

A VIRTUAL REALITY HELMET

FOR RACING SIMULATORS



Cesys develops and produces high-end and innovative racing simulators for the entertainment industry. Recently, the company started using Virtual Reality on their racing simulators. Currently, a standard VR headset (Oculus Rift) is used, but it should preferably be a dedicated VR Headset that matches the experience of the racing simulators.

A dedicated VR headset for these racing simulators was designed in this graduation project. This dedicated VR headset can be seen as an integration between a racing helmet and a VR headset: A VR Helmet. The look, feel and use of the VR helmet is similar to a racing helmet. However, different from a helmet, it is fully adjustable to various sizes of heads. By rotating the two knobs at the back and top of the helmet, the size can be adjusted.

The VR components are integrated in the visor of the VR Helmet. The visor can be used just like a normal visor in a helmet, only before rotating, the visor needs to be pushed forward. Next to housing VR components, the VR Helmet also houses two speakers and a microphone for audio display and communication between the operator and/or fellow racing drivers.



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