



Robotic Path Planning

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What is Robotic Path
Planning ??

Autonomous, Continuous
domain, Constraints

Algorithms to Implement

Grid Based Search

- Graph Based Algorithm
- Depth First Search
- Breadth First Search
- Visibility Graph Method
- Some Heuristics

Problems with Grid Based Search

- P Space
- Exponential time in worst case
- If grid points are very small.

Implementation of some Algorithms

Wall
Follower
Algorithm

A
Variant
of Depth
First
Search

Convex Optimization in Robotic Path Planning

Special Case: When the destination is given with lot of obstacles in between.

LP Formulation of the RPP with
shortest path in Grid.



Is Path
Planning a
Hard problem
in context of
Algorithms ??

Thank You