

## Challenge Seven: *The Game/Dress Rehearsal*

ROBOTIC AUTONOMY  
Summer 2002

The final challenge will require you to work together tightly with your TrikeBotó as if it were an extension of yourself!

### The Game (20 points)

You will be involved in a secret mission known as The Game. No details can be provided. Your team will consist of your team members plus one robot and one computer. To prepare for The Game, ensure that your TrikeBot has fully charged batteries, plus spares, and be absolutely sure that you can drive your robot around without seeing it (teleoperation) and take pictures with it. These abilities will be critical to your success during The Game. Good luck!

### Dress Rehearsal (40 points)

This is your chance to shine as robonauts! You'll have the time to create a compelling, enjoyable exhibition that the audience will love and that will be your team's legacy, available on the web for years. Your exhibition on Wednesday will be your formal dress rehearsal for the performance in front of the admiring crowd on Friday. On Monday you will work with Illah to crisply define *exactly* how you will choreograph your exhibition. Just like a dress rehearsal, after your performance your exhibition will be considered frozen until Friday, except for superficial fixes and fine-tuning.

### Open Source (20 points)

You will prepare an open-source release of your exhibition. Be good about documenting this well. Work with us to obtain *several* videos of different aspects of your exhibition, and many photos. As with previous weeks, create a new folder (Week 7) and put in that folder all the associated Java files for the exhibition together with the following written sections:

- Summary: what this program does
- Directions: how to run it
- Performance: how you have tested it and how well it did
- Limitations: how and what causes it to perform poorly
- Suggested Improvements: what you would do next to improve the program

### Web Documentation (20 points)

The items to submit for your web site this week are about your exhibition:

- 1) Describe how your exhibition evolved: what you did to start out and how the exhibition changed over time. What behavior of the TrikeBot are you exhibiting? Did your design change to take advantage of a capability that you or your robot possess? Please describe this change.
- 2) Make a sketch of the exhibition stage including props and your TrikeBot's starting position. Indicate essential movements of your robot.