

# ZERO ROBOTICS

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SPHERES CHALLENGE 2010

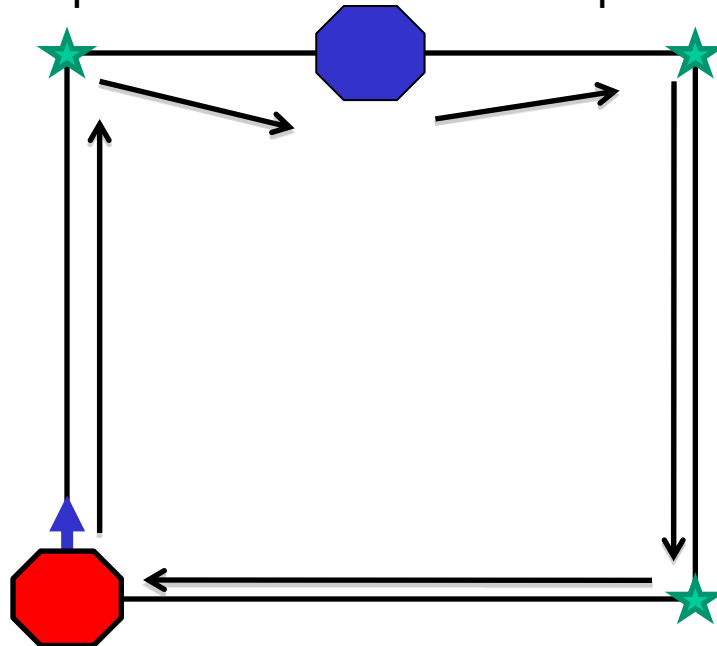
## Square Practice Game

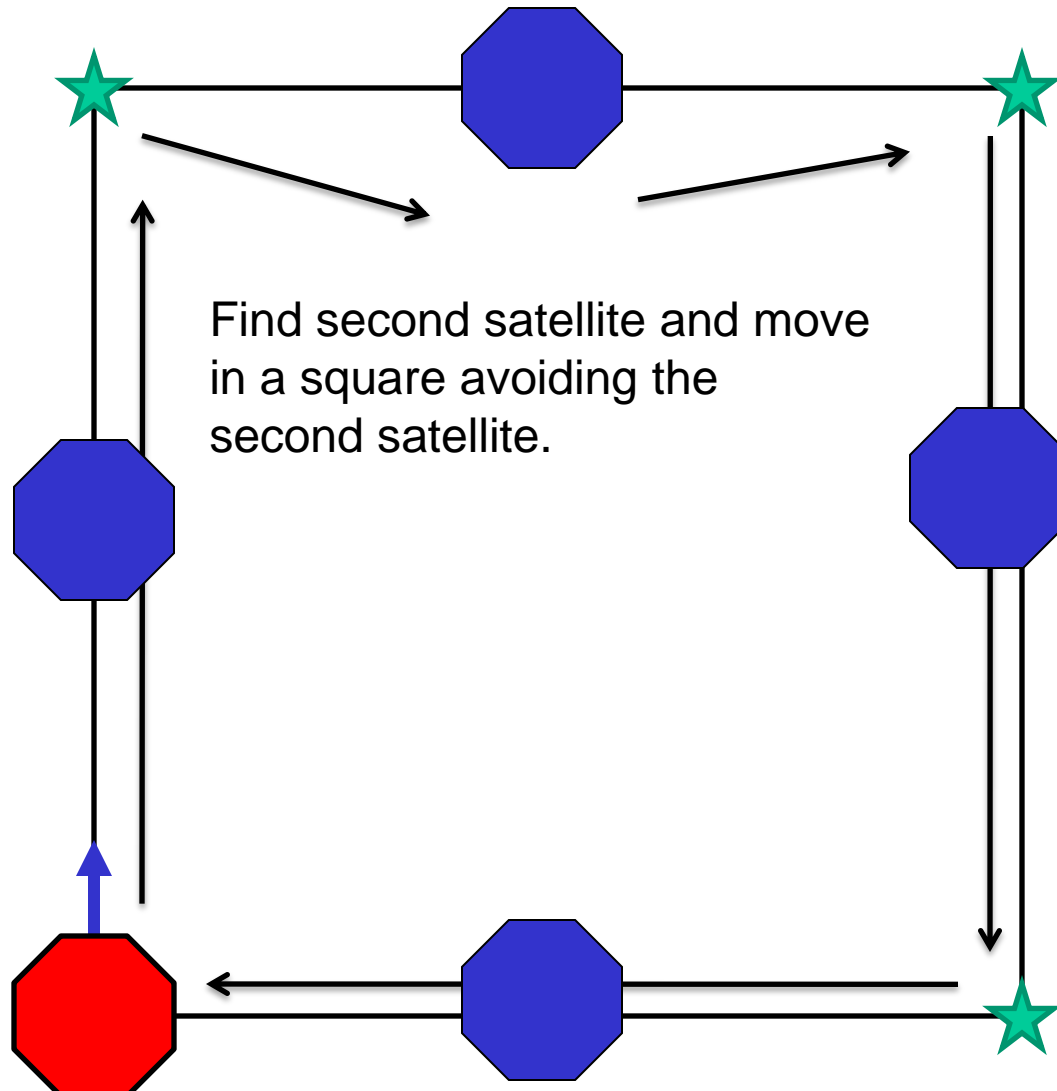


- Objective:

- Move in a square (ie. visit 4 points that form a square)
- Avoid the second satellite
- use information from the other satellite

- For this tutorial, your goal will be to move in a simple square while avoiding the second satellite that will be positioned in one of four places at random.





- First, just try to follow the square
- Come up with a simple avoidance method to go around the other satellite
- Refine such that you can avoid the second satellite no matter its position.

- Think about where you are starting and how to make that your first point in the square
  - A good way to figure out where you are at any point in time is the myState variable
- Consider how big you want your square to be and where the other corner points will be located
  - How will you be able to indicate the location of the other points without using specific points on the grid?
  - How can you use myState and other variables you create to indicate the locations of those points?

- How will you obtain the location of the other satellite?
  - Think about the “otherState” variable
- How can you make your satellite avoid the location you obtain for the other satellite?
  - Think about how you might be able to use geometry here