

## Final project information

For the final project, you must do the following:

- Schedule and give me a demonstration of your program working on the robot.
- Leave your source code in the home directory of one team member on `maximal`
- Turn in a written project report (with contents as detailed below)

You must do these things by the end of the day on Wednesday May 8.

### Demonstration

Contact me by email in advance to arrange a time for your demonstration. I expect to be available for demonstrations on any day except for approximately noon on Thursday May 2 until noon on Saturday May 4.

The demonstration itself shouldn't take that long. I would like to see you program run at least once however you will have it set up. I would then like to see it run with some change (e.g. the robot's destination, the arrangement of the fake walls, obstacle position and orientation — whatever is appropriate to the project that you are doing). I get to pick the change within the parameters you give me!

### Written report

The first section of your written report should be something like a user's guide for the program that you wrote. Think of writing it for Andrea (our undergraduate TA) — she knows how to use the robot but does not know any of the details of your project topic or how to run your program. I should be able to give the first section of your written report to her and have her successfully demonstrate your program.

Here's an outline for this first section:

1. brief description (one or two paragraphs) of what you have done for your project; be sure to describe assumptions that you have made (e.g. no moving obstacles, other obstacle limitations, orientation of walls, ignoring odometry error, etc.)
2. required setup — describe the physical setup that must be done before running your program, e.g. where does the robot have to start, do you need the fake walls set up in some arrangement, does the lab door need to be open, etc.
3. how to run your program — where is your source code and executable, what command line arguments are required, and how to operate your program. I suggest you make operating your program as simple as possible.

The remainder of your report should cover the following:

- the results of your project, i.e. a detailed description of what your program enables the robot to do
- describe the algorithm(s) that you implemented at a reasonably high level (i.e. not a line-by-line or equation-by-equation description of your code)
- a critical evaluation of your final project results, i.e. a detailed explanation of how well your project worked and where it could have been better