

Press Release

In a Virtual Reality simulation, haptic devices allow a more tangible and physical interaction with the virtual environment by providing tactile feedback. Most of them usually have to be permanently held by the user and do not allow for touching virtual object in a natural fashion. Yet, many applications require hand-free interaction. This is particularly the case with simulations that require tactile exploration of the physical properties of virtual objects. Due to the lack of relevant solutions, it was until now impossible to carry on such a natural haptic interaction in a virtual reality simulation.

In collaboration with Dr. Kemeny, Expert Leader RENAULT of Immersive Simulation and VR, CLARTE has developed LobbyBOT, an encountered-type haptic device that allows hands-free interaction and disrupt the capabilities offered in typical Virtual Reality simulations. LobbyBOT relies on a mobile physical prop, actuated by a cobot, that constantly follows the user hand, and encounter it only when needed, e.g. to simulate a contact between the user and the virtual environment. LobbyBOT haptic device may be used, for example, to validate materials associations and choices during early perceived quality assessments performed on a car interior virtual prototype. Not only the user can see the virtual car interior, but LobbyBOT allows touching & feeling it. Beyond perceived quality assessments, LobbyBOT opens new perspectives for the field of virtual prototyping: many use-cases that cannot currently be handled through simulation may become accessible (e.g. ergonomic assessment of a virtual prototype, product customization, usability...) in a near future.



About CLARTE: Since 1996, CLARTE has been a technology resources centre specialized in virtual and augmented reality and emerging technologies with a strong focus on industrial applications. CLARTE participates in the economic development of businesses with, for main vectors: innovation and consultancy. As such, CLARTE invents, designs and builds new technologies for tomorrow's augmented worker. CLARTE also provides consulting and training on virtual and augmented reality technologies.

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