

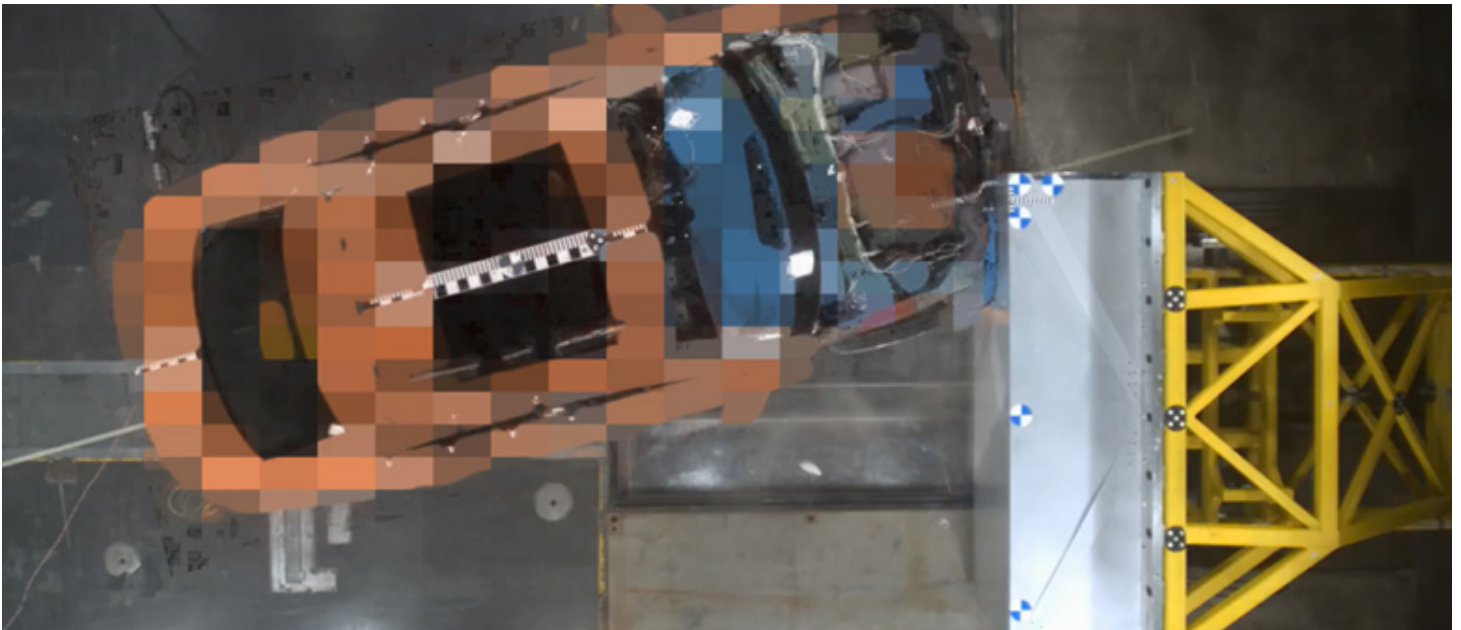
Instrumented barrier for new US requirements

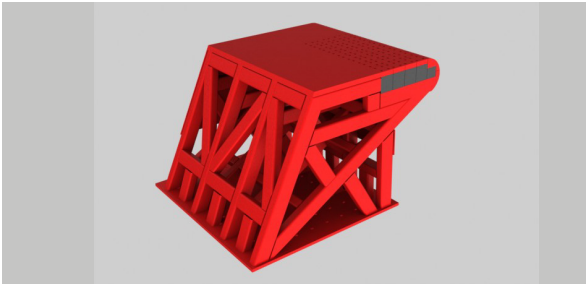
In recent years, the most important challenges for car manufacturers in terms of crashworthiness have been related to the introduction of the Frontal Small Overlap crash test promoted by the Insurance Institute for Highway Safety.

The introduction of this new configuration presents a new and critical load case.

Additionally, the National Highway Traffic Safety Agency is working on a new test procedure with a similar load case, the oblique test.

In order to provide our customers with the best development tools, we have developed two testing barriers which allow data related to the interaction of the vehicle structure with the barrier to be acquired.



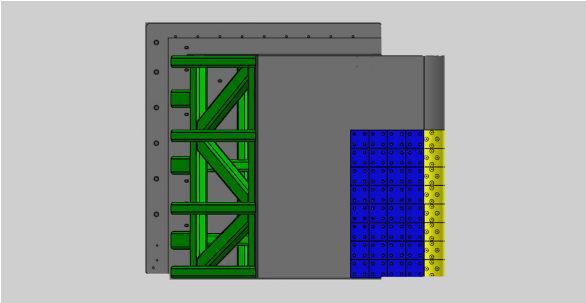


INSTRUMENTED BARRIER FOR SMALL OVERLAP IMPACT TESTING

This barrier is instrumented with load cells in the frontal and corner area to acquire force data involved in the energy absorption and vehicle rotation in the three axes (X, Y and Z).

Pit cameras can also be installed to provide a better understanding through direct visual analysis of the interaction of the structural elements. All this data is also highly valuable for a better correlation with CAE simulations.

IDIADA's test facilities have performed more than 80 overlap crashes supporting our clients in developing new strategies for optimized occupant protection and structure performance in this configuration.



INSTRUMENTED BARRIER FOR RMDB TESTING

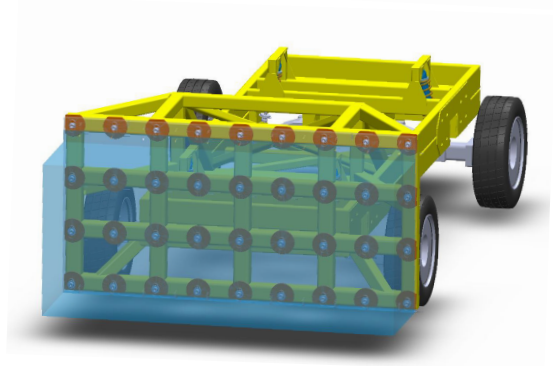
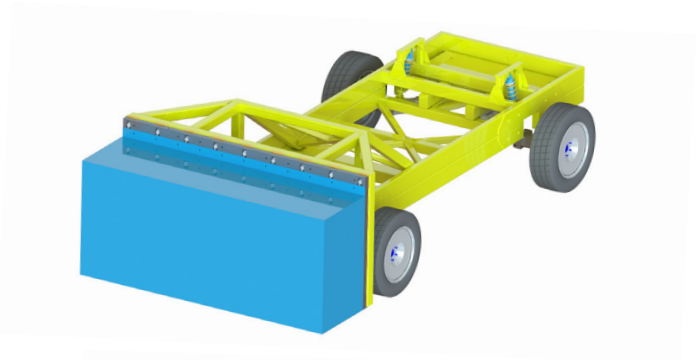
As in the case of Small Overlap Impact, IDIADA has developed the most advanced barrier for vehicle safety development in oblique test configuration.

Based on the barrier developed by NHTSA, the optimized design enhances durability and the possibility to mount deformable elements with and without "bottom cutout", enabling the acquisition of analysis data with the load cells.

This barrier is designed to yield the best development data using an instrumented load cell wall in the frontal area to register the force interacting between the barrier and the vehicle.

This provides a highly useful analysis tool during vehicle safety development in the new configuration.

IDIADA has performed several RMDB impact tests indoors with lighting system and pit cameras to provide better data for visual analysis of the test and increase the understanding of the interaction of the structural elements during the crash.



CONTACT INFORMATION

Applus IDIADA USA • 9270 Holly Road • Adelanto, CA 92301, USA

For further details, please contact:  idiada_USA@idiada.com  +1 760 246 1672

