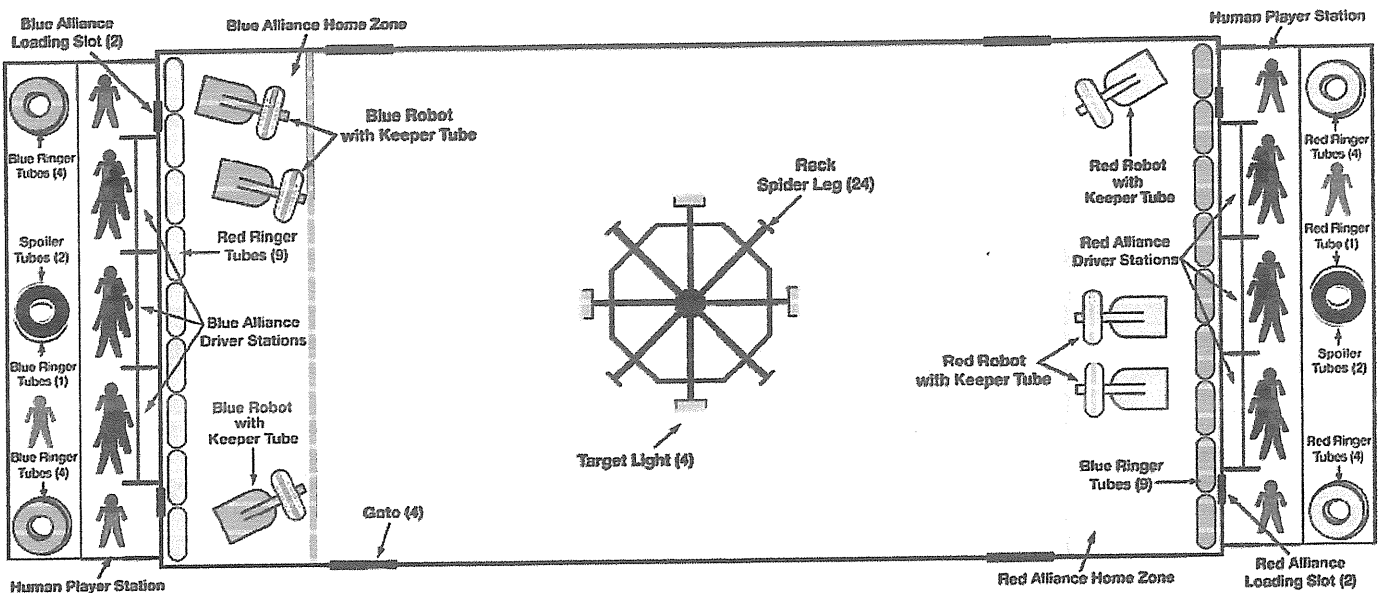


THE GAME

Description and Scoring



Rack 'N' Roll is played on a 54'x 26'8" field with a center structure Rack containing 24 "spider legs", by two (2) three-team alliances, using three different types of tubes called "Keepers," "Ringers" and "Spoilers"

- Keeper:** Color w/lettering (red or blue)
- Ringer:** Color/no lettering (red or blue)
- Spoiler:** Black

Without their bumpers, robots must fit in a 28" x 38" sizing rectangle, and depending on their weight, may be up to 6 feet tall. Robots may weigh up to 120 pounds (less battery), however taller robots must weigh less than shorter robots (see chart below).

The game is made up of two scoring periods. The first period is "Autonomous" (the robots run without driver control) lasting 15 seconds. In the autonomous period robots try to place a Keeper tube on one of the spider legs of the Rack using a color vision tracking system to find one of the four target lights at the top of the rack. Once placed, a Keeper tube may not be removed or "Spoiled."

Robot Height/Weight			
Class	I	II	III
Height	48"	60"	72"
Weight	120 lbs	110 lbs	100 lbs

During the second period (2 minutes) the robots are driver controlled. In this period the teams will attempt to score more points by using the robots to add Ringers onto the spider legs or by "Spoiling" the opposing teams score by placing a black tube over their Ringer. Points are earned and scored exponentially by the number of consecutive Ringers and Keepers in a column or row.

Alliances may score additional points if, by the end of the match, their robots are in their home zone and have been lifted off the floor by 4" or more by another robot before the final buzzer sounds.

SCORING								
Rows or Columns	Single	2	3	4	5	6	7	8
Point Value	2	4	8	16	32	64	128	256

Robots off the Ground	
> = 4," less than 12"	15 points
12" or higher	30 points