CS354

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Sample Discussion Questions

- Reading Comprehension:
    - What is the advantage of the T-RRT algorithm over A*?
    - What shortfall of the existing RRT algorithm does this paper attempt to address?
    - Before a new node can be added it needs to pass two tests: TransitionTest and MinExpandControl. What is the role of these two tests? How do they differ?

More questions

- Critical Thinking:
  - A* is efficient because it uses a heuristic function to bias exploration. How do the cost functions describes here compare to heuristic functions in A*? Do they play a similar role in increasing the efficiency of the algorithm? If not, is that a problem?
  - The authors describe several parameters that must be chosen in order to implement the algorithm: α, nFailMax, exploration/refinement ratio, δ. Is it clear from the paper how these parameters should be set? Is it possible to tell how sensitive are the results to the specific values of these parameters?
- General questions we would ask of any paper:
  - What are the most significant strengths of this paper?
  - What are the most significant weaknesses of this paper?
  - Is this paper suitable for publication? (Novel, Valuable and Correct)