



TSA VEX Robotics Competition Referee's Guide

In robotics competitions, as in sports, game rules must be enforced, and time and scoring must be overseen. In the TSA VEX Robotics Competition these responsibilities fall to the referee.

Download the *Swept Away* Game Manual at: www.vexrobotics.com/tsa/

The primary responsibilities of the referee in the TSA VEX Robotics Competition are:

1. Ensure that the field is correctly set up for each match.
2. Start and stop the matches, and keep track of time.
3. Enforce the match rules.
4. Tally the score at the end of matches or when a team is **SWEPT AWAY**.

Field Setup

The "Field Setup" section of the *Swept Away* manual describes exactly how the field should be set up for each match. Prior to starting each match verify that 1) all balls are in the correct location and 2) robots are in a legal starting configuration. After each match is finished and scores have been tallied and verified, have a designated volunteer reset the field to its starting configuration.

Tips:

- Competing robots must measure 12" or under. Many teams will expand legally above this height during a match. Keep a 12" ruler with you at the field to quickly verify that teams are compliant.
- Robots may not touch any balls prior to the start signal of a match.
- Use the mounting holes on the field as a guideline to determine the correct starting spot for the balls.

Starting and stopping a match and keeping time

All matches consist of 2:00 minutes of human operators driving robots. Teams start and stop their robots at the signal of the referee. The steps below describe how matches should be started and stopped.

1. Teams place their robots on the field.
2. The referee verifies that the starting position of the balls and robots is rule compliant.
3. Teams hold their transmitters so that the controls are facing outward, and the referee can see that no buttons/joysticks are being touched.
4. While holding a stopwatch or watching a clock, the referee counts down "3, 2, 1, Go!"
5. The 2:00 minute time period begins on "Go" and teams may now control their robots.
6. Give the teams a warning with 1:00 and 0:30 left in the match. With 0:05 remaining the referee counts down "5, 4, 3, 2, 1, End of Match!!!"
7. Once the referee calls "End of Match" teams must immediately stop controlling their robots, and hold their transmitters facing outward.

Tip:

- On occasion, some teams don't stop controlling their robots when the referee calls "End of Match." Any balls scored by a robot after time has expired should not be counted.

Enforcing Rules

The rules of *Swept Away* are designed to minimize the impact of the referee. There are very few judgment calls required and no typical penalties. The job of the referee is to ensure the game is played as prescribed by the rules. The following tips will help the referee enforce the rules and handle common situations.

- If any ball goes outside the field, either through accident or intention, it must be returned to its prior approximate location in a prompt manner.
- Robots may not intentionally touch the ground on the opposite side of the field.
- Accidental contact on the opposite side of the field may occur when a robot protrudes through a slot or reaches over the wall. This is legal behavior and, therefore, allowed.
- If a team maneuvers its robot to intentionally touch the ground on the opposite side of the field (i.e., drives to the other side of the field) it should automatically receive a loss for the match and zero points. The team's opponent will be awarded a win.
- Any team that intentionally damages the field, balls or an opponent's robot should automatically receive a loss for the match and zero points. The team's opponent will be awarded a win. When enforcing this rule, the referee should err on the side of caution. The action must be clearly intentional and egregious.

Scoring Matches

When a *Swept Away* match is over, the referee should tally the score and record it on the score sheet (attached; make multiple copies for your event). To tally the score, count the number of legally scored soccer ball and footballs on the field, as well as each soccer ball in a goal. The "Match Scoring" section of the manual describes how to determine if a ball is legally scored.


Tips:


- Balls can only be on one side of the field. If it is not obvious which side the ball is on, it counts for neither side.
- For a soccer ball to be counted as being in a goal it only needs to "break the plane" of the goal. This means
 - Balls can be above the goal
 - Balls can hang over the edge of the goal
 - Balls can even be scored in more than one goal
- Footballs do not earn additional points for being in a goal
- Soccer balls that are scored in goals do not earn extra points for being on the other side of the field (you can get points for balls being in a goal, or for them being on one side of the field, but not for both.)
- Scoring takes place once all objects come to rest.

Record the number of legally scored balls in the appropriate boxes on the scoring card. (See Score Cards) Add the score for each team to determine the match winner. Update the standings grid and keep the score card in a safe place in case of disputes.

There is one rule in *Swept Away* that requires extra care on the part of the referee. This is the **SWEPT AWAY** rule, which is described in detail in the Scoring section of the manual. To summarize, a team is **SWEPT AWAY** if, at any point during the match, all balls that are not in a goal are located on one side of the field. Should this occur, the referee should stop the match and score it immediately. The team with all the balls on their side of the field automatically loses the match. This rule applies to balls contained within a robot. The referee must follow the match closely and watch for this scenario. Even if it only occurs for a split second, the match must be stopped.

TSA VEX Robotics Competition - Swept Away Match Score Card

| | | | |
|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------|---------------------------------------------------------|
|  MATCH NUMBER: | | Winner: | |
| Team 1: | | Team 2: | |
| Soccer Balls on Opposite side of the Wall: | <input style="width: 50px; height: 30px;" type="text"/> | x 1 = | <input style="width: 50px; height: 30px;" type="text"/> |
| | | | + |
| Soccer Balls in Opposite side Goal: | <input style="width: 50px; height: 30px;" type="text"/> | x 3 = | <input style="width: 50px; height: 30px;" type="text"/> |
| | | | + |
| Footballs on Opposite side of the Wall | <input style="width: 50px; height: 30px;" type="text"/> | x 3 = | <input style="width: 50px; height: 30px;" type="text"/> |
| | | | + |
| Team 1 | | = | <input style="width: 50px; height: 30px;" type="text"/> |
| TOTAL SCORE | | | |

| | | | |
|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------|---------------------------------------------------------|
|  MATCH NUMBER: | | Winner: | |
| Team 1: | | Team 2: | |
| Soccer Balls on Opposite side of the Wall: | <input style="width: 50px; height: 30px;" type="text"/> | x 1 = | <input style="width: 50px; height: 30px;" type="text"/> |
| | | | + |
| Soccer Balls in Opposite side Goal: | <input style="width: 50px; height: 30px;" type="text"/> | x 3 = | <input style="width: 50px; height: 30px;" type="text"/> |
| | | | + |
| Footballs on Opposite side of the Wall | <input style="width: 50px; height: 30px;" type="text"/> | x 3 = | <input style="width: 50px; height: 30px;" type="text"/> |
| | | | + |
| Team 1 | | = | <input style="width: 50px; height: 30px;" type="text"/> |
| TOTAL SCORE | | | |