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THE FRENCH AEROSPACE LAB

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LABSIM - Capabilities

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Following the VR principles, the LABSIM capabilities can be classified into 3 categories

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Sensory-motor devices

"Exploring next-gen piloting interfaces"

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Biophysical Sensors

"Quantifying & modeling the human behavior"

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Biophysical Sensors

"Quantifying & modeling the human behavior"



Expert Models

"Modelling the flight behaviour with high fidelity"

LABSIM-> Capabilities



Sensory-motor devices



- Wittenstein © active side-sticks for flight envelop protection & obstacle avoidance
- Multi-touch devices with up to ten touch-points
- Haption Virtuose © 6-dimensional robot arm for disruptive interaction means
- hand free gesture capture through LeapMotion © devices
- AR & VR head-mounted display





Biophysical Sensors



- Optitrack © 120Hz infra-red based mo-cap device
- SmartEye © binocular 120Hz eye-tracker
- Biopac © with 16 channels : EEG, EMG, ECG, GSR, force sensor
- BrainVision © 96 channels EEG system



LABSIM-> Capabilities



Expert Models



- ART FlightLab © (aircraft, rotorcraft, UAV's)
- ship deck modeling
- Flight control systems
- generic avionics models
- & more ...



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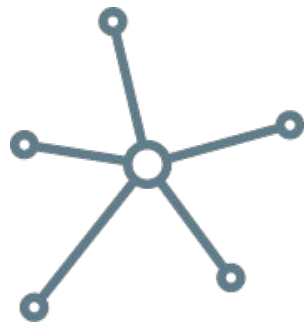
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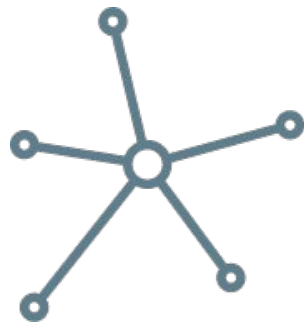
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