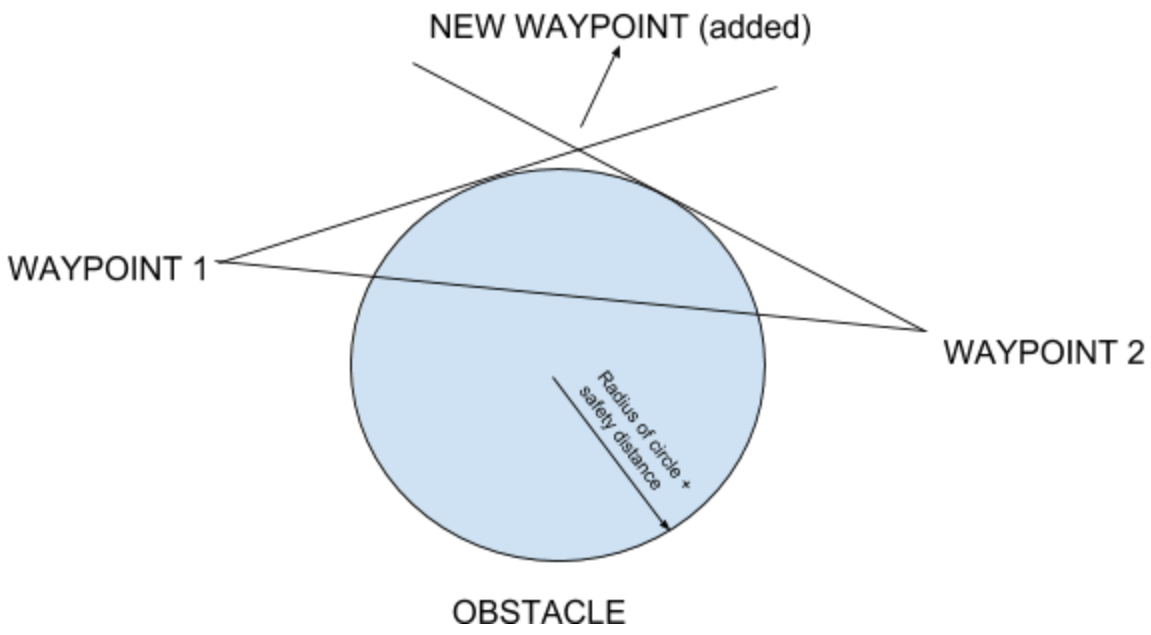

We use this simple algorithm shown in figure, to avoidance circular static obstacles. Even though, it is a really simple algorithm that takes almost no time to generate waypoints in order to maneuver through given waypoints without hitting the obstacles but it has limited accuracy and doesn't work as well as other complicated methods like RRT. In this we follow the following steps:

- Read the initial waypoint file and join then using straight lines finding out which one has a safe path between them that doesn't pass through the obstacle, adding those points directly to the new waypoint file.
- The ones that have a collision with the obstacle are not directly added to the new file.
- Using geometry of circles we find out the point of intersection of tangent to the circular obstacle with a radius greater than its actual radius to ensure more safety.
- This point is added between the two waypoints so that the drone travels to that point before moving from one waypoint to other. In this way, we make sure that we avoid all circular static obstacles.