

Due: February 27, 2008

AE 498 IT  
Challenge #1

Design a roving vehicle that will explore an entire space while avoiding static obstacles (all of a convex nature). The playing field is essentially unknown and must be discovered by the robot during the course of the competition. The robot must demonstrate the ability to have visited any point in the playing field, given a 5 minute exploration interval. The robot may not move any of the obstacles (whose weight will be the equivalent of at least 16 fluid oz of water). The playing field can be as large as the area of a standard classroom (960 ft<sup>2</sup>), but is subject to variation.