The Game:

Charon Challenge, a robotics competition for students in 6th grade and younger, is played on the field shown above which is approximately 10' x 16'. Alliances, made up of two randomly paired teams, collaborate to score as many points as possible. Matches are 1:30 (one minute and thirty seconds) in length. The controller of the robot must be passed from one driver to the other between thirty and sixty second within a match.

The object of the competition is to attain a higher combined score than all the other teams. Points are scored by placing rocks (tennis balls), boulders (softballs), the meteorite (black tennis ball) in the lab analysis platforms (goals). Knocking over the volcano (traffic cone) earns points as well. Points can also be scored by turning on the communication orb (large red ball) by both robots touching it at the same time for 3 consecutive seconds. In addition, teams may also earn points by "parking" their robot on the launching platform (colored tile) at the end of their excursion.

The Details:

There are a total of thirty (30) tennis balls, four (4) softballs, one (1) bonus ball (black/dark tennis ball), 1 (one) Volcano, 1 (one) Communication Orb (10"

ball) and one (1) Launch Platform available as scoring objects in Charon Challenge.

All game objects; thirty (30) rocks (tennis balls) , 4 (four) boulders (softballs) and the meteorite (black/dark tennis ball) start on the field as seen above. Robots are placed on the tiles anywhere the team deems best as long as the robot is within the rope perimeter and is not touching any game objects or goals.

Each robot (no larger than 13" x 13" x 13" to start) will collaborate within its Alliance in order to maximize its score. The breakdown of the scoring can be seen below.

Scoring:

Object	Goal	Score
Rocks (Tennis Ball)	Low, Medium, High	1.2,3
Boulders (Softballs)	Low, Medium, High	2,4,6
Meteorite (Black/Dark Tennis Ball)	Remove from top of volcano.	5
Meteorite (Black/Dark Tennis Ball)	Low, Medium, High	3, 6, 9
Volcano	Knock over volcano	5
Communication Orb	Both robots touch for 3 consecutive seconds.	10 (Max 1 time)
Launch 1	One robot on launch pad at end of excursion	5
Launch 2	Two robots on launch pad at end of excursion.	15