

Path planning write up

Introduction:

The idea of this assignment is to plan a path on a highway with traffic.

My Approach:

My understanding of this project can be broken down into the following parts:

1. Generate trajectory for the robot car to follow
2. Make sure the robot car doesn't hit other cars on road
3. Efficient in completing a lap

In order to accomplish the above task, the following function are needed:

1. Sense of what lane the car is in (getLaneNum)
2. When travelling less than speed limit, which lane has a faster moving traffic (getChangeOptions, getLaneSpeed, getFastestLane, bestLane)
3. Decision making (cost, inefficiencyCost, collisionCost)
4. For path planning, I used the same approach demonstrated in project Q&A.

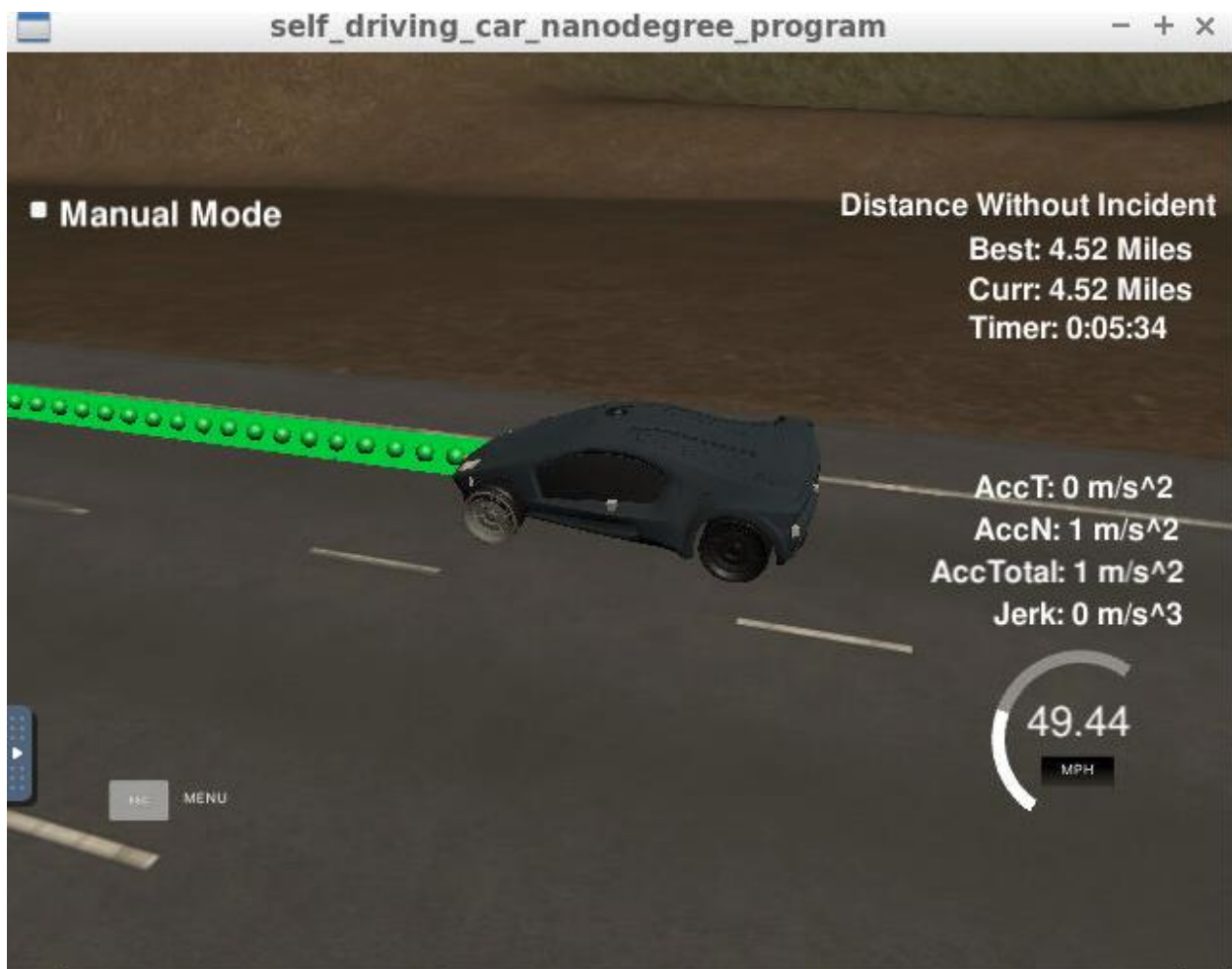


Figure 1 Image showing results from my approach.