

Materials List for

Evaluating Flight Performance and Eye Movement Patterns Using Virtual Reality Flight Simulator

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Materials

Name	Company	Catalog Number	Comments
3D engine SDK	Epic Games	Unreal Engine 4 GameAnalytics Unreal SDK	This SDK is a powerful yet flexible free analytics tool designed for games.
CPU	Intel	IntelCore i9	One of the most powerful CPU on the mainstream market.
Eye tracking SDK	Tobii	Tobii XR SDK	This SDK provide device agnostic access to eye tracking data to allow development for headsets from many different hardware vendors and is not limited to devices using Tobii Eye Tracking hardware.
Eye tracking software	Developed by the research team		A program that tracks the movement of a person's eyes while they are using a virtual reality HMD.
FlySimulator program	Developed by the research team		A software that simulates flying experiences in a virtual environment, using VR HMD and hand-held controllers.
Graphics card	NVIDIA	GeForce RTX 3090 10496 NVIDIA CUDA Cores 1.70 GHz Boost Clock 24 GB Memory Size GDDR6X Memory Type	One of the most powerful graphics card on the mainstream market.
Operating system (OS)	Microsoft	Windows XP	An operating system (OS) developed and exclusively distributed by Microsoft Corporation
Replica control panel	THRUSTMASTER	2960720 2971004 2962072 2960748 2960769	U.S. Air Force A-10C attack aircraft HOTAS
Replica joystick	THRUSTMASTER	2960720	U.S. Air Force A-10C attack aircraft HOTAS
Replica pedal	THRUSTMASTER		TPR pendular rudder
Replica throttle	THRUSTMASTER		U.S. Air Force A-10C attack aircraft HOTAS

Screen connected to PC	Redmi	RMMNT27NF, 27-inch, 1920 X 1080 resolution ratio	Screen allows the experimenter to simultaneously view what is happening in the VR HMD
Screen recording software	OBS Project	OBS Studio Version 28.0	A free and open source software for video recording and live streaming
Statistical power analysis software	Open-Source	G*power Version 3.1.9.6	A free and user-friendly tool for estimating statistical power and sample size.
Statistical software	IBM	SPSS Version 24.0	A powerful statistical software platform
Versatile statistics tool	GraphPad Software	GraphPad Prism Version 9.4.0	A versatile statistics tool purpose-built for scientists-not statisticians
VR app store	HTC Corporation	VIVE Software 2.0.17.6 / 2.1.17.6	An app store for virtual reality where customers can explore, create, connect, and experience the content they love and need.
VR head-mounted display (HMD)	HTC Corporation	VIVE Pro Eye	A VR headset with precision eye tracking
VR software	Steam	Steam VR Version 1.23	A tool for experiencing VR content on the hardware