Assignment 1

Out: Tuesday, 22 January 2013
Due: Tuesday, 29 January 2013

Overview:

UMass Lowell has been selected as one of eight teams to compete in the NASA RASC-AL Robo-Ops competition in June 2013 at NASA’s Johnson Space Center. In class this semester, we will build and program a rover for this competition. This assignment introduces you to the rules and winning designs from the past two competitions.

Reading:

The rules for this year’s NASA RASC-AL RoboOps competition can be found at http://www.nianet.org/RoboOps-2013/Program-Information.aspx. Read these rules, as well as the FAQ available on the web site (see left menu bar).

The reports written by the winning teams in 2012 and 2011 can be found at http://www.nianet.org/RoboOps-2013/Previous-Winning-Teams.aspx (once on the RASC-AL Robo-Ops website, this is the Previous Winning Teams link in the left menu bar).

To Turn In:

Write answers to the following questions, either handwritten or typed (If handwritten, please be sure it’s legible. If typed, be sure to print it out to turn in during class.)

1. What do you think are the top two challenges for this year’s competition? Why did you pick these two?

2. Write short (1 paragraph) summaries of the approaches taken by the top three teams in 2012 and 2011 to the two challenges that you identified (6 paragraphs total).

3. How do you think we should address these challenges? Feel free to include sketches with your write up.