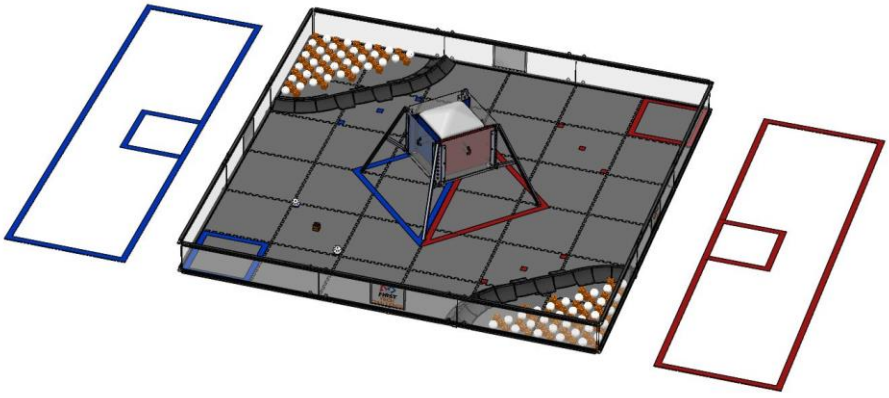
ROVER RUCKUS

Presented By Qualcomm



The Game:

ROVER RUCKUS℠ presented by Qualcomm® Incorporated is played on a 12 ft. x 12 ft. (3.7m x 3.7m) square field with approximately 1 ft. (0.3 m) high walls and a soft foam mat floor. The object of the game is to attain a higher score than the opposing alliance by descending from the Lander, collecting Minerals from the Crater, sorting and scoring Minerals into the Cargo Hold of the Lander, performing Autonomous tasks, and navigating to specific parts of the Playing Field. The Scoring Elements for the game are 60 Silver Minerals and 90 Gold Minerals, and a team supplied Team Marker.

There are two alliances of two robots each – "red" and "blue". There are two alliance-neutral Craters sit in opposite corners of the Playing Field and two Alliance-specific Depots are in the other corners. Unique navigation targets are placed in the center of each field wall. In front of each corner is a Mineral Sampling Field with 2 Silver Minerals and 1 Gold Mineral, randomly lined up. Field personnel will randomize the Minerals in the Sampling Field prior to the start of the Match. The remaining Minerals are divided approximately equally and placed in each Crater.

The Lander sits in the center of the field with Alliance-specific Landing Zones marked by red and blue tape surrounding it. Prior to the start of a match, robots may be Latched onto the Lander. Robots that cannot be Latched must start in the alliance's Landing Zone under one of the Alliance's Lander Support Bracket. Robots may also preload a Team Marker.

Matches have two distinct periods of play: a 30-second autonomous period followed by a two-minute driver-controlled period, the last 30 seconds of the driver-controlled period is called the end game which adds new scoring opportunities for robots to achieve.

Autonomous Period:

During the autonomous period, robots operate using only pre-programmed instructions and sensor inputs. Alliances earn points by: Landing – robots lower themselves from the Lander onto the Playing Field; Sampling – robots identify the single Gold Mineral in each Sample Field; Claiming – Robots place the Team Marker in their corresponding Depot; and Parking – robots that end the autonomous period in a Crater earn points.

Driver-Controlled Period:

During the driver-controlled period, alliances earn points by placing Minerals into their alliance's Cargo Holds and Depot. Gold Minerals must be placed in the Gold Cargo Hold and Silver Minerals into the Silver Cargo Hold to score. Any Mineral in the Depot increases the Alliances score.

End Game:

The final 30 seconds of the driver-controlled period is called the end game. In addition to the driver-controlled period tasks, Alliances earn points by Latching onto the Lander or by Parking In or Completely in any Crater.

Autonomous Period Scoring:

Landing	30 points
Sampling	25 points
Claiming	15 points
Parking	10 points

Driver-Controlled Period Scoring:

Gold Mineral in Gold Cargo Hold	5 points/Mineral
Silver Mineral in Silver Cargo Hold	5 points/Mineral
Any Mineral in Depot	2 points/Mineral
Incorrect Mineral in either Cargo Hold	0 points/Mineral

End Game Scoring:

Robots Latched	50 points/robot
Robots Parked In Crater	15 points
Robots Parked Completely In Crater	25 points

FIRST TECH CHALLENGE

FIRST TECH CHALLENGE ALBERTA

FIRST ROUND RED DEER

DECEMBER 1st, 2018

FIRST Values

Gracious Professionalism® is part of the ethos of FIRST. It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community.

With Gracious Professionalism, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process. They avoid treating anyone like losers. No chest thumping tough talk, but no sticky-sweet platitudes either. Knowledge, competition, and empathy are comfortably blended.

Coopertition® produces innovation. At FIRST, Coopertition is displaying unqualified kindness and respect in the face of fierce competition. Coopertition is founded on the concept and a philosophy that teams can and should help and cooperate with each other even as they compete.

Coopertition involves learning from teammates. It is teaching teammates. It is learning from Mentors. And it is managing and being managed. Coopertition means competing always, but assisting and enabling others when you can.

Team Ranking

After all qualifying matches, all teams will be ranked from first through last based on their total **Ranking Points** (RPs). If multiple teams have the same number of ranking points, then the teams will be ranked based on their total **Tiebreaker Points** (TB). If multiple teams have the same tiebreaker points total as well, the teams will be ranked based on their highest match score. If this comparison still results in a tie, the next highest match score will be used until the tie is broken.

Top scores from a maximum of 10 matches will carry forward to the Championship event.

Team List

4169 System Overload
Lacombe Composite High School, Lacombe

5009 Helios
École Maurice-Lavallée, Edmonton

10544 Cyber Eagles
Strathcona Christian Academy Secondary, Sherwood Park

12094 Team TWOSE
Telus World os Science Edmonton, Edmonton

12265 Gearheads
Community Team, Calgary

12336 STEM Squad
Bentley School, Bentley

13000 Data Wolves
Community Team, Calgary

13479 Xplorobotics
Community Team, Calgary

14587 Interstellar Allstars
Lacombe Composite High School, Lacombe

15570 The Bread Chasers
Bentley School, Bentley

15586 12 volts
Community Team, Calgary

15738 BLAKE
Bentley School, Bentley

FIRST ROBOTICS SOCIETY