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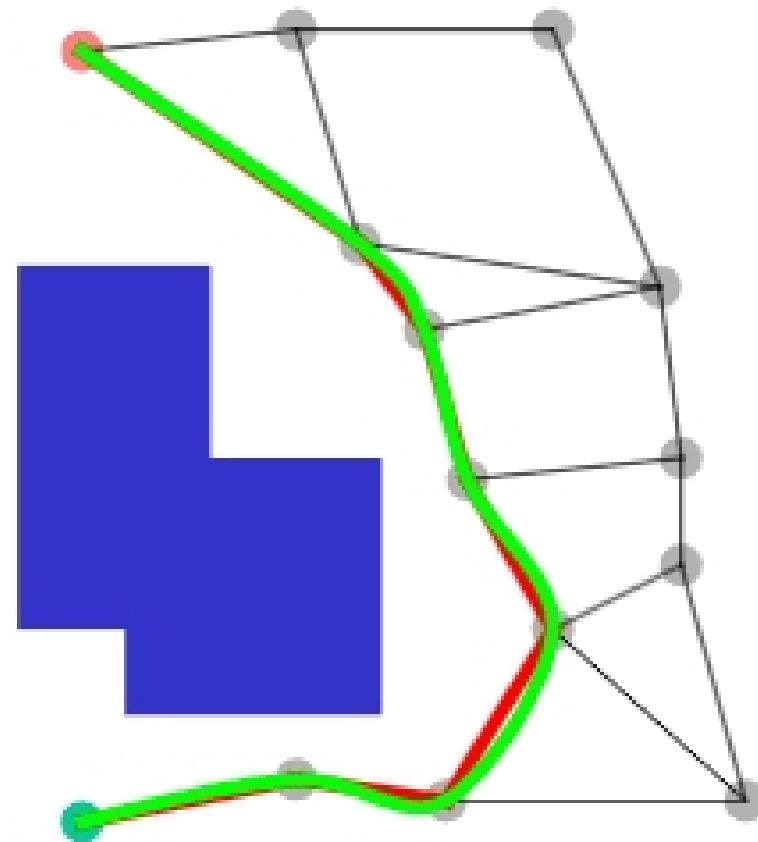
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# Kinodynamic Path Planning

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# Where PRMs Fall Short

- Using PRM
  1. Construct roadmap
  2. A\* finds path in roadmap
  3. Must derive control inputs from path
- *Path itself is not enough:  
need control inputs*
- *Cannot always execute  
an arbitrary path*



# Path Planning in the Real World

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## Real World Robots

- Have inertia
- Have limited controllability
- Have limited sensors
- Face a dynamic environment
- Face an unreliable environment

**Static planners (ex. PRM) are not sufficient**