

# MOONBOTS

A Google Lunar X Prize LEGO MINDSTORMS Challenge

**Round Length:** 3 minutes **Maximum Score:** 350 points

## Schedule:

**Registration:** April 15th - May 15th 2010

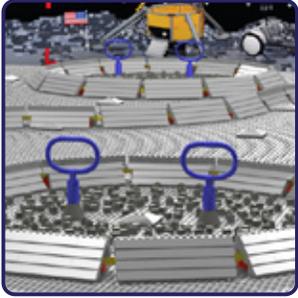
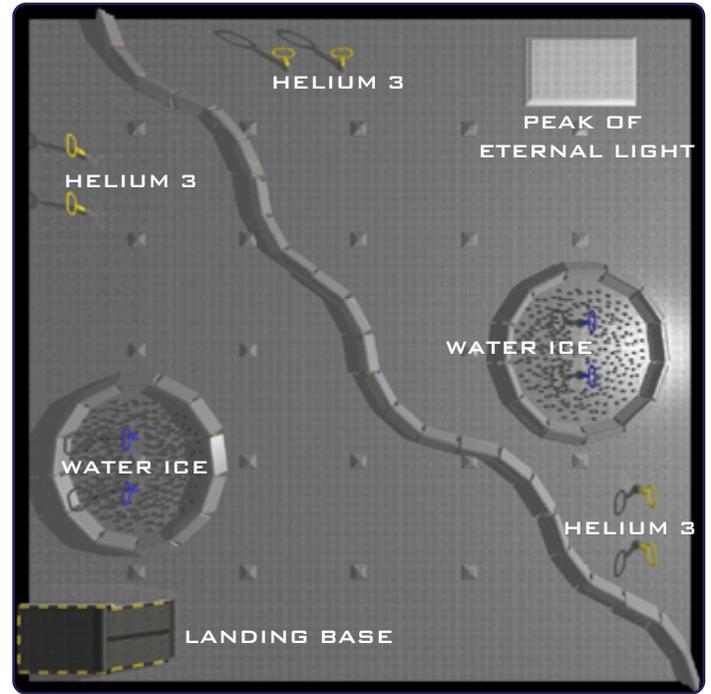
**Phase One:** April 15th - May 28th, 2010

**Phase Two:** June 21st - August 14th, 2010

## Playing Field:

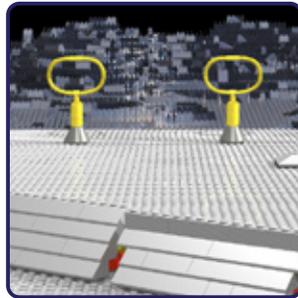
The MoonBots Challenge is played on a lunar surface made from 48 x 48 module large gray LEGO® base plates and measuring 7.5 feet (2.2m) to a side. It is dominated by two large craters and a long ridge that bisects it. The objectives below represent simulated lunar mission tasks.

Visit <http://www.moonbots.org> for details



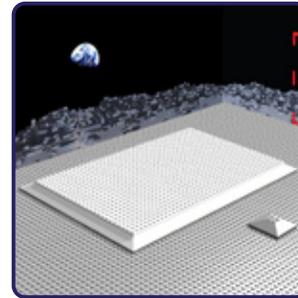
**Discover Water Ice**  
15 points each

In each crater there are two Water Ice elements. Be careful not to lose traction in the regolith on the crater floor.



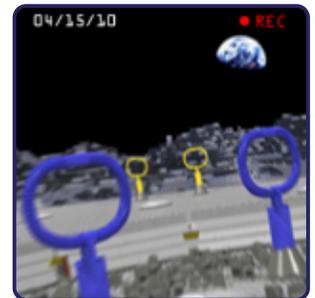
**Discover Helium 3**  
10 points each

Spread across the lunar surface there are six Helium 3 elements, find them all and bring them back to base for analysis.



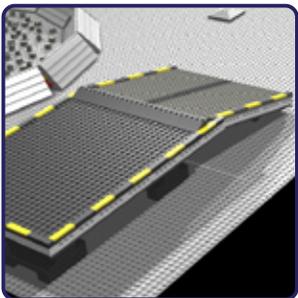
**Survive the Lunar Night**  
30 points

Your robot must visit the the Peak of Eternal Light and rest in order to survive the lunar night.



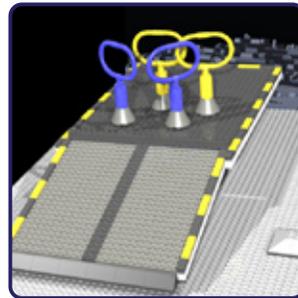
**Capture Mission Video**  
20 points

Capture video from your robot's perspective as it navigates the rough lunar surface during its mission.



**Lander Dismount**  
20 points

Your robot starts here with the ramp up. It must successfully descend the lander onto the lunar surface.



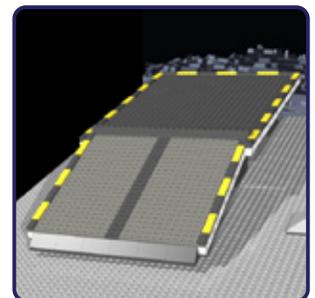
**Return the Elements to Base**  
Each element x 2

Successfully returning the Water Ice and Helium 3 elements to base doubles their score. They can be on or off your robot to qualify.



**Photograph the Heritage Artifacts**  
20 points

At some point in your mission your robot must stop and take a picture or video of the Heritage Artifacts.



**Return to Base**  
20 points

Return to base at the end of your mission. Your robot needs to be touching the landing base to qualify but we will be really impressed if you go back to the top and bring the ramp up behind you.