

# Riding with Virtual Reality

With over 30 years of experience in developing advanced simulation systems, ST Electronics is no stranger to Virtual Reality (VR).

Simply defined, VR is an artificially created environment where the participant “suspends belief” and accepts it as the real environment. As such, VR is an effective tool for simulation training as it enables users to familiarise themselves with the controls and operational procedures of any complex system that they have to manoeuvre, such as a plane, helicopter or ship.

Similarly, the immersive experience offered by VR environments makes it a captivating medium to bring across educational concepts to the user.

ST Electronics unveiled two such VR applications at its recent exhibitions, showcasing how VR can be used to enhance the learning experience for the STEM (Science, Technology, Engineering and Mathematics) curriculum.

## TeLEOS-X SPACE MISSION

Ever wondered how it feels like to go on a space-walk, drift into a void of space and look at Earth from far? TeLEOS-X Space Mission promises visitors just that.



Experience a spacewalk in a mission-based gameplay.



TeLEOs-X Space Mission exhibit @ CommunicAsia 2016.

The VR game is capable of simulating an astronaut’s spacewalk in a Manned Manoeuvring Unit (MMU). In this two-player mission-based game, one player is caught in a perilous situation with limited oxygen supply. To survive, the players have to navigate through space, locate their partner so that one player can hook on the spare oxygen tank for the other.

While exploring the space environment, players intuitively experience the laws of opposing forces in physics. A rotation made with the controls without a counter-force applied would essentially send the player into a constant tailspin!

## FLIGHT CRAFTER

Ever dreamt of designing your own unique aircraft? With Flight Crafter, visitors get to personalise their virtual aircraft and fly them in an exciting simulated test-flight.



Aircraft selection module.



Visitors trying out Flight Crafter @ Singapore Airshow 2016.

In this VR solution, participants have to apply learnt concepts and select various aircraft components to build their virtual aircraft. These components include fuselage, airfoil, and wing type, all of which would determine the eventual airworthiness of the plane.

After finalising the design, players don a VR headset and fly their aircraft through a challenging terrain.

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