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VR Truck Docking Simulator

Motivation

Parking a truck backwards to a dock door for loading and unloading can be challenging.

Logistics companies experience significant costs due to damage caused by vehicle combinations that are in the process of 'docking'.

Goals

In the scope of VISTA project, we are developing a Virtual Reality (VR) Truck Docking Simulator which offers a safe and engaging learning environment to help develop more confident and efficient drivers.

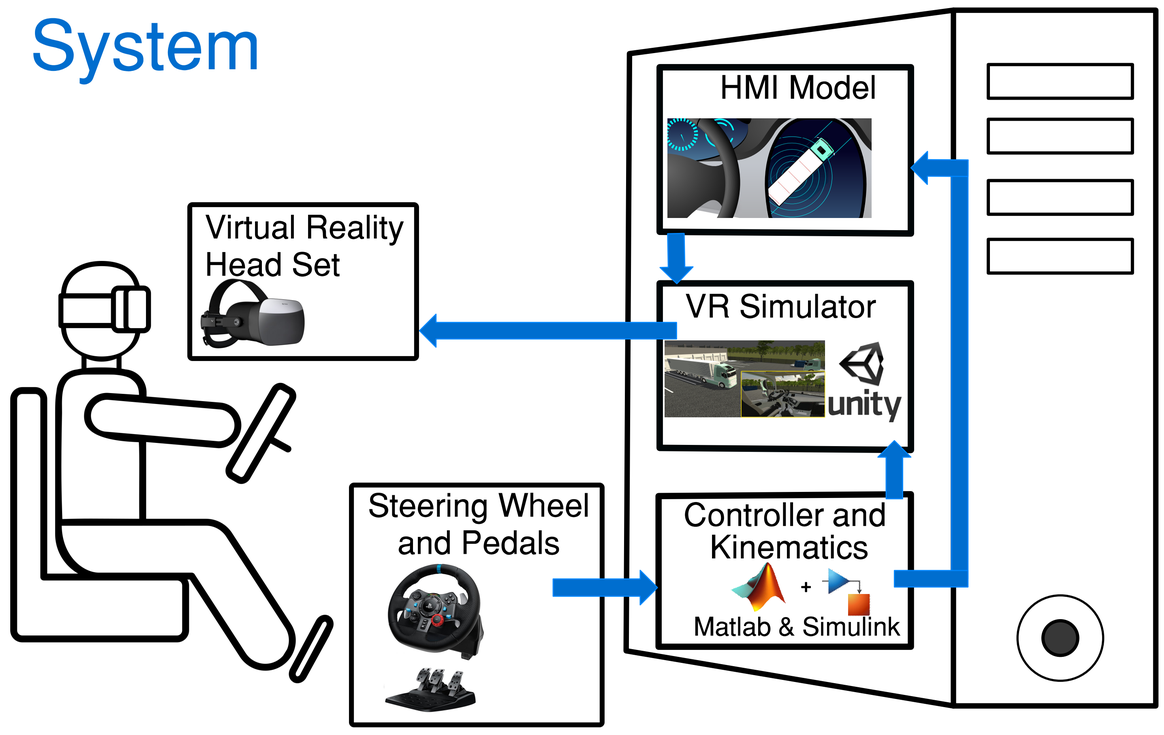
The Simulator puts the driver on a virtual truck in a realistic distribution center.

In this context, drivers can experience real-world challenges and receive support from a virtual assistant which is capable of offering valuable guidance, e.g. providing the current distance to the dock or instructions to follow an optimal, feasible path.

Further Information

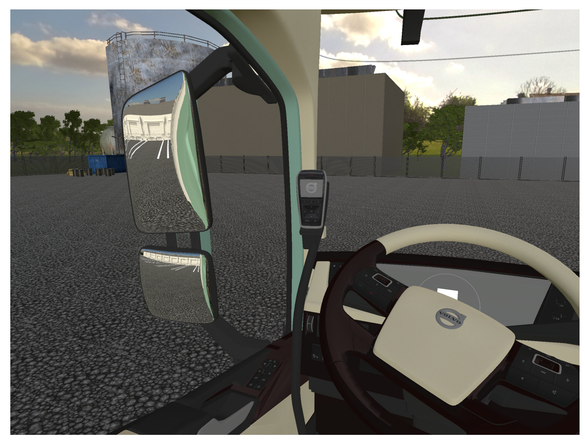
- Visit VISTA website at vistaproject.eu
- The VISTA project is funded by the INTERREG programme Germany – Netherlands

System



Docking Use case

- Experience the docking manoeuver in a realistic distribution center
- Explore the environment dynamicity, e.g. , interaction with other moving entities (other trucks and persons)
- Exploit key user experience factors for different VR Head Sets setups including FOV, Pixel Density, Hand tracking, Eye-tracking



Additional Use cases

- Virtualising the HMI model which provides the driver with the necessary information and instructions
- Exploiting the simulator as a platform to evaluate VISTA components, e.g. HMI Model
- Implementing computational models that learn from multimodal data received from the VR environment (e.g. eye-tracking, position data, etc.) in order o to predict driver's decision behaviour

VISTA