check\_collision.m check whether the robot links and the obstacles collided, by calculating the distance between the obstacles and the points of the contour the links. If the distance is smaller than (link radius + sphere radius), then there is a collision.

Based on check\_collision.m, check\_edge.m added q\_start and q\_end. It runs check\_collision on a set of linearly distributed points along the path.

If the resolution of either of these 2 functions is too low, then collisions could be missed. The points between checked points may have collision.