

I did the following changes to the standard class:

- Intelligent turn control based on laser angle, so robot can choose the best turn side on every turn, laser data angle is sortened by -1.14 in the most left measurement and 1.14 in the rightest one, so using a flag in 0, we can tell the robot to choose between left and right turns, I did this one expecting the robot motion seems less dummy and more realistic, and is the result I got.
- Acceleration system, based on a real driver, on larger speeds, sensors are activated between a sort period, in order to control the speed, speed starts at 300 mm/s, and on large straight paths, it's up to 900, the speed is the denominator in a sleep sentence, so it's sleeps less when speeds are higher, this one aim was to approach more map in the same time, so swept component results improve.
- Trimmed laser data, to get a better obstacles info, this one is neccesary so the threshold can be better tunned and for the robot not to being dumb on the corners.

With the changes described above, I got the following result:

Attempt 1: 64.8 %

Attempt 2: 60.8 %

Attempt 3: 61.44 %

Attempt 4: 60.48 %

Attempt 5: 61.28 %

Averaged: 61,76 %