



Charon Challenge Game Elements

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Appendix C – Charon Challenge Game Elements

C.1 – Description

This appendix contains information on the construction and placement of the game elements used in Charon Challenge.

C.2 – Bill of Materials

The table below contains the materials needed for a single set of Charon Challenge game elements.

Game Elements

Item	Type	Price	Quantity	Total	Source	SKU
Rocks (Tennis Balls)	Dozen	\$7.67	3	\$23.01	Walmart	n/a
Meteorite (Black Tennis Ball)	1	\$0	1	\$0	Walmart	n/a
Volcano (Traffic Cone)	Each	\$10.99	1	\$10.99	Lowes	COR18Cone
Boulders (Women's Softballs)	4-Pack	\$11.97	1	\$11.97	Walmart	n/a
Communications Sphere (Ball)	Each	\$2.50	1	\$2.50	Walmart	n/a
Lab Analysis Sites (Goals)	Set	\$59.99	1	\$59.99	CREATE	CC001
Black Spray Paint	Can	\$2.59	1	\$2.59	Lowes	n/a
Game Elements Total				\$111.05		

Field

Item	Type	Price	Quantity	Total	Source	SKU
Field Border Set	Set	\$99.00	1	\$99.00	CREATE	FB001
Foam Tiles	Pack	\$24.00	3	\$72.00	Sams	276459
Field Total				\$171.00		

In an effort to assist with procuring game elements and fields, CREATE now offers complete sets of each. A complete game elements kit may be purchased for \$120.00 and a complete field, border set and tiles may be purchased for \$175.00 directly from CREATE.

C.3 – Volcano

The volcano is an 18” orange traffic cone. See the bill of materials for details.

C.4 – Lab Analysis Sites (Goals)

There are three lab analysis sites. They are purchased as a set from CREATE. They are as follows:

- Low: 12”x18” piece of 1/8” thick plastic with a 1/4” lip. It is placed directly on the foam tile surface and is secured using game base plates.
- Medium: 10”x16” piece of 1/8” inch plastic with 1/4” lip. It is elevated, using standoffs, 1 1/2” off the tile surface. It has a ramp attached to one side.
- High: 9” circular piece of 1/8” plastic with a 1/4” lip. It is elevated 3 1/2” inches off the tile surface.

C.5 – Launch (Parking) Platform

The Launch Platform is a single tile turned “up” so that the colored (non-gray) side is showing. Refer to diagram below.

C.6 – Meteorite (Bonus Ball)

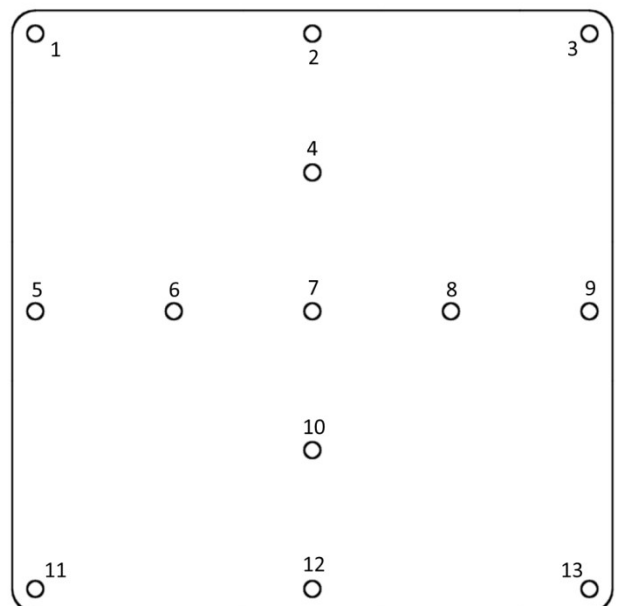
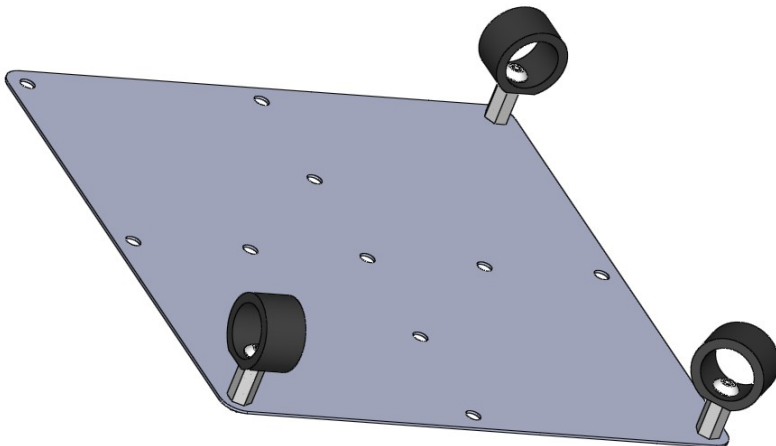
The “Meteorite” is a black, or dark, tennis ball. A dark tennis ball may be purchased or a regular tennis ball may be painted black. The Meteorite starts the game atop the Volcano.

C.7 – Rope Attachment Plates

The border of the field is created through the combination of 5/8” rope and custom rope anchor points. The location and configuration of these anchors is game dependent and is outlined in the figures and description below.

10 plates will be used in Charon Challenge. There are three different arrangements of the rope anchors. Unless otherwise noted, the top of the plate with holes 1, 2, and 3 is oriented toward the center of the field. When placing anchors, keeping the rope taut will produce better results.

1. Eight (8) are standard straight edged plates with posts attached at 11 and 13.
2. One (1) is a single-point corner with a single post attached to 7.
3. One (1) is a three-point corner with posts attached at 1, 11, and 13. (example shown below)



C.8 – Element Placement

All descriptions are based off of the figure shown below.

The Rope Attachment Plates are organized as shown below. The plates should be hidden under the foam tiles whenever possible. The standoff is fed through the seam of the tiles with the Velcro on the top surface. The Velcro is then looped over the rope and attached to itself. The rope should be pulled taught as necessary to provide the best results. Note that the green dots are single attachment point and the red dots represent three-point connections.

The Lab Analysis Sites are arranged as below. Each Site should be secured via the game object base plates that come with the game elements kit.

The center of both the surface mounted rectangular lab analysis site and the round lab analysis site are centered on the intersection of 4 tiles. All standoffs are to be inserted at the seam, where two tiles interlock.

The Volcano is placed in between the front edge of the craters with the Meteorite placed on top.

All rocks (tennis balls) and boulders (softballs) are placed randomly in the craters as shown below.

The Communication Orb is placed in the center of the tile on the first full row of tiles.

The launch pad is the colored tile (non-gray side) to the far right in the picture. Pick any tile and attach it colored side up. Any color is acceptable.

