Final Project Handout

By this time, you should have more or less decided on a final project scenario. What you should do now is create a proposal to hand in during lab this week. You will discuss it with your TA during lab, and then turn in a revised version in class on Friday, March 20.

Each **group** should turn in one proposal. This should be about three pages long (or longer if you need) and should provide a complete high-level description of your project. It should include descriptions of the hardware you intend to use, including any sensors that we may have to buy or build, the goal you hope to achieve and three milestones towards that goal.

When setting the goal, try to be realistic. However, you should also include a description of further work that you will carry out if you reach the goal before the project deadline. Remember that your milestones and deadlines should be incremental if possible, so that if everything goes wrong and you only reach the first milestone, then you still have something to show for your efforts.

After the project is officially approved, any changes that you want to make to it have to be approved by your TA. Your grade will be determined by how closely your implemented system matches your proposal, and how successful you were in accomplishing the goals that you set. You will also be expected to participate in the robot talent show and to write a term paper on the project, both of which will count towards your final grade.

Milestones

The milestones are subgoals that you set on the way to your final goal. They will be used to make sure that you are making progress, and to give you an idea of how things are progressing. The milestones should be well-defined and realistic. They will not be officially graded, but failure to show up and demonstrate progress will count against your final grade. Note that you will not be penalized if you fail to meet a milestone, as long as there is good cause (for example, the algorithm used turns out not to be suitable and you have to change to another). Be sure to leave some spare time when creating your milestone - things will take longer than you think.

For each milestone, you will have to show your TA what you've done, and talk about it for a while. The milestones are due in lab section, the weeks before April 10th, 17th, and 24th.

Talent Show

This is an annual event in the department and is open to the public. Unlike the mid-semester contest, participation in the talent show is mandatory and you will be graded on your performance in it. There will also be valuable prizes. You should be prepared to give a short talk (5 minutes) about your robot and to demonstrate what it can do to the audience and judges. Make sure that your batteries are fully charged!

Final Project Paper

The final project paper should be somewhere between five and ten pages and should compare what you set out to achieve with what you ended up with. It should include a detailed description of the work done, problems encountered, assumptions made, algorithms used, *etc.* In short, it should contain enough detail that someone could recreate your work after reading it. Each person should write up their own final project paper.

Final Project Schedule

Final Project Draft due	In lab before Friday, March 20
Final Project Proposal due	Fri, March 20
Milestones	In lab, the week before:
	(1) Fri, April 10
	(2) Fri, April 17
	(3) Fri, April 24
Talent Show	To be announced
Final Project Paper Due	Friday, May 8th