The goal of this final laboratory exercise is to (hopefully!) integrate what you’ve learned in the course with the last lab exercise to implement a simple motion planner. For this lab, you are to implement a simple sensor-based motion planning algorithm that can take the ER1 robot from an initial starting configuration to a goal configuration, while avoiding at least one, and preferably two or more obstacles. One of the Lumelsky “bug” algorithms, the “tangent-bug” algorithm, or a potential field method are good candidates for this exercise.

To complete this homework, you must

- describe the algorithm you chose, and the method to implement it.
- turn in your commented code
- demonstrate the algorithm to the class T.A.