

DRIVING SIMULATORS

Dynamic Research, Inc. (DRI) has specified, designed, constructed, and now maintains and operates a research grade Motion Base Driving Simulator (pictured right). It is one of only a few such large scale driving simulators in use in the world today. It has a 180 deg forward field of view high resolution graphics with a 10 deg ultra high resolution inset for down the road view; a fully instrumented cab with steering loader and rear-view mirror displays; and an electro-hydraulic 6 deg of freedom motion base.



DRI also has a Fixed Based Driving Simulator (pictured left). This simulator is fully compatible with the software and graphics of the Motion Base Simulator, and can be used in studies that do not require the advanced capabilities of the Motion Base Simulator. It has a 150 deg forward field of view and a fully instrumented cab with steering loader. It is designed to be used with virtually any off-the-street vehicle as a cab, requiring only minimal modifications to adapt the vehicle to the simulator.

Both of DRI's simulators use the same software and graphic databases. The vehicle models, graphics, motion and scenario software were developed completely in-house, and the system is compatible with third-party real-time vehicle models. Graphics databases and scenarios can run on either simulator, or be networked to provide a two-driver virtual world.

The Driving Simulators are useful to support vehicle and component R&D, as well as related human factors and driver behavior studies, as noted below.

DRI also provides design and development of simulators for clients, including software, hardware, system integration and operational support.

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To support vehicle R&D the Driving Simulators provide:

- Wide range of configurations
- Controlled conditions
- Repeatable conditions
- Easy to change tasks and parameters
- Measurements easy to make
- Hardware in the loop
- Rapid scenario development
- Experimental efficiency
- Little or no risk

Applications include studies involving:

- Complete vehicle response and performance
- Vehicle devices and component systems
- Driver factors and driver behavior
- Driver/vehicle roadway and environment interaction
- Simulator technology development
- Vehicle-related standards and regulations development
- Product defense; including PL, recalls, etc.

DRI specializes in applied research, development, and consulting in the areas of vehicle dynamics and control, man-machine systems, human factors, biomechanics and structural mechanics. For further information please contact us at 310-212-5211, visit our web site at www.dynres.com, or email us at info@dynres.com.

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