

Undergraduate Summer Research Grant Program 2005
Research Plan
Due: June 13, 2005

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Work Schedule: 40 hours per week

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Lab Location: 414B HRBB

Research Topic: Motion Planning: Robotics

Research Goals: In motion planning there are several different planners that are used to generate paths for the robots. Nodes are placed in various locations and the planners try to create a path that will allow the robot to make it to its goal configuration without colliding with the obstacles. Currently they use a motion planning method that divides the environment into separate sections and use different planners to create a roadmap. My research goals are to implement and evaluate methods for connecting the roadmaps that are created by different planners.

Tasks: 1. Change the Rotate_At_S function
2. Implement method for connecting roadmaps generated by different planners.
3. Evaluate methods implemented

Deliverables:

Dates:

- | | |
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| <u>1. Rotate_At_S function</u> | <u>07/08/05</u> |
| <u>2. Implementation of connection methods</u> | <u>07/30/05</u> |
| <u>3. Analysis of results of applying connection methods</u> | <u>08/05/05</u> |

Signatures:

Student Researcher

Date

Faculty Mentor

Date