Massachusetts Institute of Technology
Department of Mechanical Engineering

2.12 Introduction to Robotics

Final Project Demonstration
Santa’s Home Delivery Robots
Wednesday, December 8, 2004

- 2:30 Meet in the 2.12 Lab
  Final check/preparation
- 2:50 Move your machine to the pit in front of the graduate machine shop
- 3:00 Welcome and Chorus
- 3:05 Introduction of the members of each project team
- 3:10 Task 1 and Task 2 Demo
  Have the robot run from the North Station to the Village
- 3:25 Task 3 and Task 4 Demo within the Village
- 3:40 Task 5 and Task 6 (if presentable)
- 3:50 Award presentation
  • Best Group Award: 2.12 Robot Hall-of-Fame
  • Rudolph Prize (MVP)
- 4:00 Refreshments
Task 1)
The path you will follow will consist of 3 inch wide masking tape with 1 inch electrical tape inside. This path, without any sharp turns, will guide you to the first house that is directly inside the "town". We will mark the house with a magnetic sensor already in the ground.

Task 2)
Because of the uniqueness of each group's robot, we will let you place the present wherever you would like on the top floor and pick up the cookie from a position that you prescribe.

Task 3)
The house chimney, which is simply a rigid rectangular box, is placed near another magnet in the ground. You will dead reckon to the position that the box is and you can use the magnet in the ground as proof that you are in the vicinity.

Task 4)
You must probe with the linear potentiometer to make sure that you found the chimney and then follow the chimney upwards you get to the top. Once you find the top of the chimney, you can drop the present off.