

Computer Assisted Learning Environment

- Learning the steering behavior of articulated vehicles
- Systematic training of basic maneuvers
- Driver education in driving schools and forwarding companies
- Enhance the driver Quality
- Advance the attractiveness of driving schools

Economics

- Reduce operating costs
- Reduce training costs
- Low investment costs
- Increase efficiency

Product Characteristics

- Scientific based motion modell
- Simulation in real-time
- Innovative engine accoustics
- Available in different variants

Variety of Vehicles

- Truck with central-axle trailer
- Truck with turn table trailer
- Semi-Trailer combination
- Truck with swap trailer
- Longliner / Gigaliner

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Fachbereich 4: Informatik

State-aided by



Reverse Driving Simulator for Articulated Vehicles



A driving simulator for

- Safe
- Ecologically
- Economical

learning to reverse articulated commercial vehicles.

For driving schools and forwarding companies



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Reversing – with Trailer?

Reversing articulated vehicles is said to be very difficult and challenging due to the complicated steering and driving behavior. Especially student drivers and novice drivers are often not up to the task of reversing. Therefore, reversing maneuvers are one of the most difficult parts of the practical driving school training. Thereby, about one-third of all driving lessons are spent for reverse driving maneuvers.

Simulator Based Driver Education

With the aid of the reverse driving simulator the basic reverse driving maneuvers can be learned and trained efficiently, stress-free, and cost-effective. In relation to the conventional driving school training, the reverse driving simulator comes up with all usual kinds of trucks with trailer. Hence, the driver training with articulated vehicles with different steering behavior leads to an advanced driver qualification.



*Rückfahr Simulator
PLUS as desk configuration*

Bring Down Costs

Due to the simulator training the student driver needs less driving lessons in relation to the conventional real truck-based driver training. This reduces the driving schools operating expenses for reverse driving maneuvers up to 50%. In this context simulator based driving lessons can be offered considerably cheaper than conventional driving lessons with real trucks. Therefore, the training costs of student drivers can be reduced as well.

Competitive Advantage

Additionally to the qualitative and economic advantages, the driving schools attractiveness will be enhanced by using the reverse driving simulator. Especially young people are attracted by new technologies. This in turn leads to a growth in business volume and market share.

Supported Vehicles

The reverse driving simulator can be used to train on all usual commercial vehicles with trailer. Therefore, the simulator comes up with a broad variety of vehicles, e.g. trucks with central-axle trailer, a semi-truck with semi-trailer, a truck with a turn table swap trailer. Moreover, the simulator is equipped with a giganliner. Furthermore, it's intended to extend the vehicle pool so that the student driver can train the steering and driving behavior of buses or special vehicles as well.



*Analyze the driving
maneuver from different
points of view*

Different Views

The reverse driving simulator provides a set of usual views in commercial vehicles like the view through the windshield, the left and right main rear view mirrors, the left and right wide angle mirrors, and the kerb side mirror. In addition, the simulator provides the view of a rear view camera.



*Combined visualization
of Rückfahr Simulator
BASIC*

Available in Different Variants

The reverse driving simulator is currently offered in two different variants. The variant Rückfahr Simulator BASIC is adequate for companies with a lower number of driving lessons. Within this variant all views are integrated and visualized on one computer display. The second variant, the Rückfahr Simulator PLUS, is available in two configurations which are dedicated for larger driving schools and education centers. All views are distributed on three displays so that the driver perceives a more realistic driving experience. In the desk configuration the simulator is arranged on a table or writing desk. In the second variant the simulator is integrated in a complete driving stand.

Increased Driver Quality

With the aid of the reverse driving simulator drivers can learn and internalize the steering and driving behavior of all usual commercial vehicles with trailer, for instance trucks with central-axle trailer, semi-trailer, swap trailer up to a giganliner. In addition to basic reverse driving maneuvers, challenging maneuvers like changing a swap trailer can be trained as well. Equipped with these driving skills the drivers can be deployed flexible in all kinds of commercial vehicles.

Reduce Damages

The complicated and confusing steering behavior often leads to steering mistakes which again will possibly lead to damages to property or people. Particularly the rear electric lighting, the drawbar, the underride guard, or properties in the surrounding area of the vehicle are often damaged. In particular, the damages are mostly small but the annualized rate is remarkable. By an enhanced driver education the reverse driving simulator can contribute to traffic safety, a reduction of damages and operating expenses.



*Rückfahr Simulator PLUS
with a driving stand*

Train Complex Driving Situations

Drivers are often faced with lack of space in the customers company or the own forwarding company. In these situations the drivers have to cope with very difficult driving maneuvers. The simulators virtual world can be adapted according to many aspects so that local circumstances can be integrated. For this reason the driver can train real maneuvers without any risk.

Recruiting - Alternative Qualification Test

In the context of personal recruitment the simulator can be used to test the qualification and driving skills of applicants. Moreover, weaknesses of experienced drivers can be discovered and specifically eliminated.