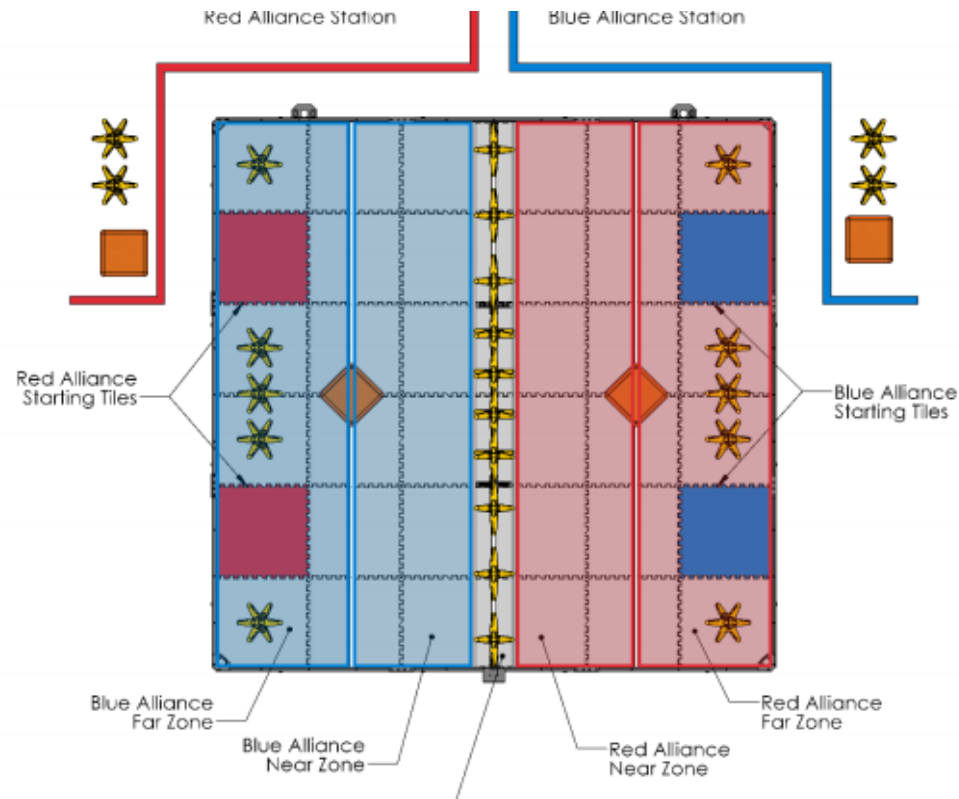




# VRC Starstruck Game Review

EP Summit 2016





## Field Layout

Driver Stations are in the same location as last season.

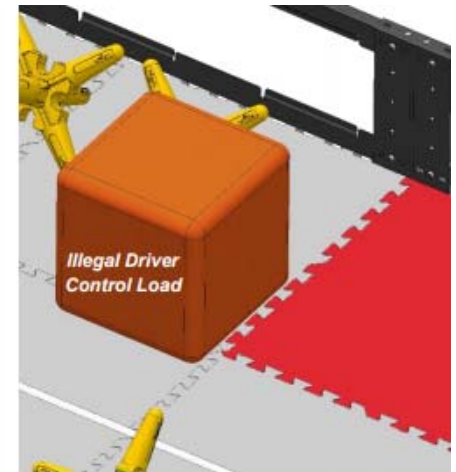
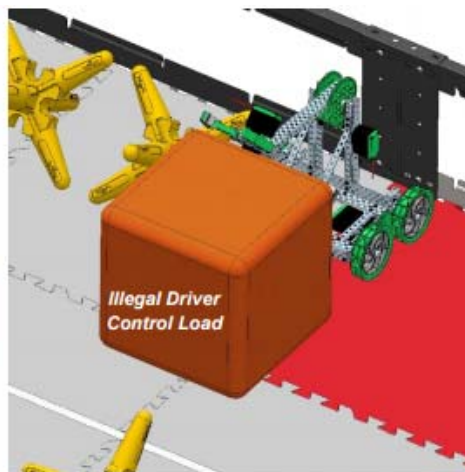
Red is always on the right when facing the audience

# Game Definitions

- Autonomous Bonus – 4 points
- Drive Team Members
  - Students ONLY, adults are no longer allowed to be in the Alliance Station
- Driver Control Loads
  - Two cubes (one per alliance) entered between 0:30 and 0:00 of match in the Alliance Starting Tile that is touching the Alliance Station or on a robot touching that tile.
  - If it is not entered, it will be scored in the Far Zone as if it were legally entered, and not moved.

# Driver Control Load <SG4>

- Cube is entered during the last 30 seconds
- Either
  - On the robot when the robot is touching the Alliance Station Starting Tile
  - Fully within the Alliance Station Starting Tile (not touching any gray tiles)



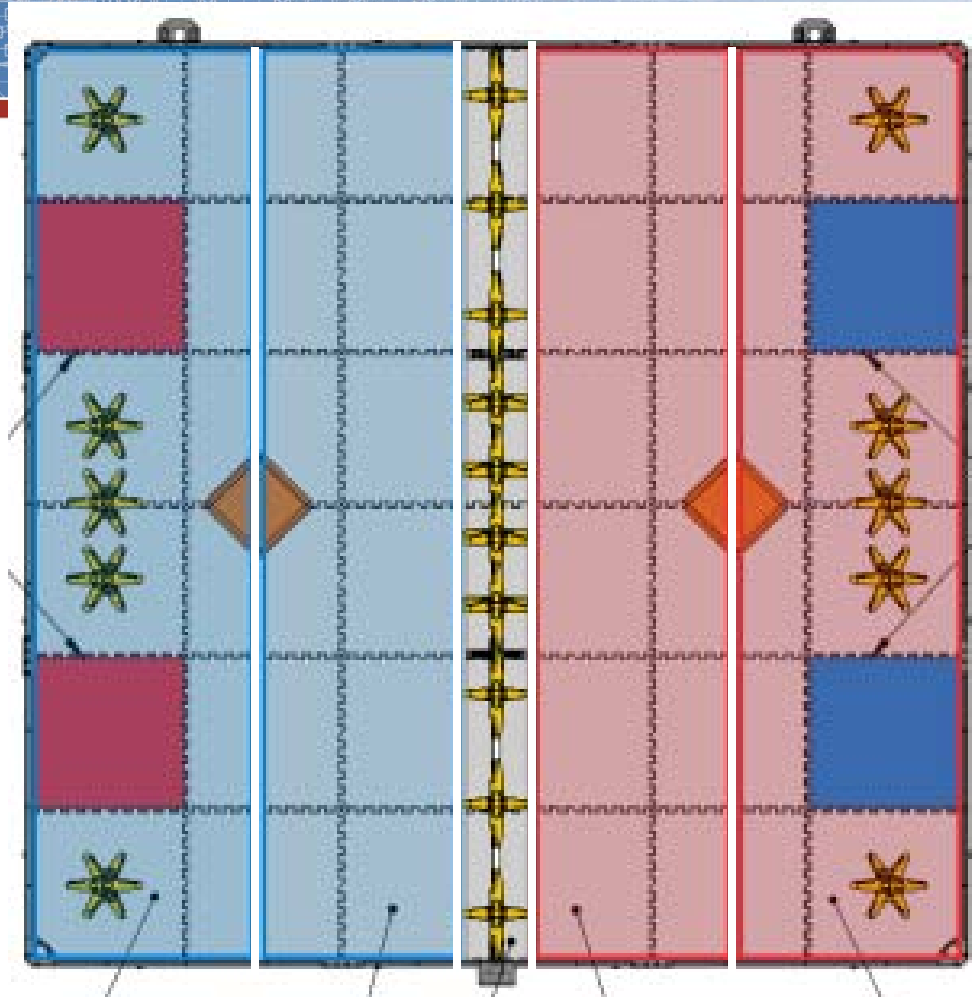
# Preloads

- 1 Star per robot
- Must be used
- If a no show, then Star is placed on Alliance Starting Tile
- Same 3 rules as last season
  - Must touch the robot
  - Must NOT touch a gray tile
  - Fully within the field perimeter

# Hanging – 1 robot per alliance

- High Hanging
  - Touching the Hanging Bar
  - Above (and not touching) the top plane of the field perimeter
  - It can be touching game elements, but those would be scored for the other alliance in the Far Zone
- Low Hanging
  - Touching the Hanging Bar
  - Not touching any foam field tiles





## Zones

Tape line between Far and Near Zones are part of the Far Zone

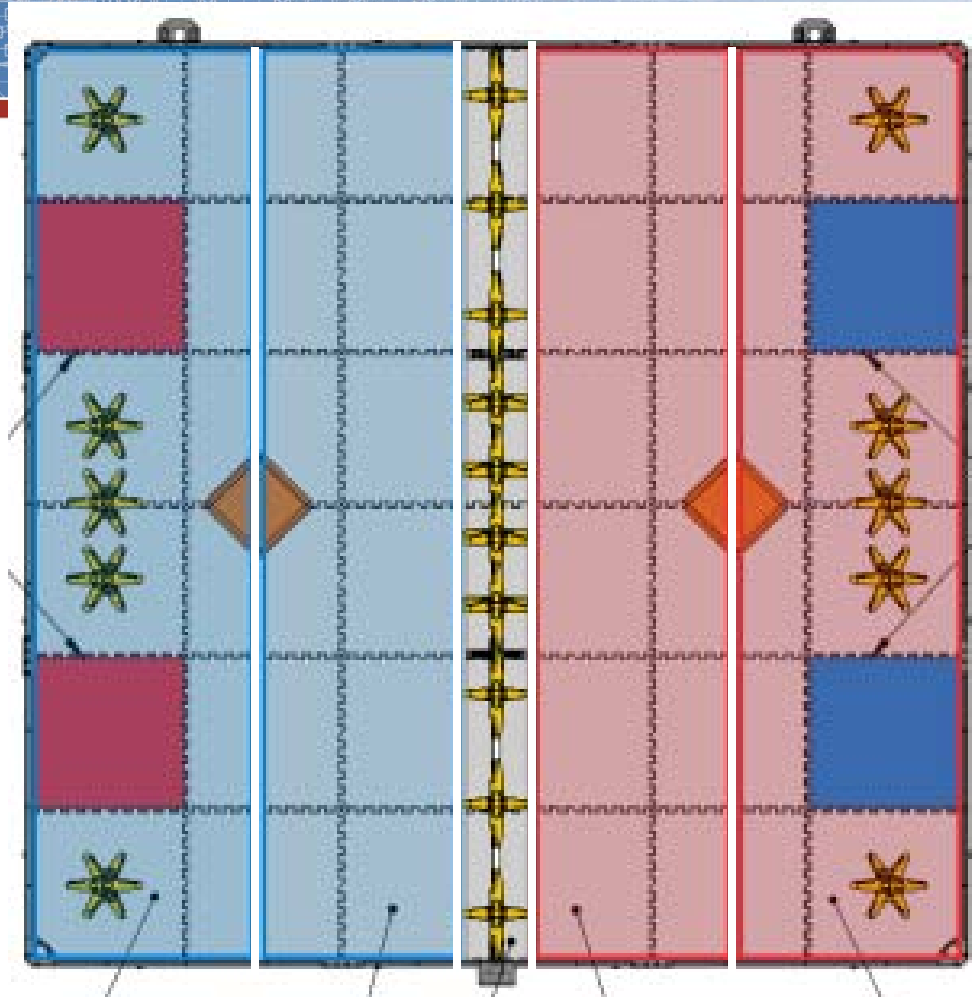
Tape line closest to Fence is not part of any zone

Fence is not part of any zone

# Scoring

- Scoring object (Star or Cube)
  - Just has to touch that zone (floor) to count in that zone.
  - Always scored in the higher value zone (Far Zone)
  - If not touching the floor, look to see what is supporting it, and whatever zone that is in, that is the zone the object is also in.
  - Fence does not count as a zone, and if opposing robots are supporting it, then it is also not scored
  - If the object is under the fence and touching both opposing Near zones, then it is not scored.





Stars	2	1	1	2
Cubes	4	2	2	4

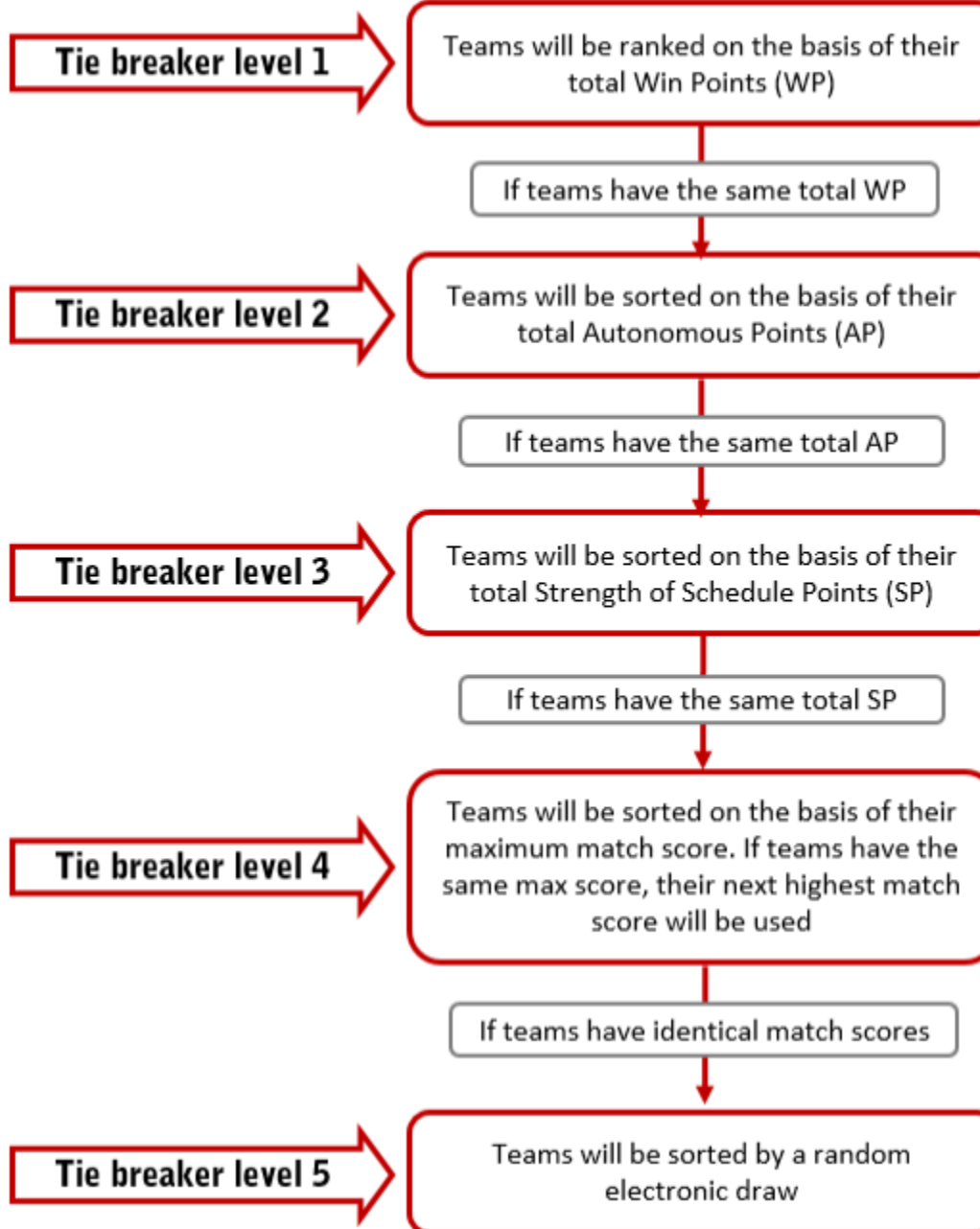
Autonomous Bonus	4
Low Hanging	4
High Hanging	12

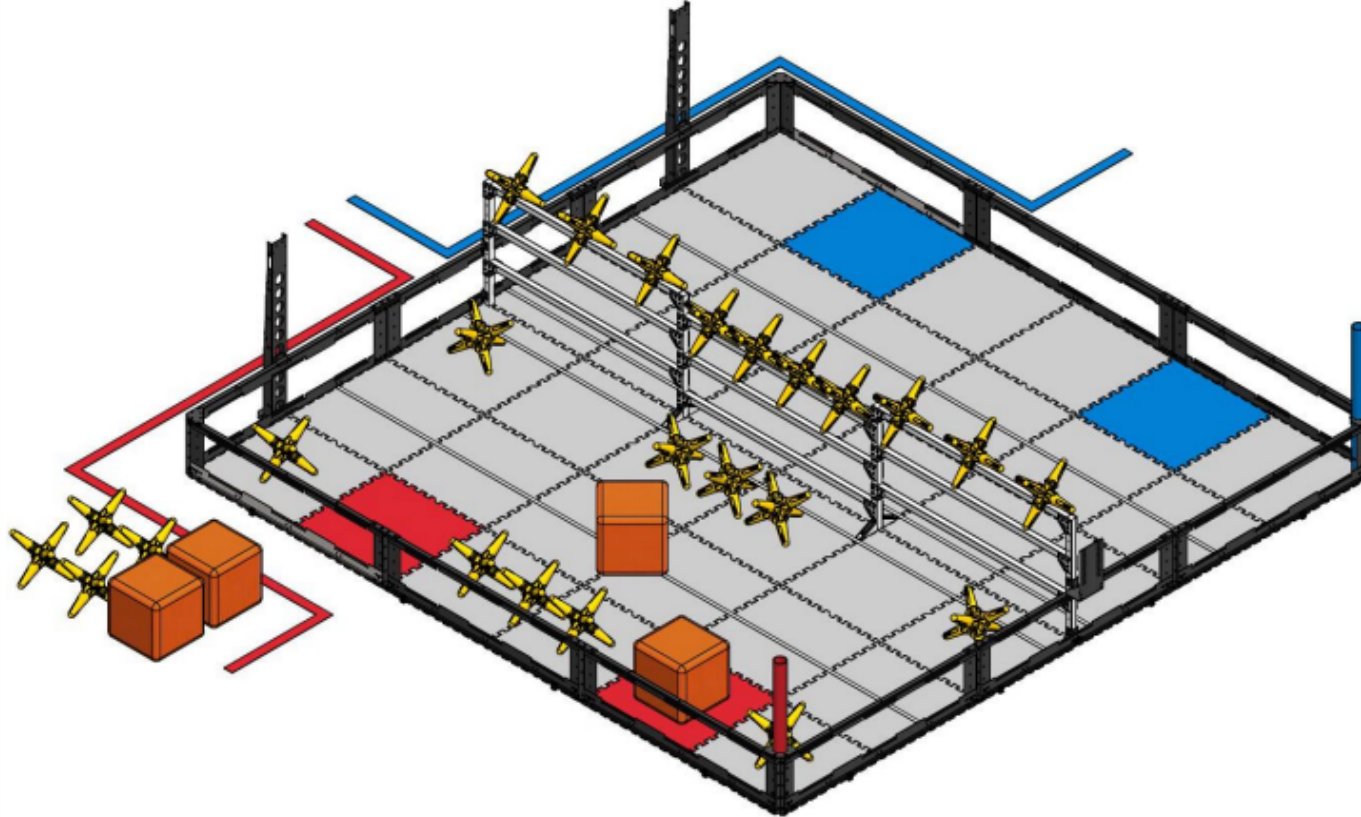
Maximum Score 80

## Game elements leaving field <G9>

- Are returned to the zone where the object last contacted a robot or a zone.
  - Robot throws the star across field and it goes out without touching anything.
    - Returned to where the robot threw it.
  - Robot throws the star and it hits the far zone and bounces out.
    - Returned to the Far zone where it bounced.
  - Robot throws the star and it hits another robot and bounces out
    - Returned to the zone where the second robot was located
  - Robot throws the star, it hits the field perimeter and bounces out
    - Returned to where the robot threw it

# Rankings and Tie Breakers





## Driving Skills and Programming Skills

- 1 Star must be used as a Preload
- 3 Stars and 2 Cubes are available as Skills Loads
- Skills loads are entered at any time either
  - On Alliance Station Alliance Starting Tile
  - On the Robot that is touching the Alliance Starting Tile

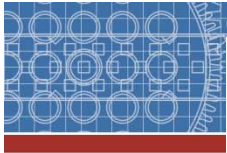


# VIQC Crossover Game Review

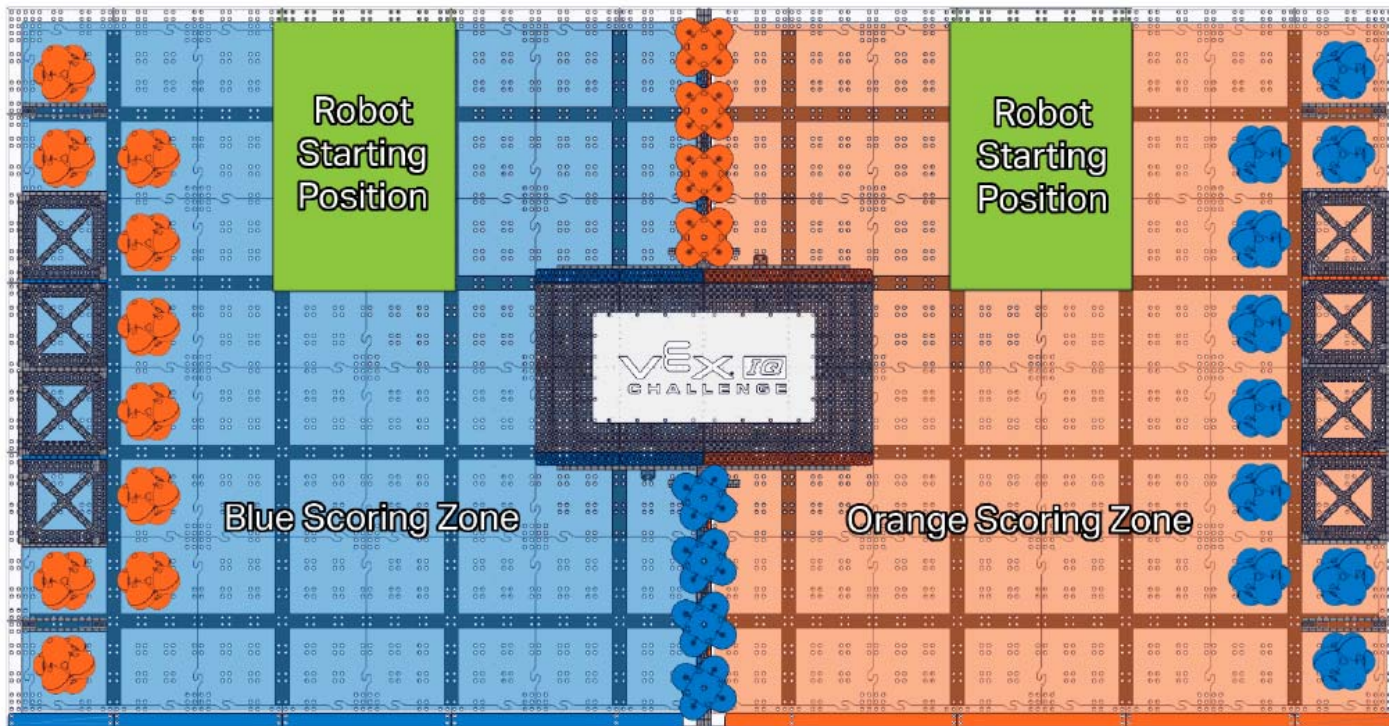
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# Driver Station



## Field Layout

- Long side of field faces the Audience
- Driver Station is opposite the Audience
- Teams may elect to start the Bridge tipped in either direction or to leave balanced. If the teams do not make a decision, it will start the Match Balanced.

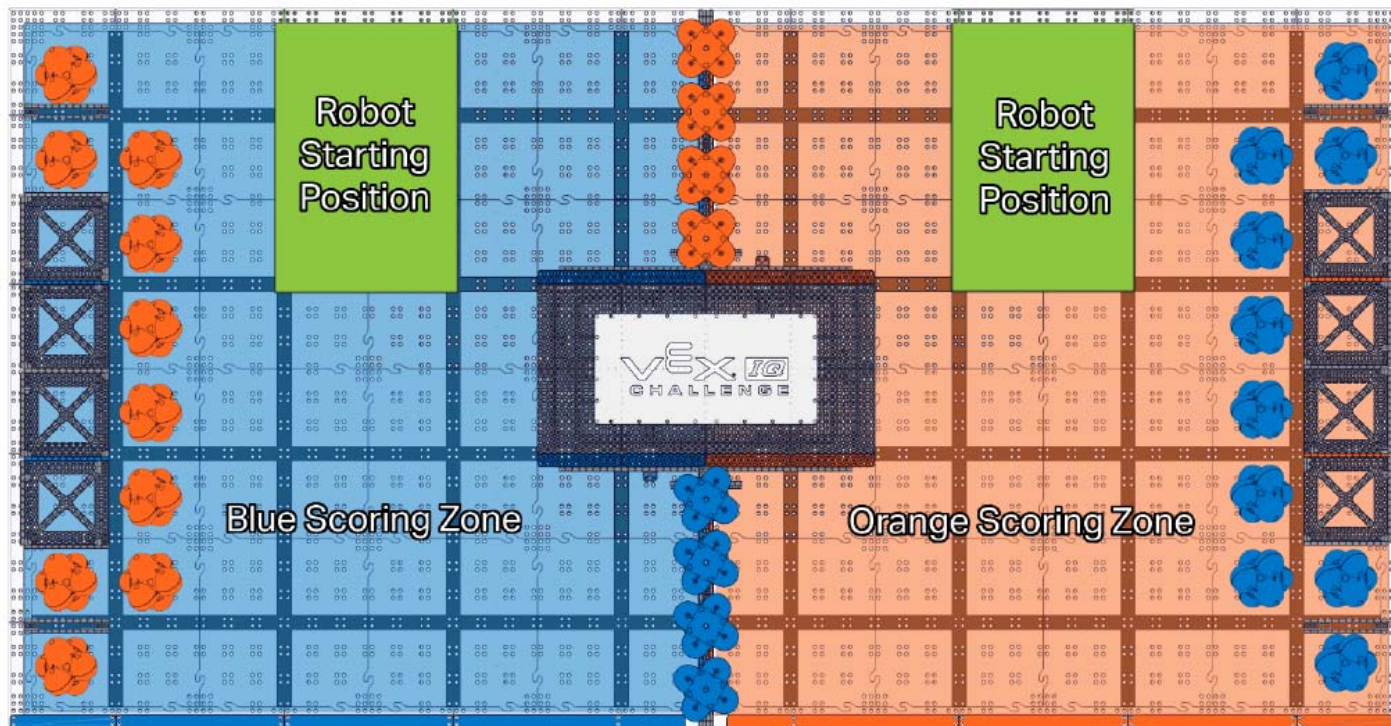
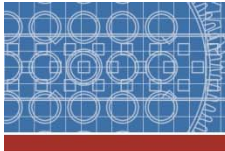


# Game Definitions

- **Balanced**
  - A Bridge is Balanced if neither end of the field is touching the floor and not supported by a Hexball.
- **Parked**
  - A Robot is Parked if it is touching the Bridge and not touching the Floor at the end of the Match.

# Scoring

- A Hexball is Scored if it is not touching a Robot and meets **ONE** of the following criteria.
  1. The Hexball is contacting the **Floor** within the Scoring Zone of the same color.
  2. The Hexball is partially within the three dimensional **VOLUME** of the Goal of the same color.
- Note 1: If scored in both, it only counts in the Goal
- Note 2: No more than 1 Hexball per Goal
- Note 3: If scored in multiple Goals, only counts for highest goal (A Hexball cannot earn points for more than 1 goal)



## Scoring

- Hexball Scored in a Scoring Zone of same color 1 pt
- Hexball Scored in a Low Goal of the same color 3 pts
- Hexball Scored in an Elevated Goal of the same color 5 pts
  
- One Robot Parked on the Bridge 5 pts
- Two Robots Parked on the Bridge 15 pts
- All Robots Parked on a Balanced Bridge 25 pts

# Drivers <G5>

- During the Match
  - Drivers must remain in their Driver Station, except when legally interacting with their robot.
  - Drivers may NOT use any communication devices during the Match.

# Robot Assistance during Match

## <G14>

- If a *Robot* goes completely out-of-bounds (outside the playing field), gets stuck, tips over, or otherwise is in need of assistance, the *Drivers* may retrieve and reset the robot. In the process they must move the *Robot* such that **it is touching the field perimeter and not touching the *Bridge***. Before retrieving its *Robot*, the team must signal the referee by placing its VEX IQ Controller down such that it is not in the hands of either driver. Any *Hexballs* in possession of the *Robot* while being handled must be removed from the *Robot* and taken out of play for the remainder of the *Match*.



## Hexballs leaving the field <G7>

- Hexballs that leave the playing field will be return to the nearest point where it exited. If the nearest point is in a goal, the Hexball will be returned to a spot adjacent to and not in the Goal.





# Questions?