**Proposal outline**

* 5 pages + 1 page for reference
* Include figures
* PDF only, CC all team members
* Subject : [comp150] Project Proposal
* Lastname1Lastname2Lastname3\_proposal.pdf
* When citing, use the citation button, and choose one which shows all authors.

**Brainstorming**

* We will be using ROS to simulate robot going through a map.
* The map
  + The map will look like a maze consisting of a starting point and other unique points representing particular structure in a town, such as hospital, police station, school etc.
  + We will make a couple in ROS.
* Reinforcement learning(Computer vision)
  + Robot should learn to navigate through the map using computer vision.
  + Adaptive to change in environment.
    - Color detection of a wall and floor.
  + Through computer vision, map out the maze.
* Shortest path algorithm
  + Types of algorithms
    - <https://en.wikipedia.org/wiki/Shortest_path_problem>
  + Two modes
    - Exploration mode(find mode)
      * If the given unique point is not yet known to the mobile robot, explore the map until it finds the unique point and store the path by running the shortest path algorithm.
    - Goto mode
      * Given the current information of the particular map, find the quickest path to the finish and measure the time.