Contest Two: *Robot Theater/Soccer*

ROBOTIC AUTONOMY
Summer 2002

Now that you can program smart buttons on your interface, you have the ability to customize the motion of your robot for a specific task. These tasks can rapidly become complex and interesting! For instance, youíll create a scripted performance, otherwise known as Robot Theater, with roles for your team and your TrikeBot. To take a break from all the drama, youíll also create custom buttons to be able to have your robot play soccer!

Robot Theater

This production will have 4 actors: the three of you and your Trikebot. At the beginning of the play, one of you should press a button on the Java interface and then you should not need to issue another command. Each of your teammates, including the TrikeBot, will then proceed to play out your roles according to the script you write. This one-act play, or skit, must be between 2 minutes and 5 minutes and can have any topic or be written in any language, as long as the audience has some ability to understand what is happening. Humor is good. Like all good plays, yours should have an ending, happy or otherwise.

Robot Soccer

As with the last contest, this game has to be modified to be suitable for TrikeBots. Instead of a ball, weíll use something that your robot can really move: a large, empty box! We will have short soccer games consisting of 2-on-2 soccer. You will join up with another team and their TrikeBot as you face off against two other teams.

The rules:
1. Each game will be 10 minutes long.
2. Intentional robot fouls will remove a robot from play.
3. If a robot ceases operating, an instructor will be allowed into the field to power cycle the robot.
4. If the robot continues not to operate, it will be left in position and turned off.
5. The game field will be in the hall; the object is to move the box from the midway starting position past your opponentís goal line to score.
6. You will control your Trikebot by designing, implementing, and then using a total of 10 buttons on your interface. **You may NOT use the joystick window at any time, only your 10 buttons.**
7. You can physically modify your TrikeBot with suitable legs to maneuver the soccer ball down the field.
8. Every two minutes we will call ìSWITCH,î at which point the robot driver must switch off control to a fellow teammate. That way all three team members demonstrate their skill at driving the TrikeBot and get a chance to go for the glory.
9. You will know who your teammate is and who your opponents are immediately before each game.

Initial Game State

Team A Goal Line

Team B Goal Line