

CSCI-4965/6963: Robot Motion Planning
Lecture 10: October 1, 2001
Randomized Planning with Potential Functions

Announcements

- Assignment 2 is due today by 11:59pm. Please see the Assignment 2 web page for submission instructions.
- Assignment 3 will be handed out on October 4 and will be due on October 11.

Today's Class

Today we look at *randomized path planning with potential functions*. This variation of potential field methods was developed for high dimensional configuration spaces. It uses randomization to avoid being trapped in local minima.

1. Best-first motions and random motions
2. Randomized Path Planner (RPP)

Reading

Chapter 7.5, Latombe.

Additional References

Robot Motion Planning: A Distributed Representation Approach, J. Barraquand and J.-C. Latombe, *International Journal of Robotics Research*, Vol. 10, No. 6, pages 628–649, December 1991.

Next Class

Collision detection.