(2.2) There are two interpretations: C-space is 2D, or the robot moves in a 2-D world.
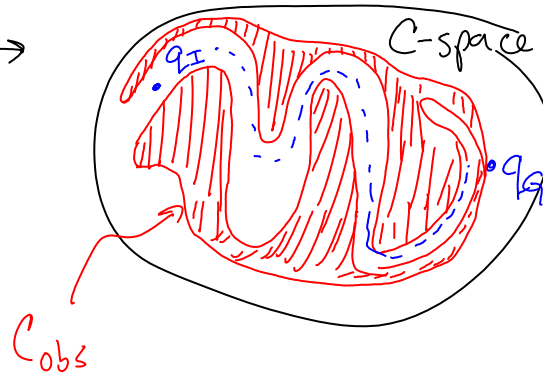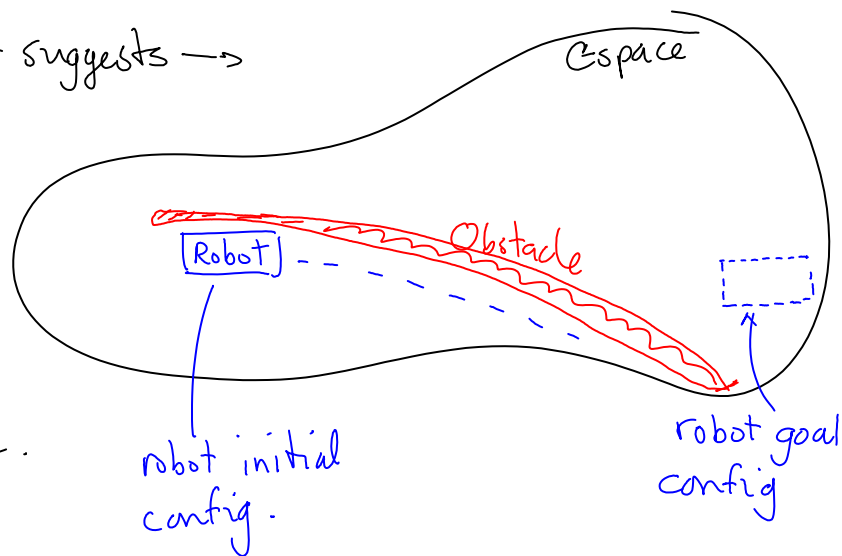
The former suggests →



The latter suggests →

robot will move to dead end then backtrack.



(2.6a)

The point of this problem (communication with LaValle) is to realize the symmetry of searching from $X_G$ to $X_I$. Remember that in planning problems you do not begin with the graph.

You build that as you go. Therefore Dijkstra's alg could find the opt. soln. faster backwards than forwards. Keep in mind though, that systems w/ friction (and other non-reversible systems) may have a solution in one direction, but not in the other.