Autonomous Nano Technology Swarm (ANTS) – the Tet

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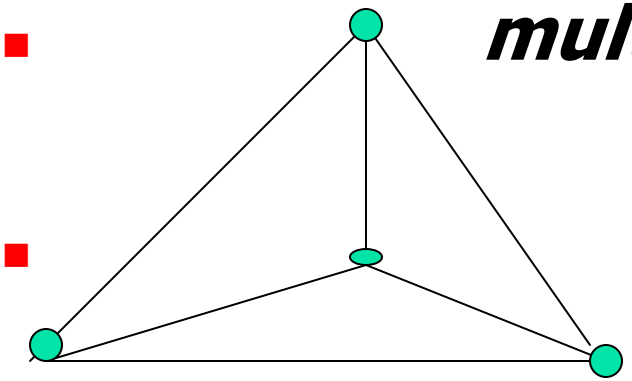
Tet Walker

- The goal is to model this tetrahedron structure as a
  - ***multi-agent system***
  - 

Goals, Objectives, Benefits

- Why
  - Current tet models are operated manually. This will be impossible when we approach using a 12-tet model as an alternative approach to wheeled robotic devices for lunar or Mars exploration. This research is laying the ground for autonomous 12-tet operations.

Approach

- How
  - The process that is being followed is to first model a point in space as a single-agent system, then model a line in space as a two-agent system, then model a triangle as a three-agent system and finally to model the tet as a four-agent system

Results, Status, Next Steps

- Next steps/target applications
  - Currently work is proceeding on the tet modeling. An initial prototype displaying the behaviors of the point, line, triangle and tet is in development. Results ffrom this effort will an input to a follow-on effort addressing the 12-tet in the Robotics Internship Program this Summer.