ***In-Person Event*** that qualifies ***Teams*** for ***Championship Events***. See Section 10. An In-Person ***Team*** registration includes entry into one ***Qualifying Event***.
Championship Event	A state, regional, or national event that serves as the culminating competition for ***Teams*** that qualify through designated ***Qualifying Events***. In the U.S., ***Championship Events*** are typically state-level, but may include multiple ***Championship Events*** within a single state or combining multiple states into a regional ***Championship Event.*** Internationally, regional or national ***Championship Events*** are used where geographic considerations apply.

2 — How Scoring Works

The ***Team*** with the highest score at the end of the ***Match*** wins.

Situation	Points
Each ***Ball*** on opponent's side of the field at ***Match*** end	**+1 per *Ball***
Each ***Ball*** still inside an opponent's ***Robot*** at ***Match*** end	**+2 per *Ball***
Partial Lift during ***Endgame***	**+ 5**
Full Lift during ***Endgame***	**+ 15**

Scoring Rules

LP-SC1 Scoring is calculated after the *Match* ends

Scores are counted five (5) seconds after the timer reaches 0:00, or once all ***Balls*** and ***Robots*** have stopped moving — whichever happens first.

LP-SC2 A *Ball* on a field tile at the end of the *Match*

A ***Ball*** gives +1 point to a ***Team*** if all of the following are true at the time of scoring:

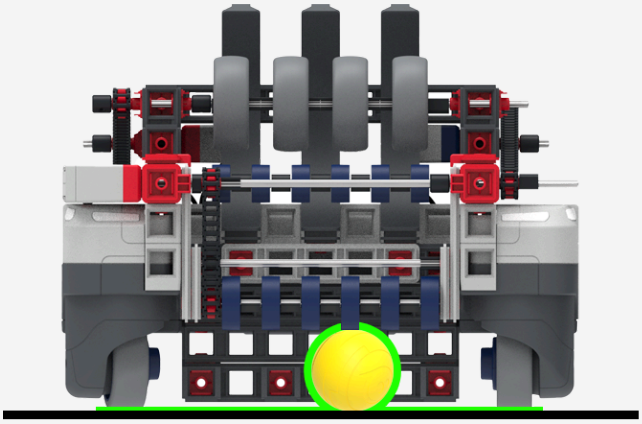
- It is on the opponent's side of the ***Dividing Wall***.
- It is touching a ***Competition Field*** tile.

LP-SC3 *A Ball* inside a *Robot* at the end of the *Match*

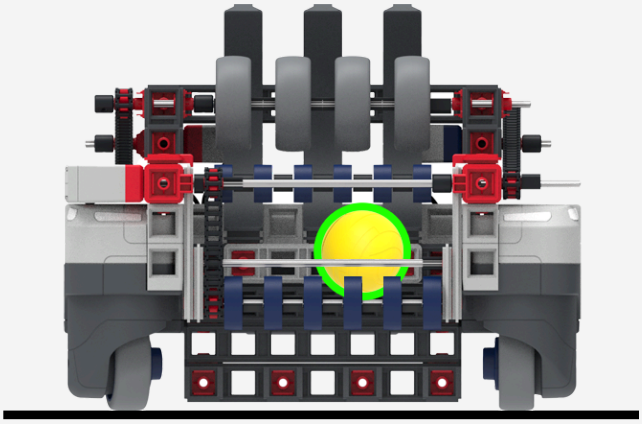
A ***Ball*** gives +2 points to a ***Team*** if all of the following are true at the time of scoring:

- It is on the opponent's side of the ***Dividing Wall***.
- It is inside, on, or held by an opponent ***Robot***, and not touching a ***Competition Field*** tile.

> ⚠ **Watch out**
> Don't possess ***Balls*** at the end of the ***Match***. Launch everything you can.



+1 to opposing team



+2 to opposing team

LP-SC4 *Balls* that leave the field come back to the *Team* that launched them

If a ***Ball*** exits the ***Competition Field*** entirely, it is ***Out of Play***.

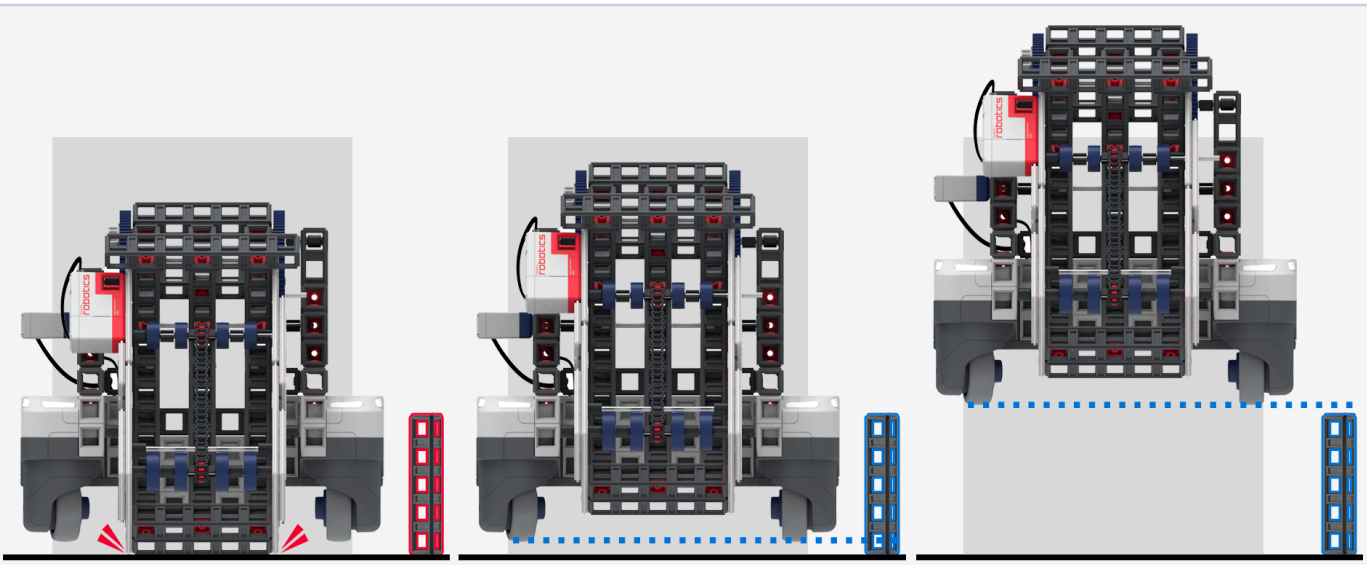
- A volunteer retrieves the ***Ball*** and places it back into a ***Starting Area*** on the launching ***Team***'s side of the field.
- A ***Ball*** resting on top of the ***Competition Field*** (including the walls) without fully exiting is still in play and should only be touched by a ***Robot***.
- Any ***Balls*** outside of the ***Competition Field*** at the end of the ***Match*** have to be returned to the appropriate ***Starting Area*** before scoring the ***Match***

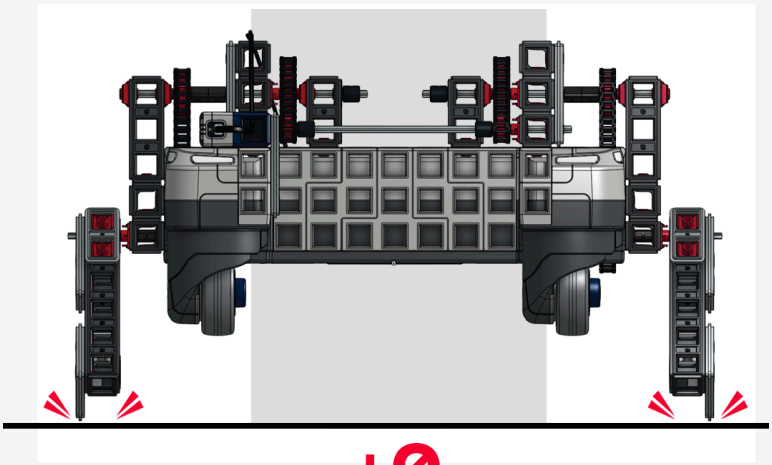
> ✔ **Tip for your *Team***
> Launching ***Balls Out of Play*** is not a safe strategy — the ***Ball*** comes right back to you, costing your ***Team*** time. Focus on getting ***Balls*** over the wall and onto your opponent's side of the ***Competition Field*** instead.

LP-SC5 Lifting earns additional points

During a ***Match***, one ***Robot*** per ***Team*** can be lifted by its partner ***Robot***. The lift must still be held at the 5-second scoring mark.

- ***Partial Lift***: one (1) ***Robot*** is not touching the ***Competition Field***, but not entirely above five (5) pitch (125 mm) height. Worth +5 points.
- ***Full Lift***: one (1) ***Robot*** is not touching the ***Competition Field*** and is entirely above five (5) pitch (125 mm) height. Worth +15 points.
- Only one lift bonus is awarded per ***Team*** per ***Match***.
- See LP-E2 for details


+0
+5
+15


+0



3 — Safety First

These rules exist to keep everyone safe. They apply to ***Students***, Team Coordinators, Event Hosts, and anyone else at an SRC Event. Safety rules are not negotiable.

LP-S1 Keep it safe at all times

If a ***Robot***'s actions or a ***Team***'s behavior is unsafe at any point — before, during, or after a ***Match*** — the ***Head Referee*** can disable that ***Robot*** for the rest of the ***Match*** or remove the ***Team*** from the Event entirely. The ***Robot*** must pass re-inspection before it can compete again.

LP-S2 *Students* need a *Team Coordinator* present

Every ***Student*** at an SRC Event must have a responsible adult Team Coordinator or other responsible adult with them for the full duration of the Event.

LP-S3 Stay behind the *Competition Field* boundary during Matches

The ***Match Crew*** must stay behind the ***Competition Field*** perimeter boundary for the entire ***Match***. The only exception is at the permission of the ***Head Referee***. An example situation is if a ***Team***'s ***Robot*** has not yet moved in the ***Match*** and the ***Match Crew*** needs to interact with the ***Robot*** to get it started.

LP-S4 Wear safety glasses at the *Competition Field*

All of the ***Match Crew*** must wear safety glasses (or glasses with side shields) while standing at the field during a ***Match***. We also strongly recommend safety glasses in pit and queuing areas.

LP-S5 Waivers must be on file

Every ***Student*** competing must be registered on myTEAMevents.org including having a ***TEAM Alliance*** Participation Waiver on file before they can take the field. No waiver, no play.

4 — How Everyone Should Act

Sphero Robotics Competition is a Student-Powered™ program. That phrase means something specific: ***Students*** do the work. Team Coordinators support without doing. Everyone treats each other with respect.

LP-G1 Sphero Robotics Competitions are Student-Powered™

Students design, build, code, strategize, and operate their own ***Robots***. Team Coordinators can teach concepts, ask guiding questions, and help ***Students*** reflect on what went wrong — but they cannot make design decisions, write code, build mechanisms, or give strategy or instructions before, during, or after a ***Match***.

If a referee asks a ***Student*** to explain how their ***Robot*** works, the ***Student*** should be able to answer.

If a ***Team*** is found to have Robots that were designed, built, or coded by an adult instead of the ***Students***, the ***Team*** will first be given an opportunity to remove the adult contribution and make corrections using only ***Student*** work. If the ***Team*** can bring its Robot, code, or other competition work into compliance, it may continue competing. Using Rapid Robot designs and code are allowed.

If the adult contribution cannot reasonably be removed or corrected before Matches are played, the ***Team*** will be removed from the Event. The ***Head Referee*** makes the final on-site determination for ***Student-Powered*** violations and may consult with the ***Event Host*** or ***TEAM Alliance*** when needed.

> 💡 **Why this rule exists**
> A major goal of SRC is for ***Students*** to build real skills. When adults do the work, ***Students*** miss out on the experience that makes this competition valuable. Read the TEAM Alliance Student-Powered Policy for more information.

LP-G2 Code of Conduct – Treat everyone with respect

Every person at an SRC Event — ***Students***, Team Coordinators, volunteers, referees, spectators — deserves to be treated with respect and must abide by the TEAM Alliance Code of Conduct. Conduct and behavior issues are handled separately from gameplay infractions. The ***Event Host*** has the final authority to address inappropriate behavior and, when necessary, remove a ***Student***, adult, or ***Team*** from the Event. ***TEAM Alliance*** may be contacted for assistance with significant conduct situations.

> ✔️ **Tip for your *Team***
> Winning is better when everyone is treated appropriately. Read the TEAM Alliance Code of Conduct for more information.

LP-G3 Your work should reflect your *Team*'s own abilities

Your ***Robot***, code, and strategy should come from the ***Students*** in your ***Team***. You can get inspired by what you see other ***Teams*** doing, but your final ***Robot*** needs to be your own work — and you need to be able to explain it.

- Team Coordinators, parents, outside engineers, and ***Students*** from other ***Teams*** may not build, code, or design for you.
- If a referee asks you to walk them through your ***Robot*** or code, you should be ready to do that.

> ⚠️ **Watch out**
> If a student cannot explain how their ***Robot*** works to a referee or inspector, it may be considered an ***Infraction*** of this rule.

LP-G4 One *Team* per *Student* per season

Each ***Student*** can only compete for one SRC ***Team*** during a given competition season. A ***Student*** cannot split time between multiple ***Teams***' ***Robots*** or code. Exceptions may be granted by TEAM Alliance for ***Students*** who need to switch ***Teams*** due to changing schools, unresolvable ***Team*** conflicts, or other non-strategic circumstances.

LP-G5 Use good judgment

These rules can't cover every possible situation. When something unusual happens that isn't explicitly addressed, the ***Head Referee*** will use the spirit of the rules to make a call. If an action would obviously be unsafe, unfair, or against the competition's values, it's probably not allowed even if it's not written down.

5 — *Match* Rules

These rules describe what's allowed and not allowed during a ***Match***. Read them before your first event so nothing surprises you on ***Match*** day.

Before the *Match* Starts

LP-M1 How to set up for a *Match*

Before each ***Match***, every ***Robot*** must meet all of the following:

- The ***Robot*** passes inspection (see LP-R4 for dimensions).
- The ***Robot*** is touching both walls of its ***Starting Area***.
- If more than one ***Robot***, each ***Robot*** is in a different ***Starting Area***
- The ***Robot*** is not touching any ***Balls*** except ***Preload Balls*** (see LP-M2).
- No part of the ***Robot*** is moving.

> ⚠️ **Watch out**
> If a ***Robot*** can't meet these conditions in time, it may be held out of the ***Match***. This isn't a ***Disqualification*** — but the ***Robot*** won't compete in that ***Match***. A ***Match*** can be played with only one ***Robot*** on the ***Competition Field.***

LP-M2 Preloading *Balls* before the *Match*

Each ***Team*** must start with six (6) ***Balls*** touching a ***Robot***. A ***Robot*** with a loaded ***Preload*** must still fit within the starting size (see LP-R4).

During the *Match*

LP-M3 *Match Crew* must stay behind the *Competition Field* boundary

During the ***Match***, the ***Match Crew*** must stay behind the ***Competition Field*** boundary across from the ***Dividing Wall*** the entire time. You can cheer, talk strategy with your other ***Match Crew*** members, and operate the ***Robots*** — but you cannot reach into the ***Competition Field***, touch ***Balls*** on the ***Competition Field***, or touch any ***Field Element***. (See LP-S3)

- Up to six (6) ***Match Crew*** per ***Team*** may be present at the boundary.
- No communication devices (i.e. phones, radios, tablets) during the ***Match***.
- Only ***Match Crew*** can give instructions during a ***Match***.

LP-M4 Matches are for up to two *Robots* per *Team*

Robots (up to two) from your ***Team*** need to be at the ***Competition Field*** on time for every assigned ***Match*** on the event schedule. At the discretion of the ***Head Referee***:

- If a ***Team*** has a scheduled ***Match*** and no operating ***Robots*** the ***Team*** can still obtain a score in the ***Match*** by having at least one (1) ***Match Crew*** member present at the scheduled start time of the ***Match***.
- If a ***Team*** has a scheduled ***Match*** and no ***Robots*** or ***Match Crew*** members are present at the scheduled start time the ***Team*** receives a ***Disqualification*** for that ***Match***.

LP-M5 No holding an opposing *Robot* for more than a 5-count

Your ***Robot*** cannot trap or pin an opposing ***Robot*** for more than five (5) seconds at a time.

- The ***Head Referee*** will initiate a verbal count when they see holding begin.
- After a hold ends, a ***Robot*** must remain one tile (300mm) away from the opposing ***Robot*** for at least 5 seconds before re-engaging.

> ⚠ **Watch out**
> Repeated or intentional holding ***Infractions*** can result in a ***Disqualification***, even if the ***Infraction*** isn't ***Match*** affecting. Do not make a strategy around holding.

LP-M6 Don't try to damage other *Robots*

Strategies specifically designed to overturn, entangle, or damage opposing ***Robots*** are not allowed. Contact is allowed in the ***Interaction Zone***. Any ***Robot*** in the ***Interaction Zone*** takes the risk of contact with an opposing ***Robot***.

- Defensive play that doesn't involve destructive moves is allowed.
- You are responsible for what your ***Robot*** does, including during autonomous routines.
- Overturning an opposing ***Robot***, even if not intentional, is a ***Disqualification*** to the offending ***Team***

LP-M7 You can't force your opponent into a penalty

If your ***Robot*** deliberately causes an opposing ***Robot*** to break a rule, the penalty will not be applied to them — it may be applied to you instead. Trap-setting or rule-bait strategies are not allowed.

LP-M8 Keep your *Robot* in one piece

Robots cannot intentionally release or drop parts during a ***Match***. If a part falls off by accident, it's no longer considered part of the ***Robot*** and should be ignored for all scoring and contact rules. The ***Head Referee*** will decide if detachment was intentional.

LP-M9 Don't anchor your *Robot* to the field

Your ***Robot*** cannot hook, clamp, or latch onto any part of the ***Competition Field*** structure — the ***Dividing Wall***, the field perimeter, or anything else. You can push against the ***Competition Field*** wall, but you can't grab it.

LP-M10 There is no *Robot* possession limit on *Balls*

There is no limit to how many ***Balls*** a ***Robot*** can carry at one time. Reminder: The opposing ***Team*** receives +2 points for every ***Ball*** still held in your ***Robot*** when the ***Match*** ends (LP-SC3).

> 💡 **Why this rule exists**
> We intentionally don't cap ***Ball*** possession. Strategic hoarding has a potential penalty through the scoring model.

LP-M11 *Robots* stay on their own side of the *Competition Field*

No part of your ***Robot*** may extend past the ***Interaction Zone*** boundary on your opponent's side of the ***Competition Field***.

LP-M12 *Robot* expansion limits during the *Match*

Once the ***Match*** begins, your ***Robot*** cannot expand beyond its ***TEAM Ready*** inspection size (see LP-R4) and must stay within these limits until the ***Endgame*** (see Section 6) where all size limits are removed.

LP-M13 *Balls* that leave the *Competition Field* get put back

If a ***Ball*** flies over the ***Competition Field*** perimeter and exits the playing area, it's ***Out of Play***. A volunteer retrieves the ***Ball*** and returns it to the nearest ***Starting Area*** on the launching ***Team***'s side of the ***Competition Field***. A ***Ball*** resting on top of the ***Competition Field*** perimeter (but not outside it) is still in play.

6 — The *Endgame* (Final 20 Seconds)

The ***Endgame*** begins when the ***Match*** timer hits 0:20. It's a chance for ***Teams*** to expand beyond the ***TEAM Ready*** inspection size.

LP-E1 Size limits are removed during the *Endgame*

When the ***Endgame*** starts, horizontal and vertical expansion limits no longer apply. Your ***Robots*** can extend to any size needed to attempt a lift or continue launching ***Balls***.

- Your ***Robots*** still cannot cross the ***Interaction Zone*** boundary into the opponent's side (LP-M12 still applies).
- Your ***Robots*** still cannot anchor to the field (LP-M10 still applies).

> ⚠️ **Watch out**
> Expanding before the ***Endgame*** begins is an ***Infraction***. If you expand early and it affects the ***Match***, it may result in ***Disqualification***.

LP-E2 One *Robot* per *Team* can attempt a lift

During the ***Match***, one ***Robot*** can be lifted by its partner ***Robot***. Neither ***Robot*** on the ***Team*** may be touching the ***Competition Field*** walls, ***Dividing Wall***, or ***Panels*** to assist the lift. If the lift is still true when the ***Match*** ends (at the 5-second scoring mark), your ***Team*** earns bonus points (LP-SC5). During the Endgame, size limits are removed so this is a great time to make the attempt. Both ***Robots*** must be on the starting side of the ***Competition Field*** during the lift.

> ✔️ **Tip for your *Team***
> Practice your lift mechanism before competition day. Lift attempts during a real ***Match*** often take longer than expected, and you only have 20 seconds of ***Endgame***.

LP-E3 Lift attempts are your own responsibility

It is the responsibility of the ***Team*** to prevent ***Robots*** from tipping over or becoming damaged while attempting a lift. Design your lift with stability in mind. The ***Head Referee*** will not grant a ***Match*** replay because a lift attempt went wrong.



LP-E4 ***Robot* operation must stop at the end of the *Match***

Robots may not be operated, or coded to operate, past the end of the ***Match*** (timer reaches 0:00).

> ✔ **Tip for your *Team***
> Place your controller on the ground when the ***Match*** ends.

7 — *Robot* Rules

These rules define what makes a ***TEAM Ready*** SRC ***Robot***. Read them before you start building. All ***Robots*** must pass inspection at each Event before they can compete.

LP-R1 Each *Team* brings up to two *Robots* to a *Match*

Your ***Team*** competes with up to 2 ***Robots***. Both ***Robots*** must pass inspection. If one ***Robot*** fails inspection, it cannot compete until the issue is fixed.

- ***Teams*** may make changes to ***Robots*** between ***Matches***.
- You cannot switch to a different ***Robot*** once it passes inspection unless the new ***Robot*** also passes inspection.
- Each ***Team***'s ***Robots*** must be unique to that ***Team*** — two ***Teams*** may not share a ***Robot***.

LP-R2 *Robots* must be designed, built, coded, and operated by *Students*

Your ***Robot*** must be designed, built, coded, and operated by the ***Students*** in your ***Team***. See LP-G1 and LP-G3 for the full Student-Powered standard.

LP-R3 *Robots* must pass inspection before competing

Before your first ***Match*** at any Event, your ***Robots*** must go through ***Robot*** Inspection. This checks that your ***Robots*** meet all the rules in this Manual. A ***Robot*** that doesn't pass inspection can't compete until the issue is corrected.

- The ***Head Referee*** can request a spot inspection at any point during the event.
- Refusing a spot inspection results in ***Disqualification***.
- Passing inspection at an event does not guarantee a ***Robot*** passes inspection at other events.

LP-R4 *Robots* must stay within inspection size until *Endgame*

During the entirety of the Match, not including the Endgame, your Robot must fit within a 20 pitch × 16 pitch (500 mm × 400 mm) rectangle when measured by its length and width, and no taller than 22 pitch (550mm). Diagonal measurements are not considered.

This is checked using the official Inspection Sizing Tool at the event.

> ✔ **Tip for your *Team***
> Measure your ***Robot*** at home before the Event. It's much easier to fix a size issue in your lab or classroom than in an inspection line at an Event.

LP-R5 Use the Sphero Blueprint Swerve Drive *Robot* as your base

All competing ***Robots*** must use the Sphero Blueprint Swerve Drive ***Robot*** as their drive and control base. ***Students*** can build additional mechanisms on top, but the drive system, control board, and battery must stay unmodified.

- Additional mechanisms (launchers, hoppers, lift arms, etc.) must be designed and built by ***Students***.
- Mounting additional parts to the Sphero Blueprint Swerve Drive ***Robot*** is allowed — just don't modify the drive base itself.

LP-R6 Power sources

The standard Sphero Blueprint Swerve Drive ***Robot*** battery is your only power source. Your ***Team*** may not use any other power source for SRC.

LP-R7 Electronic & Motors

The only allowed electronics and motors are Sphero Blueprint Robotics Electronics. These include:

- Blueprint Robotics High-Speed Motor
- Blueprint Robotics High-Torque Motor
- Blueprint Robotics Beam Break Sensor
- Blueprint Robotics Distance Sensor
- Magnetic Proximity Switch

LP-R8 What's not allowed on a *Robot*

The following are never allowed on a competing ***Robot***:

- Anything that could damage ***Field Elements***, ***Balls***, or other ***Robots***.
- Anything that could easily snag or entangle with another ***Robot*** in a dangerous way.
- Exposed sharp edges or fasteners.
- Sound-producing devices used to distract opponents during a ***Match***.
- Modifications to the Sphero Blueprint Swerve Drive system, control board, or electronics.

LP-R9 3D Printing is allowed

- 3D printed parts are allowed on your ***Robot*** in SRC. See LP-G1 and LP-G3 for the Student-Powered requirements. See Appendix A for full 3D printing details and rules.

8 — Tech Trials

Tech Trials are additional challenges run separately from the ***Matches***. They don't affect your ***Match*** results, but they can possibly factor into event awards and ***Championship Event*** qualification. Think of them as a chance to show off skills beyond ***Team*** versus ***Team*** competition.

There are two (2) types of ***Tech Trials*** at an event – ***Operating Tech Trials*** and ***Coding Tech Trials***.

LP-T1 *Tech Trial* score

A ***Team***'s ***Tech Trial*** score is calculated by adding the top ***Operating Tech Trial*** score and the top ***Coding Tech Trial***. A ***Team***'s ***Tech Trial*** score at a Qualifying Event is a ***Championship Event*** advancement criteria.

- If ***Teams*** have a tied ***Tech Trial*** score, then they will be ranked by the following ordered criteria:
  - Highest ***Coding Tech Trial*** Score
  - 2nd Highest ***Coding Tech Trial*** Score
  - Highest ***Tech Trial*** Stop Time from a Team's Highest ***Coding Tech Trial***
  - Highest ***Operating Tech Trial*** Score
  - 2nd Highest ***Operating Tech Trial*** Score
  - Highest ***Tech Trial*** Stop Time from a Team's Highest ***Operating Tech Trial***
  - 3rd Highest ***Coding Tech Trial*** Score
  - 3rd Highest ***Operating Tech Trial*** Score
  - If the tie still is not broken, the Event Host may choose to allow Teams to have one more deciding ***Coding Tech Trial***, or both Teams may be declared to have the same rank.

LP-T2 *Tech Trial* count per event

A ***Team*** may attempt a maximum of three (3) ***Operating Tech Trial*** runs and a maximum of three (3) ***Coding Tech Trial*** runs at a single event.

LP-T3 *Trial Stop Time*

Teams that complete the ***Tech Trials*** before the 60 second timer is expired can indicate to the Scorekeeper that they are done early.

- Scorekeeper records the ***Trial Stop Time*** – the amount of time remaining in the ***Tech Trial*** rounded down to the nearest second after all action has stopped.
- It's helpful to discuss with the Scorekeeper before the ***Tech Trial*** starts to share if your ***Team*** is likely to end the ***Tech Trial*** early and agree upon a signal to let them know when to mark the ***Trial Stop Time.***
- Teams must score all balls on the opposite side of the field to end the ***Tech Trial*** early.
- If the ***Team*** utilizes the full 60 seconds in the ***Tech Trial***, then the ***Trial Stop Time*** is 0.

LP-T4 *Operating Tech Trial*

Can your ***Team*** clear the field? In this ***Tech Trial***, the ***Match Crew*** controls up to two (2) ***Robots*** and has 60 seconds to launch as many ***Balls*** as possible over the ***Dividing Wall***. There is no ***Endgame*** period for this ***Tech Trial*** as expansion is allowed throughout the entire ***Tech Trial***.

Setup	Details
Robots	Up to two (2) ***Robots***
Field Setup	54 Balls on the ***Competition Field*** + 6 ***Preload Balls*** touching the ***Robots*** per ***Team***. Standard ***Dividing Wall***.
Time	60 seconds, ***Match Crew*** control only. No ***Endgame*** period. Expansion allowed throughout the ***Tech Trial***. LP-M13 does not apply.
How to win	Get as many ***Balls*** from your side of the ***Competition Field*** to the opponent's side in 60 seconds and complete an optional lift. The ***Trial Stop Time*** will be used as a tie-breaker (see LP-T1).

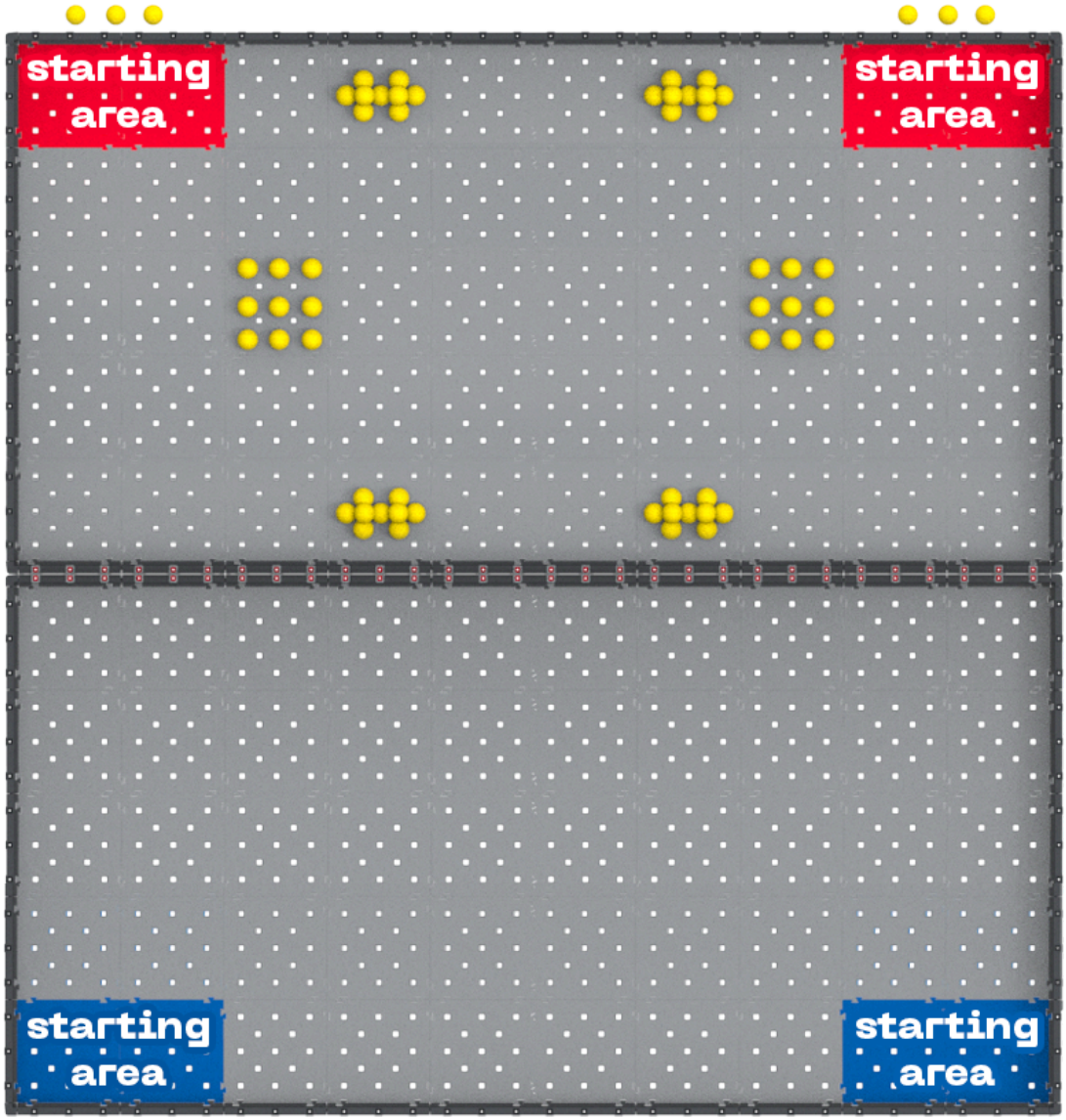
LP-T5 *Coding Tech Trial*

Can your ***Team*** do it with coding alone? In this ***Tech Trial***, two (2) ***Robots*** must complete the same task as the ***Operating Tech Trial*** — moving as many ***Balls*** from one side of the ***Competition Field*** to the other — but entirely without ***Match Crew*** member input. No controllers, no remote operation. The ***Robots*** run fully autonomous for 60 seconds. There is no ***Endgame*** period for this ***Tech Trial*** as expansion is allowed throughout the entire ***Tech Trial***.

Setup	Details
Robots	Up to two (2) ***Robots***
Field Setup	54 **Balls** on the ***Competition Field*** + 6 ***Preload Balls*** touching the ***Robots*** per ***Team***. Standard ***Dividing Wall***.
Time	60 seconds, autonomous only. No ***Match Crew*** control. No **Endgame** period. Expansion allowed throughout the ***Tech Trial***. LP-M13 does not apply.
How to win	Get as many ***Balls*** from your side of the ***Competition Field*** to the opponent's side in 60 seconds and complete an optional lift. The ***Trial Stop Time*** will be used as a tie-breaker (see LP-T1).

Tech Trials Field at a Glance

The ***Competition Field*** is made up of 100 square tiles (each 300mm x 300mm), giving a total playing surface of approximately 3m × 3m. A 50mm-wide ***Dividing Wall*** runs across the middle. Each ***Team*** starts their ***Robots*** in their own ***Starting Areas***. ***Balls*** are placed on specific floor tiles, resting in the Blueprint Connectors of the tile, and some are ***Preloaded*** in ***Robots***. ***Tech Trials*** can be played from either side of the ***Competition Field***.



9 — Event Schedule

This section explains the structure of a typical SRC event from start to finish. Whether you're a ***Student*** competing for the first time, a ***Team Coordinator*** preparing your ***Team***, or an Event Host running the day — this is your overview.

LP-E1 *Match* format

SRC Launch Party is played in a ***Team*** vs ***Team*** format. Each ***Team*** brings up to two (2) ***Robots*** and faces one (1) other ***Team***. The sequence of a standard SRC Launch Party ***Match*** from start to finish:

1. Both ***Robots*** are placed in their ***Starting Area***, touching both walls, and are ***TEAM Ready***.
2. ***Preload Balls*** (six (6) per ***Team***) are touching a ***Robot***.
3. The ***Head Referee*** confirms everything is set and starts the ***Match***.
4. ***Teams*** drive their ***Robots*** for 2 minutes, pushing and launching ***Balls*** over the ***Dividing Wall***.
5. ***Teams*** can attempt to lift one (1) ***Robot*** with the other ***Robot***.
6. At the 20-second mark, the ***Endgame*** begins – expansion limits are lifted.
7. At 0:00, all action stops. ***Balls*** and lifts are counted 5 seconds later once everything comes to rest.
8. The ***Team*** with the highest score wins.

LP-E2 Event day structure

A standard SRC Launch Party Event is organised into ***Heats***. Each ***Heat*** is a set of ***Matches*** (typically two ***Matches*** per ***Team*** per ***Heat***) that are run at an event. The event schedule is updated between ***Heats*** based on ***WLT Points*** of the ***Teams***. A set of ***Tech Trials*** is concurrently run with the ***Matches***.

Example 20 ***Team*** Event:

Phase	What happens
Heat Opens	10 ***Team***-vs-***Team Matches*** are completed. ***Teams*** 1–10 compete in two (2) ***Team***-vs-***Team Matches*** while ***Teams*** 11–20 complete their first round of ***Tech Trials***.
Mid-Heat Round	A second round of 10 ***Team***-vs-***Team Matches*** are completed. ***Teams*** 11–20 compete in the ***Team***-vs-***Team Matches*** while ***Teams*** 1–10 complete their first round of ***Tech Trials***.
Break	A short break between ***Heats***. ***Event*** staff generate the ***Match*** schedule to pair ***Teams*** for the next ***Heat*** based on win/loss record.
Repeat	The same structure repeats for each subsequent ***Heat***. Pairings update after every ***Heat*** to reflect ***WLT Points***.

Finals bracket	After all ***Heats*** are complete, the top-ranked ***Teams*** advance to the finals bracket. Bracket size depends on the number of ***Teams*** at the ***Event***. (See LP-E4).

LP-E3 *Match* scheduling

After each ***Heat***, the event management software generates the next ***Heat*** schedule:

- ***Teams*** are randomly matched against other ***Teams*** for the first Heat, then ***Teams*** are matched against other ***Teams*** with similar total ***WLT Points*** for the remaining ***Heats***. Events that have an odd number of ***Teams*** may result in ***Teams*** playing an extra ***Match*** that will not count towards their ranking.These ***Matches*** will be noted in the ***Match*** schedule.
- Rematches are avoided wherever possible
- No ***Team*** is eliminated during Qualifying ***Matches*** — every ***Team*** competes in every Heat
- ***WLT Points*** points are calculated by:
  - Win = 3 ***WLT Points***
  - Tie = 1 ***WLT Point***
  - Loss = 0 ***WLT Points***

LP-E4 Finals bracket

After all ***Heats*** are complete, the ***Teams*** with the most ***WLP Points*** advance to the finals bracket.

- Finals bracket size depends on how many ***Teams*** are at the event:
  - 16+ ***Teams*** at the event = 16 ***Team*** finals bracket
  - 12-15 ***Teams*** at the event = 12 ***Team*** finals bracket
  - Less than 12 ***Teams*** at the event = 8 ***Team*** finals bracket
- For events that use a 12 Team finals bracket or have fewer than 8 Teams, the corresponding brackets will be used with byes awarded when there is no applicable team.
- If there is a ***Match*** tie during the finals bracket, the ***Match*** is replayed until a winning ***Team*** is determined.
- ***Teams*** are ranked throughout the event to determine the finals bracket seeding order starting with the sum of the ***Team's WLT Points***, and ties are broken by the remaining criteria in the order below:
  - Highest ***Match*** score
  - Second-highest ***Match*** score
  - ***Tech Trial*** score (See LP-T1)
  - Third-highest ***Match*** score
  - Randomized event system placement
- Finals bracket matches are single elimination and the winning ***Team*** advances to the next round. If there is a tie, then the ***Match*** will be replayed until there is a winner. The ***Team*** that wins the Finals Match will be the Event Champion.

LP-E5 Referee Rulings

The ***Head Referee*** has the final ruling on all gameplay and ***Robot*** rulings during an event. If the ***Match Crew*** wants to question a call, they must stay in the boundary area and wait to speak directly with the ***Head Referee*** after the ***Match***. Adults may not approach referees at any time during the event.

LP-E6 Awards

At Qualifying Events and Championship Events, at minimum the following awards are given:

- Event Champion Award — the ***Team*** that wins the last finals bracket ***Match***
- Tech Trial Champion Award — the ***Team*** with the highest Tech ***Trials*** score

Events can also offer these awards:

- Event Finalist Award – the runner-up ***Team*** in the last finals bracket ***Match***
- Event Semifinalist Award – the two ***Teams*** that successfully advanced to the semifinals ***Match*** in the finals bracket but did not move on to the final ***Match***
- Tech Trial 2nd Place Award – the ***Team*** with the second highest ***Tech Trials*** score
- Tech Trial 3rd Place Award – the ***Team*** with the third highest Tech ***Trials*** score

10 — Championship Event advancement criteria

The ***Champion Event*** occurs at the end of the season. ***Teams*** must qualify to the ***Champion Event*** based on the following advancement criteria. The criteria is subject to the ***Championship Event*** capacity.

LP-CE1 Champion Event advancement criteria

Teams may receive an invitation to a ***Championship Event*** in one of the following ways:

1. Earn a qualifying award at a ***Qualifying Event***.
2. Receive an invitation from the Global Leaderboard if ***Championship Event*** spots remain available.
3. Receive an invitation from the ***Championship Event*** waitlist if ***Championship Event*** spots still remain available.

Depending on **Championship Event** capacity and the number of ***Qualifying Events*** within a state or region, one or more of the following awards may qualify teams for a Championship Event:

- Event Champion Award*
- Tech Trial Champion Award*
- Event Finalist Award
- Tech Trial 2nd Place Award
- Event Semifinalist Award (2 Teams)

*The Event Champion Award and the Tech Trial Champion Award are guaranteed to qualify at ***In-Person Events*** when the ***Qualifying Event*** meets the minimum registered team requirement. Additional awards may qualify to a Championship Event at the discretion of TEAM Alliance.

Live Remote Events that have teams from multiple event regions may only upload results to the Global Leaderboard.

Any remaining ***Championship Event*** invitations are distributed to ***Teams*** that have yet qualified. Invitations are based on the highest ***Tech Trials*** scores in the state or region until the event is full.

Championship Events must be posted by May 15, 2027.

LP-CE2 Global Leaderboard Criteria

Teams will be ranked globally based on their ***Tech Trial*** scores from ***Prequalifying Events***, ***Qualifying Events*** and ***Championship Events*** that upload results to myTEAMevents.org. Teams will be ranked based on the following ordered criteria:

1. Highest ***Tech Trial*** score from a single event.
2. Highest ***Coding Tech Trial*** score from any event.
3. 2nd Highest ***Coding Tech Trial*** Score from any event.
4. Highest ***Coding Tech Trial*** Stop Time from the ***Coding Tech Trial*** for point 1.
5. Highest ***Operating Tech Trial*** score from any event.
6. 2nd Highest ***Operating Tech Trial*** score from any event.
7. Highest ***Operating Tech Trial*** Stop Time from the ***Operating Tech Trial*** for point 1.
8. 3rd Highest ***Coding Tech Trial*** score from any event.
9. 3rd Highest ***Operating Tech Trial*** score from any event.

10. If the tie is still not broken, the system will randomly assign the rank.

Global Leaderboard Deadline: Results must be uploaded to the Global Leaderboard by May 17, 2027, to be included in TEAM Alliance and Sphero's 2026–2027 Global Leaderboard recognition. Events held after this date may still upload results, but those scores will not be considered for global recognition.

Appendix A — 3D Printing

Teams may use an unlimited number of 3D printed parts, provided those parts meet the following requirements and all other applicable Robot rules.

Student-Powered requirements apply. See LP-G1 and LP-G3.

LP-3DP-A Permitted Materials and Printing Methods

Parts must be produced using fused deposition modeling (FDM), also known as fused filament fabrication (FFF), using unreinforced plastic or rubber-like filament, such as PLA, PETG, ABS, ASA, or TPU.

Metal parts and parts produced using resin printing, stereolithography (SLA), selective laser sintering (SLS), or Multi Jet Fusion (MJF) are not permitted. FDM/FFF filaments that contain particle or fiber reinforcements (chopped or continuous), including glass-fiber and carbon-fiber, are not permitted.

LP-3DP-B Permitted Connections

3D printed parts may be attached to other 3D printed parts or to Blueprint parts only using the following approved, unmodified, Sphero-manufactured Blueprint components:

- Blueprint Connectors
- Blueprint Shafts with Shaft Collars
- Blueprint Hinge Connectors
- Blueprint Turntable Connectors
- Blueprint Locking Connectors
- Blueprint Shaft Bearings
- Blueprint Anchors
- Blueprint Cardboard Connectors

A 3D printed part may include holes or other geometry that interfaces with these approved components. Each connection must be secured using an approved component listed above.

⚠ **Connectors may not be 3D printed.**
Printed copies of Blueprint connectors and custom printed features that replace an approved connector are not permitted.

Why this rule exists:
3D printed connectors do not provide as reliable of a connection for Blueprint parts as the injection molded versions provided in the Sphero Blueprint Robotics Kits.

LP-3DP-C Prohibited Attachment Methods

Other attachment methods are not permitted, including but not limited to:

- Glue, epoxy, solvents, tape, or other adhesives.
- Direct snap-fit, press-fit, friction-fit, or interlocking connections between 3D printed parts.



- Non-Blueprint screws, bolts, nuts, washers, threaded inserts, pins, zip ties, or hook-and-loop fasteners.
  NOTE: Teams may not disassemble Blueprint components to obtain internal hardware for attaching 3D printed parts.

LP-3DP-D Permitted Post Processing

The following post-processing is permitted:

- Removing printing supports, brims, and rafts.
- Basic trimming, deburring, or sanding to remove printing artifacts and sharp edges.
- Reaming an existing nominal 5 mm shaft hole to improve shaft fit or movement.

All other post-processing is prohibited, including annealing, boiling, solvent smoothing or bonding, and processes that remove a plastic binder to produce a metal part.

✔ **Why this rule exists**
We want to keep 3D printing easy and approachable for all **Students**, which is why we are limiting it to common materials and limited post-processing.



Quick Reference — All Rules at a Glance

Use this table to quickly find any rule in the manual.

Section 2 – Scoring Rules	
LP-SC1	Scoring is calculated 5 seconds after the ***Match*** ends
LP-SC2	Each ***Ball*** on an opponent's ***Competition Field*** Tile = +1 point
LP-SC3	Each ***Ball*** in an opponent's ***Robot*** = +2 point
LP-SC4	***Balls*** that leave the ***Competition Field*** are returned to a ***Starting Area*** of the ***Team*** that launched them
LP-SC5	Lifting earns points: ***Partial Lift*** = +5, ***Full Lift*** = +15 points
Section 3 – Safety Rules	
LP-S1	Keep it safe at all times
LP-S2	***Students*** need a ***Team Coordinator*** present
LP-S3	Stay behind the ***Competition Field*** boundary during ***Matches***
LP-S4	Wear safety glasses at the ***Competition Field***
LP-S5	Waivers must be on file
Section 4 – How Everyone Should Act	
LP-G1	Sphero Robotics Competitions are Student-Powered
LP-G2	Code of Conduct – Treat everyone with respect
LP-G3	Your work should reflect your ***Team***'s own abilities
LP-G4	One ***Team*** per ***Student*** per season
LP-G5	Use good judgment
Section 5 – *Match* Rules	
LP-M1	How to set up for a ***Match***
LP-M2	Preloading ***Balls*** before the ***Match***
LP-M3	***Match Crew*** must stay behind the ***Competition Field*** boundary
LP-M4	***Matches*** are for up to two ***Robots*** per ***Team***
LP-M5	No holding an opposing ***Robot*** for more than a 5-count
LP-M6	Don't try to damage other ***Robots***
LP-M7	You can't force your opponent into a penalty
LP-M8	Keep your ***Robot*** in one piece
LP-M9	Don't anchor your ***Robot*** to the field
LP-M10	There is no ***Robot*** possession limit on ***Balls***



LP-M11	***Robots*** stay on their own side of the ***Competition Field***
LP-M12	***Robot*** expansion limits during the ***Match***
LP-M13	***Balls*** that leave the ***Competition Field*** get put back
Section 6 – *Endgame* Rules	
LP-E1	Size limits are removed during the ***Endgame***
LP-E2	One ***Robot*** per ***Team*** can attempt a lift
LP-E3	Lift attempts are your own responsibility
LP-E4	***Robot*** operation must stop at the end of the ***Match***
Section 7 – *Robot* Rules	
LP-R1	Each ***Team*** brings up to two ***Robots*** to a ***Match***
LP-R2	***Robots*** must be designed, built, coded, and operated by ***Students***
LP-R3	***Robots*** must pass inspection before competing
LP-R4	***Robots*** must stay within inspection size until ***Endgame***
LP-R5	Use the Sphero Blueprint Swerve Drive ***Robot*** as your base
LP-R6	Power sources rules
LP-R7	Electronic & Motors
LP-R8	What's not allowed on a ***Robot***
LP-R9	3D Printing is allowed
Section 8 – *Tech Trials*	
LP-T1	***Tech Trial*** score calculation
LP-T2	***Tech Trial*** count per event
LP-T3	***Trial Stop Time***
LP-T4	***Operating Tech Trial***
LP-T5	***Coding Tech Trial***
Section 9 – Event Schedule	
LP-E1	***Match*** format
LP-E2	Event day structure
LP-E3	***Match*** scheduling
LP-E4	Finals bracket
LP-E5	Referee Rulings
LP-E6	Awards
Section 10 – Championship Event advancement criteria	
LP-CE1	Championship Event advancement criteria
LP-CE2	Global Leaderboard Criteria
Appendix A – 3D Printing	
LP-3DP-A	Permitted Materials and Printing Methods

LP-3DP-B	Permitted Connections
LP-3DP-C	Prohibited Attachment Methods
LP-3DP-D	Permitted Post Processing