The NADS MiniSim™ is a portable high-performance driving simulator designed for research, development, clinical and training applications.

The MiniSim is flexible and excellent for smaller, portable simulators while still retaining the power that researchers demand:

- Common configurations include Quarter-Cab or Desktop. Custom configurations available
- Multiple Display Support: 1, 3, 5
- Adjustable viewports accommodate any size display or projector
- Realistic Vehicle Dynamics: sedans, SUVs, truck with ESC, ABS, and ACC subsystems.
- Sophisticated Scenario Authoring through a graphical windows interface (no scripting is required)
- Comprehensive Data Acquisition puts hundreds of variables at your fingertips.
- Automatic Measures Computation gives you common measures instantly
- Weather and Time of Day adjustable
- Hundreds of scenario objects included (cars, objects, signs, etc.)
- Optional Subsystems include Video Capture and support for Seeing Machines FaceLAB™ and Smart Eye™ Eye-Tracking Systems

Automatic Measures Computation
The MiniSim calculates measures for display instantly after every drive. The measures can be reported for the entire drive, or for up to 20 ‘epochs’ or ‘events’ during the drive. The user defines the start and end locations of each event in ISAT. The measures include:

- Collision Count
- Maximum Speed Lane
- Minimum Speed
- Average Speed
- Std Dev of Speed
- Std Dev of Lateral Position (SDLP)
- Lane Departure Count
- Lane Departure Percentage
- Speeding Count
- Speeding Percentage
- Average Headway

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Compelling Visuals
The MiniSim features the same virtual environments that have been developed and used in the more advanced NADS-1 and NADS-2 simulators.

The driving environments feature urban, suburban, rural and interstate/highway driving areas.

All roads have been designed to meet applicable road construction standards complete with signs and traffic lights. The environments feature a variety of controlled and uncontrolled intersections including 3-ways, 4-ways, roundabouts and several highway interchanges.

Non-US based driving environments are available.

Customize It!
We love a challenge! Be it a mobile simulator, a custom driving environment, or integration with other hardware, just let us know.

Previous customizations include:

- 100's of miles of geo-typical roads
- Scenario Models (bike, message signs, rail crossing, etc)
- Active Safety Subsystems
- Custom Cabs
- Ownship Models
- User Interfaces

Data Acquisition
The MiniSim acquires hundreds of variables that can be analyzed postdrive. They represent comprehensive data on the driver inputs, vehicle information, and scenario information. A selection includes:

**Driver Inputs:**
- Wheel Angle
- Pedal Position
- Response Buttons
- Turn Signals

**Vehicle Information:**
- Speed
- Lat. Acceleration
- Long. Acceleration
- Lane Deviation
- Tire Contact
- Tire Slip / Spin
- RPM
- Heading

**Scenario Variables:**
- Collision and Object ID
- Lead Vehicle Information
- Object Location and Headings

TMT
The Tile Mosaic Tool (TMT) is used to assemble your road network using the drag-and-drop interface. Choose from the included library of 95 tiles, or use and of the 6 included assembled databases.

ISAT
The Interactive Scenario Authoring Tool (ISAT) is used to create your scenarios. It offers sophisticated control for traffic and traffic control devices, and event triggering via positional, conditional, and time-based triggers.

Onsite Training Available
Our partner organizations using the MiniSim™ provide an excellent source for collaborative and multi-site research.