

Materials List for:

Novel 3D/VR Interactive Environment for MD Simulations, Visualization and Analysis

Benjamin N. Doblack¹, Tim Allis¹, Lilian P. Dávila¹

¹Materials Science and Engineering, School of Engineering, University of California Merced

Correspondence to: Lilian P. Dávila at ldavila@ucmerced.edu

URL: <https://www.jove.com/video/51384>

DOI: [doi:10.3791/51384](https://doi.org/10.3791/51384)

Materials

Name	Company	Catalog Number	Comments
Samsung 61" 3D-capable high definition DLP TV	Samsung	http://www.samsung.com/us/video/tvs	See Protocol Section 3 (Step 3.2) (Large format 3D-capable TV)
Alienware Area51 750i modeling computer	Alienware	http://www.alienware.com	See Protocol Section 1 (Step 1.1) (Modeling computer)
HP EliteBook 8530w tracking computer	HP	http://www.hp.com	See Protocol Section 2 (Step 2.3) (Tracking computer)
V100:R2 IR tracking cameras (3)	Naturalpoint	http://www.naturalpoint.com/optitrack/products/v100-r2/	See Protocol Section 2 (Step 2.1) and Reference [4] (Tracking cameras)
OptiTrack Tracking Tools IR tracking software	Naturalpoint	http://www.naturalpoint.com/optitrack/software/	See Protocol Section 2 (Step 2.3) and Reference [4] (Tracking software)
3D Goggles and 3D TV IR sync emitter	Ilixco	http://www.i-glassesstore.com/dlp3d-wireless-2set.html	See Protocol Section 3 (Step 3.2) and Reference [5] (3D goggles)
Wiimote 3D controller	Nintendo	http://www.nintendo.com/wii	See Protocol Section 3 (Step 3.2) (Wiimote)
VRUI, NCK and associated 3D/VR modeling software	Open source software	http://idav.ucdavis.edu/~okreylos/ResDev/NanoTech/index.html	See Protocol Section 1 (Step 1.3) and References [1,6] (VRUI, NCK)
LAMMPS molecular dynamics software	Open source software	http://lammps.sandia.gov/	See Protocol Section 5 (Step 5.2) and Reference [12] (LAMMPS)
NanospringCarver program code and files	UC Merced - open source	http://tinyurl.com/qame8dj	See Protocol Section 5 (Step 5.4) and References [16-17] (NanospringCarver)
MATLAB GUI files	UC Merced - open source	http://tinyurl.com/qame8dj	See Protocol Section 5 (Step 5.4) and References [16-17] (NanospringCarver)
Atomistic bulk glass input file	UC Merced - open source	http://tinyurl.com/qame8dj	See Protocol Section 5 (Step 5.4) and References [16-17] (NanospringCarver)