B APPENDIX

The Robot Skills Challenge

Overview

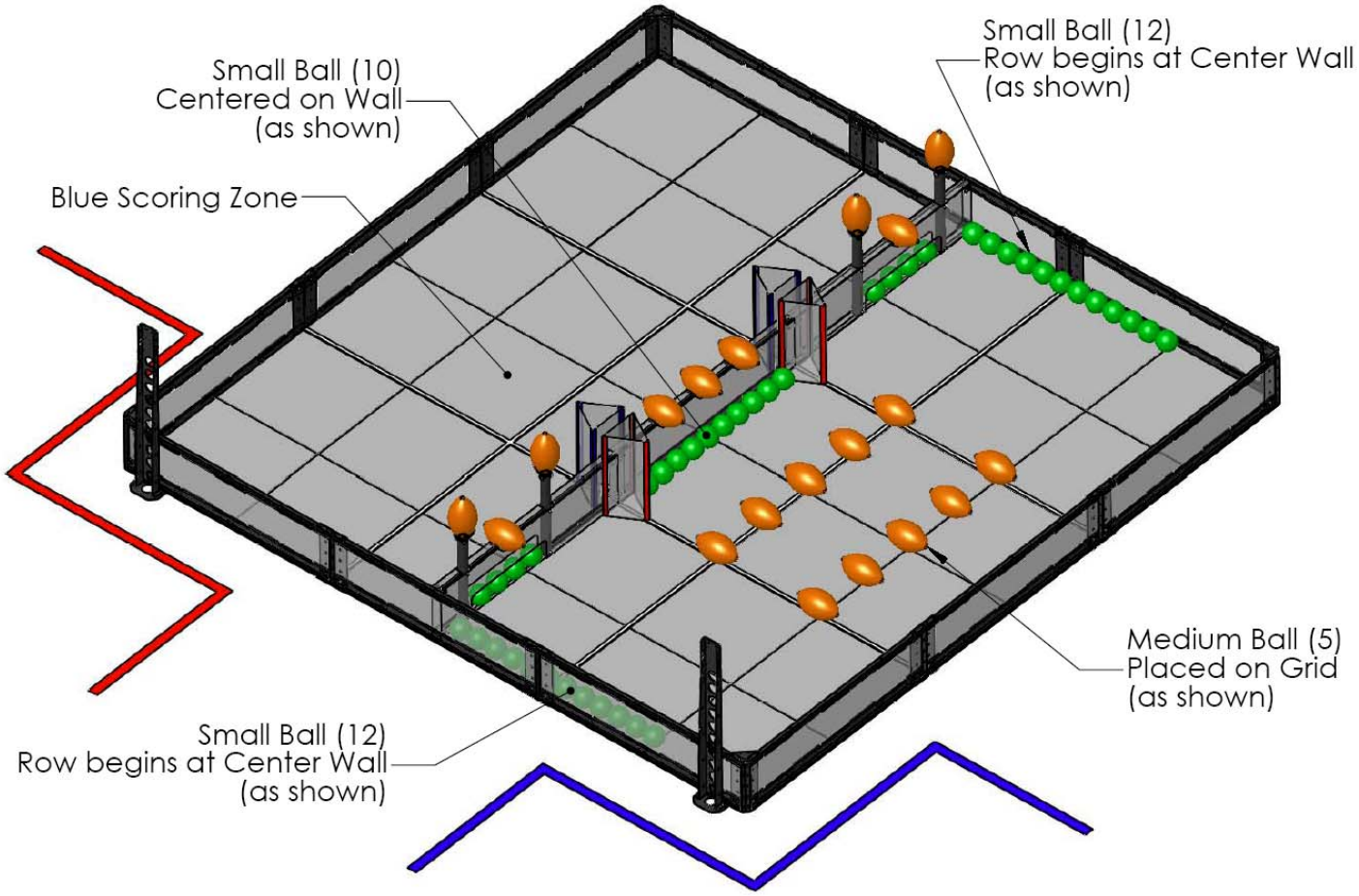
This section describes the Robot Skills Challenge of VEX Clean Sweep.

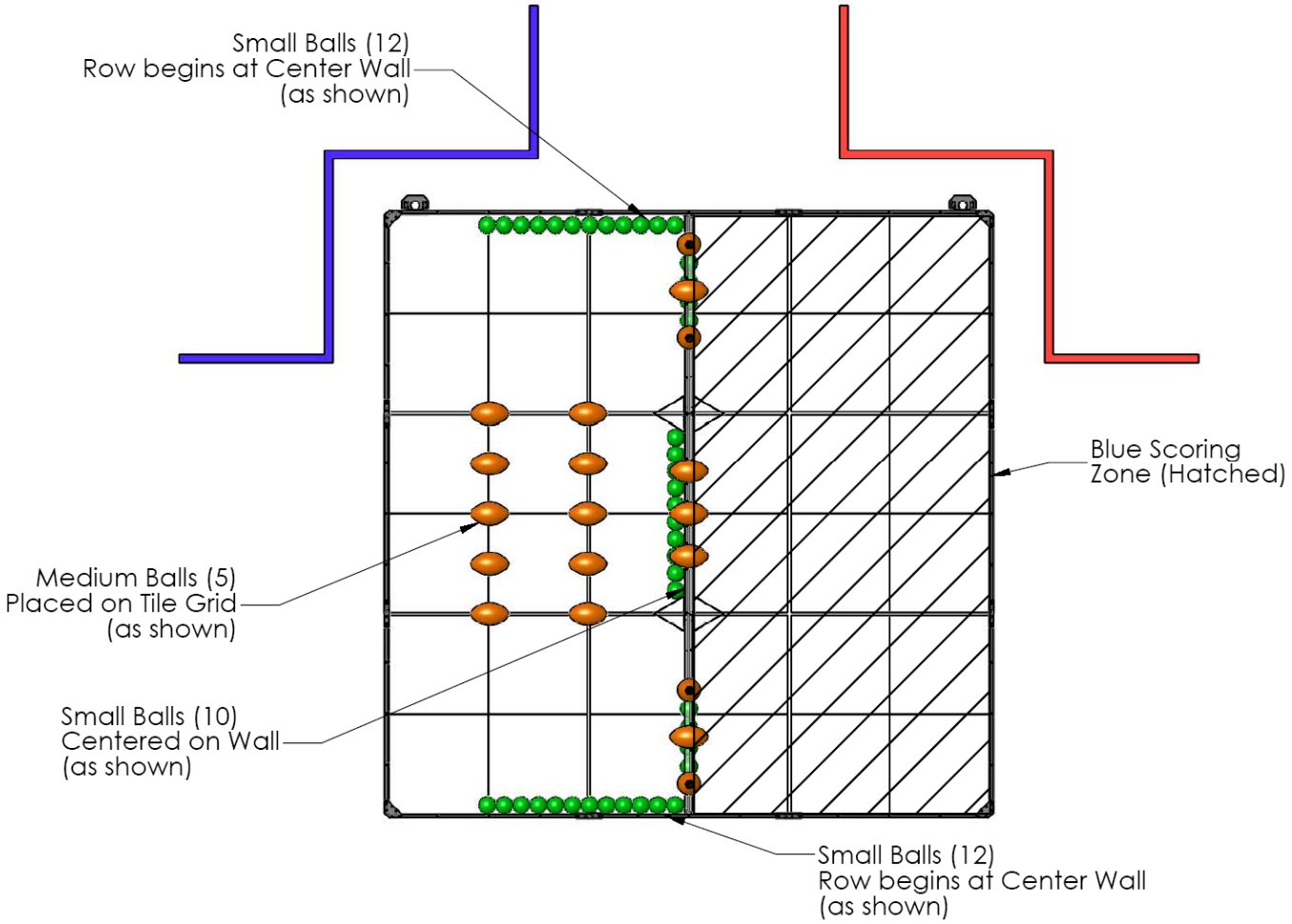
Please note that the Robot Skills Challenge may not be offered at all tournaments. Please check with your local event organizer, or www.robotevents.com for more information.

Robot Skills Challenge Description

In this challenge teams will compete in 1:00 long matches in an effort to score as many points as possible. These matches will be entirely driver controlled. The playing field will be set up identically to that of a normal VEX Clean Sweep tournament match, with the following exceptions

- The field will be setup on one side of the wall - balls will be placed in the red alliance scoring zone.
- All teams competing will be considered "BLUE", the rules will be enforced accordingly and the match will be scored as such.
- There will be an additional (22) small balls and an additional (5) medium balls placed on the field (as shown in the diagrams below).
- Only one robot is on the field with only one team competing at a time
    - This robot MUST be setup as though it were a "blue" robot (on the side of the field with the balls).





Note: The Programming Skills Challenge and The Robot Skills Challenge use the same field setup! (Please see "The Game" section of the manual for further information on field setup)

Robot Skills Challenge Definitions

Please note that all definitions from "The Game" section of the manual apply to the Robot Skills Challenge, unless otherwise specified.

Robot Skills Match – A *Robot Skills Match* consists of a 1:00 *driver controlled period*. There is no *autonomous period*.

Robot Skills Challenge Rules

Please note that all rules from "The Game" section of the manual apply to the Robot Skills Challenge, unless otherwise specified.

Robot Skills Challenge Scoring

- A *small ball* that is *scored* in the *blue alliance scoring zone* is worth one (1) point.
- A *small ball* that is *locked up* in a *blue goal* is worth three (3) points.
  - *Small balls* that are *locked up* are ONLY worth (3) points, these balls are not worth additional points for being *scored*.
- A *medium ball* that is *scored* in the *blue scoring zone* is worth five (5) points.
- A *large ball* that is *scored* in the *blue scoring zone* is worth ten (10) points.

VEX Clean Sweep Specific Robot Skills Challenge Rules

<SRSC1> Prior to the start of each *robot skills match*, each team will have four (4) *small balls* and one (1) *medium ball* available to preload into their robot.

a. A *ball* is considered to be legally preloaded if it is touching the *robot* and not touching any part of the playing field (including the foam field surface) or game objects.

<SRSC2> Each robot competing in the Robot Skills Challenge is considered to be "blue". All VEX Clean Sweep rules will be enforced accordingly, and the match will be scored as such.

<SPSC3> During the last thirty seconds (0:30) of each *robot skills match,* each team will have the opportunity to introduce a *large ball*. All VEX Clean Sweep rules regarding the introduction of the *large ball* are applicable

Robot Skills Challenge Format

- The Robot Skills Challenge is an optional event. Teams who do not compete will not be penalized in either the main tournament, or the Programming Skills Challenge.
- Teams will play *robot skills matches* on a "first come, first serve" basis.
- Teams will be guaranteed a minimum number of *robot skills matches*, to be determined by the event organizers
- Teams may also be limited to a maximum number of *robot skills matches*, to be determined by the event organizers

Robot Skills Challenge Rankings

- For each *robot skills match* teams are awarded a score based on the above scoring rules.
- Teams will be ranked based on their highest *robot skills match* score, with the team with the highest score being declared the Robot Skills Challenge Winner.
- In the case where two teams are tied for the highest score, the tie will be broken by looking at both teams next highest *robot skills match* score.
- If the tie cannot be broken (i.e. both teams have the exact same scores for each *robot skills match*), the next tie-breakers will be based on the balls scored in each team's highest scoring *robot skills match*. The tie-breakers are as follows (in order):
  - Number of Large Balls Scored
  - Number of Medium Balls Scored
  - Number of Small Balls Locked Up
- If the tie still isn't broken, both teams will be declared the winner.

Robot Skills Challenge Heads-Up Match

The following method will be used to determine the Robot Skills Challenge Winner at certain events, including the 2010 VEX Robotics World Championship.

- The top two teams from the Robot Skills Challenge Rankings will advance to a final heads-up match.
- Each team will perform one (1) *robot skills match*, with the 2nd place team performing first or with both teams performing simultaneously on separate fields.
- The team with the highest score in this heads-up match will be declared the Robot Skills Challenge Winner.