

## Ride Simulator

Millbrook's ride simulator is used for accelerated durability testing of 2 to 3 axle vehicles, with axle loads of up to 12 tonnes and gross vehicle weights of 36 tonnes.

The facility is located in a 18m x 11m x 8m test hall and is ideal for testing anything from large commercial and off-road vehicles to passenger cars. Structural durability can be validated on early prototypes and non-running mule vehicles.

### Applications and capabilities

- Ride comfort benchmarking and development
- Modal analysis of complete vehicles to identify resonant responses
- Rigid body modes
- Flexible body modes
- Seismic block: 9m x 16m, weighing 1,100 tonnes
- High pressure air supply for vehicle air suspensions
- Cooling water and/or forced air to cool suspension units
- Drive signal iteration: MTS RPC with 32 response channels; LMS TWR system with 16 response channels

### Facility

- Maximum wheelbase: 15m
- Actuators: 4 x 160 kN (250 mm stroke, 3 stage valve); 2 x 100 kN (250 mm stroke, 3 stage valve)
- Pump capacity: 1,980 L/min
- nCode Glyphworks
- LMS Test.Lab
- National Instruments LabView



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