

**VIRTUAL REALITY SYSTEMS**

<i>VR System Type</i>	<i>VizMove Turnkey VR</i>	<i>VizMove + Biofeedback Utility</i>	<i>VizMove + MP System with wireless BioNomadix + Biofeedback Utility</i>
Seated Systems	VR-SEAT	VR-SEAT-BIO	VR-SEAT-MP
Standing Systems	VR-STAND	VR-STAND-BIO	VR-STAND-MP
Walking Systems	VR-WALK	VR-WALK-BIO	VR-WALK-MP
Projection Systems	VR-PROJ	VR-PROJ-BIO	VR-PROJ-MP

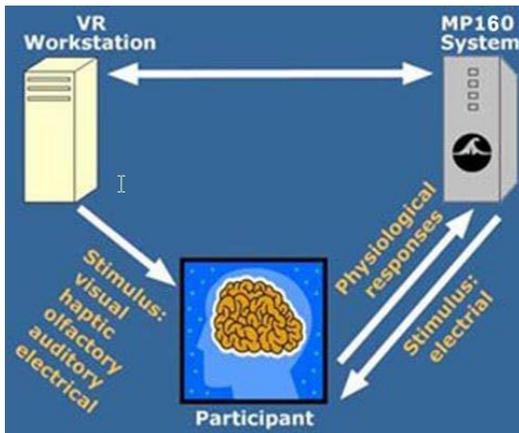


BIOPAC VR solutions record and analyze physiological, behavioral, and subjective response data in realistic, immersive environments that would be impossible or prohibitively expensive in the real world. Systems are provided to meet specific research needs and lab space for single or multiple users: participants can be seated, standing, walking or viewing a projection.

VizMove Virtual Reality Systems allow you to start running a high-res virtual reality lab from the moment you unpack the box. A great solution for starter VR labs needing to expand stimulus delivery capabilities, VizMove Systems include everything required to create and experience interactive virtual reality applications for a variety of protocols. VizMove is available on its own, with a biofeedback utility (see BIO systems), or with an MP Research System (see MP systems). Add olfactory, haptic, and electrical stimulus for an incredible degree of realism.

<b>System Components:</b>	<b>VR-SEAT</b> Seated	<b>VR-STAND</b> Standing	<b>VR-WALK</b> Walking	<b>VR-PROJ</b> Projection
<b>High performance rendering computer</b>	x	x	x	x
<b>VR Headset:</b> Latest state-of-the-art headset and VizConnect output interface	x	x	x	-
<b>3D Projectors &amp; 3D Glasses</b>	-	-	-	2 x shorthrow 5 x glasses
<b>Controller:</b> Navigate the virtual world while seated	gamepad	wand	wand	wand
<b>PPT Motion Tracking System:</b> max estimated tracking area	-	2 cameras up to 3m <sup>2</sup>	4 cameras up to 7m <sup>2</sup>	3 cameras
<b>Vizard:</b> Build complete, interactive VR applications and dozens of environments	x	x	x	x
<b>Portable</b> (laptop) option available	x	x	x	-

**VR BIOFEEDBACK SYSTEMS: VR-SEAT-BIO, VR-STAND-BIO, VR-WALK-BIO, VR-PROJ-BIO**



These VR Systems combine VizMove Virtual Reality Systems with a biofeedback linking utility to tightly synchronize VR world events with real-time physiological response data from your existing MP160/150 Research System, allowing you to change the environment in real time, based on the participant's responses.

**VR WITH MP SYSTEM: VR-SEAT-MP, VR-STAND-MP, VR-WALK-MP, VR-PROJ-MP**



These VR systems include VizMove plus an MP Research System (MP160 hardware and AcqKnowledge software) with two wireless BioNomadix dual-channel signal sets of your choice for real-time wireless ECG, EMG, EDA, accelerometry, or other biometrics.

➡ Click to view a [VR System Diagram](#)

**VIZARD VR DEVELOPMENT PLATFORM**

*Vizard's user-friendly IDE enables anyone to build sophisticated VR simulations. Vizard comes equipped with beginner tutorials to get you started.*

Rapidly create a wide range of immersive 3D experiences with the most powerful, innovative virtual reality development platform. Vizard has everything you need to build complete, interactive VR applications. The software supports all standard VR hardware and easily integrates with other 3rd party software.

- Build applications quickly with easy-to-learn Python, the world's most accessible and powerful scripting language.
- Create enterprise-level VR environments with co-presence and clustering capabilities.
- Import 3D models with industry standard formats through our simple art workflow.

**VIZARD'S CORE FEATURES**

**Rapid Application Development:** Powerful simulation engine enables fast development of VR applications and includes a large variety of VR specific libraries.

- **Sophisticated Vizard IDE:** Embedded interactive simulation engine enables rapid development of virtual reality applications.
- **Large variety of VR specific libraries:** Saves development time, easily extend pre-built functionality.
- **Integrated editor:** Transform content from different sources, assemble and modify your world. Includes built-in intelligent code completion, and visual debugging.
- **EXE publishing:** Share and demonstrate your applications without the need for additional software.
- **Scene editor and inspector tool:** 3D model viewer lets you quickly view assets, examine graph structures, see stats on polygon and texture usage, and preview animations.

#### **Extensibility - Third Party Support**

- **VizConnect:** Build once, deploy everywhere. Visual configurator allows you to easily connect third party VR hardware such as analog controllers, haptic devices, motion capture suits, projection systems, biofeedback devices, and more. Includes visual tools for authoring interaction behaviors such as grabbing, vehicle modes (airplane, helicopter, magic carpet), avatar inverse kinematics, and inspection tools such as a measuring tape.
- **Display Flexibility:** Render to single and multi-screen 3D projection systems including curved surfaces. Readily connect to a multitude of 3D stereoscopic devices.
- **Clustering:** Leverage advanced real-time rendering and processing of large worlds and heavy simulations. Connect up to 64 separate computers.
- **Art Workflow:** Import industry standard 2D and 3D formats. Implement advanced material shading techniques including the ability to add your own GLSL shader code.

#### **ADVANCED FEATURES**

##### **Collaboration/Co-Presence**

- yyLink together VizMove VR systems to join people together in the virtual world.
- Interact with team members in real time over a local network.

##### **Physics Engine**

- Access high performance library for simulating rigid body dynamics.
- Simulate vehicle and object interactions in virtual environments. Create robotics simulation applications.
- Utilize advanced joint types and integrated collision detection with friction.

##### **SDK/Extendability**

- Extend the functionality in C++ using the SDK included in Vizard.
- Create plug-ins that can interface with Vizard virtual reality scripts.