How to run the trailer scenario

CARS

February 28, 2016

The following steps are needed in order to run the trailer scenario:

- Set the scenario to be trailer in the GUI, this is done by pressing the scenario button and then choosing trailer in the drop down menu. Note that this setting is not remembered and needs to be set every time the GUI is restarted.

- The correct reference path needs to be selected. This is done by selecting the reference track called **easyReverse.txt**. The track will not look correct in the GUI but will be correctly interpreted by the program, this can be confirmed by turning on the projector. Note that the **gain** must be set to **0.5**, this is because the reference track and controller are tuned to work with this gain. If the track is not displayed correctly by the projector make sure that the trailer scenario is selected.

- In car settings **remove** all cars except for car0, set car0 to be in auto mode. Do **not** include other cars and set them to *not connected*. The reason that the other cars need to be removed is that the detection algorithm currently only assumes one car. There is no check to confirm which car the trailer belongs to, the algorithm will assume that the first car and the trailer are connected.

- Before hitting the start button make sure that the car is turned on, the trailer is connected to the car and that the car and trailer are placed on the track in a reasonable way. This means that the angle between the car and trailer should be close to zero and they should be placed on a straight part of the track.

- If the car and trailer crashes the best thing to do is to stop the program and place the car and trailer on the track in a reasonable way before starting the program again. Currently there is no way to automatically recover from a crash.

- If there is a problem make sure that all the previous steps are done correctly and check the system description for common problems and solutions