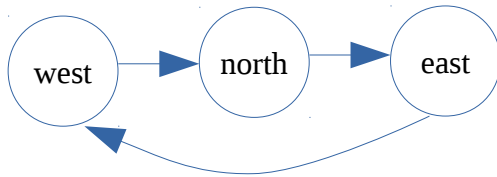


Strategy followed to reach the goal

Basically what I did was to create the following Finite-state machine for the obstacle avoidance:



The algorithm always makes the robot to point to the goal. Then, it tries to go straight. If the robot found an obstacle it will try to avoid it using the Finite-state machine. At first it tries to go west(left) two units and if it doesn't find an obstacle on the way it will try to reach again the goal going straight and so on until it found an obstacle going west. If it found an obstacle it will move to the next state of the machine but before that it will try to reach the goal again. In the north state, it will go north until it found an obstacle. During this state, the robot will not try to reach the goal until if found an obstacle. In the east state, it will be the same as the west stage but this time it will try to go to the east. Note that only will try to reach the goal during the west, east states and during the transitions between states.