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Dynamics and control system of the new dynamic flight simulator

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Current Dynamic Flight Simulators (DFS) are used in combat pilot training due to safety and cost reasons. These systems are not perfect, having some undesirable side effects (motion sickness due Coriolis force). A new concept of DFS has been proposed, in previous work, to address the motion sickness problem, adding extra degrees of freedom. Although it has been shown that for each axis, the proposed DFS is able to simulate flight up to 9G's, a multibody approach is closer to the forces of a real system. This work presents a 6dof multibody dynamics simulation and control system of the proposed DFS, testing the feasibility of the concept.

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