

Materials List for

Setup for the Quantitative Assessment of Motion and Muscle Activity During a Virtual Modified Box and Block Test

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jove.com/video/65736

Materials

Name	Company	Catalog Number	Comments
Armless Chair	N/A		A chair for subjects to sit in should be armless so that their arms are not interfered with.
Computer	Dell Technologies		Three computers were used to accompany the data acquisition equipment.
Leap Motion Controller	Ultraleap		Optical hand tracking module that captures the hand and finger movement. The controller has two 640 x 240-pixel near-infrared cameras (120 Hz), which are capable of tracking movement up to 60 cm from the device and in a 140 x 120° field of view. This device was attached to the VR headset or secured above the head during movement.
MATLAB	MathWorks, Inc.		Programming platform used to develop custom data acquisition software
Oculus Quest 2	Meta		Immersive virtual reality headset equipped with hand tracking ability through 4 infrared build-in cameras (72-120 Hz). Can be substituted with other similar devices (ex. HTC Vive, HP Reverb, Playstation VR).
Oculus Quest 2 Link cable	Meta		Used to connect the headset to the computer where the VR game was stored
PhaseSpace Motion Capture	PhaseSpace, Inc.		Marked motion capture system, consisting of a server, cameras with 60° field of view, red light emitting

			diode (LED) as markers, and a calibration object
Trigno Wireless System	Delsys, Inc.		By Delsys Inc., includes EMG, accelerometer, force sensors, a base station, and collection software. The Trigno-MATLAB Application Programming Interface (API) was used to develop custom recording software.
UnReal Engine 4	Epic Games		Software used to create and run the modified Box and Block Task in VR