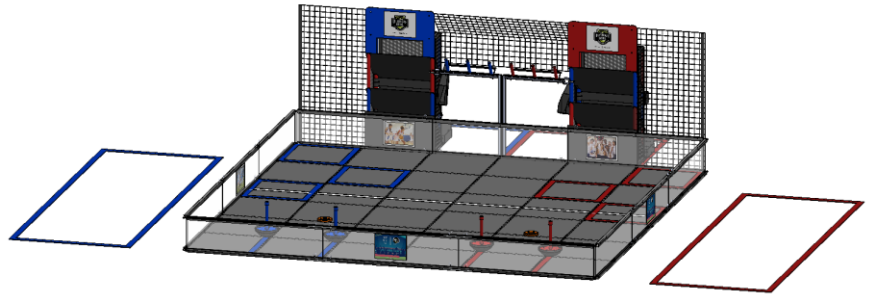




PRESENTED BY **Qualcomm**



The Game:

ULTIMATE GOALSM presented by Qualcomm[®] 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. There are two Alliances of two Robots each – “red” and “blue”. The field is separated by the Launch Line. The Launch Zone is located toward the audience. Within the Launch Zone are two red and two blue start lines where robots start the match with an Alliance-specific Wobble Goal. Also, within the Launch Zone is the Starter Stack Area. There are six Target Zone Goals, three red and three blue. At one end of the field are two Tower Goals each containing three Alliance-specific Goals. Between the Tower Goals are the Power Shots, with three Power Shot Targets for the red alliance, and three for the blue alliance. The Drop Zone is located outside of the field toward the audience. Scoring elements are twenty Alliance-neutral Rings.

Prior to the start of a Match, Robots must be touching the front field border wall and must be parked on top of their Alliance-specific Start Line. Robots must pre-load exactly one Wobble Goal and optionally pre-load up to three Rings.

Matches have two distinct periods of play: a 30-second Autonomous period followed by a two-minute Driver-Controlled period. The last thirty seconds of the Driver-Controlled period is called the End Game which adds new scoring opportunities for the Robots to achieve.

Autonomous Period:

During the Autonomous period, Robots operate using only pre-programmed instructions and sensor inputs. Alliances earn points by: Delivering Wobble Goals to the correct randomized Target Zone Goal, Parking on top of the Launch Line, Launching Rings to score Power Shot Targets, and Launching Rings to score in their Alliance-specific low, medium, or high Goal.

Driver-Controlled Period:

During the Driver-Controlled period, Alliances earn points by collecting and Launching Rings; and then scoring them into their Alliance-specific low, medium, or high Goal.

End Game:

The final thirty seconds of the Driver-Controlled period is called the End Game. In addition to the Driver-Controlled period tasks, Alliances earn points by Delivering a Wobble Goal to the Start Line or to the Drop Zone, scoring Rings on a Wobble Goal, and Launching Rings to score Power Shot Targets.

Autonomous Period Scoring:

- Wobble Goal Delivered to correct Target Zone: ... 15 points
- Parked in Launch Line5 points
- Launched Rings into Alliance-specific Goals
 - Low:3 points
 - Medium:6 points
 - High: 12 points
- Power Shot Targets Launched Back: 15 points/Target

Driver-Controlled Period Scoring:

- Launched Rings into Alliance-specific Goals
 - Low:2 points
 - Medium:4 points
 - High:6 points

End Game Scoring:

- Wobble Goal Delivered
 - Start Line:5 points
 - Drop Zone:20 points
- Rings Supported by Wobble Goal: 5 points each
- Power Shot Targets Launched Back: 15 points/Target



FIRST
TECH
CHALLENGE