

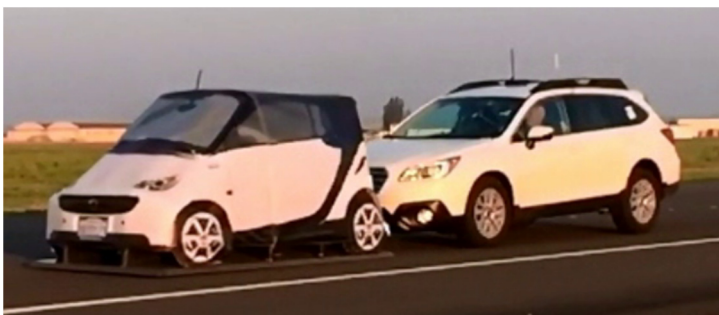
GUIDED SOFT TARGET (GST) TEST SYSTEM
SOFT CAR 360® – GLOBAL 3D VEHICLE TARGET



The Guided Soft Target (GST) test system, developed by Dynamic Research, Inc. (DRI), was developed for the evaluation of Advanced Driver Assistance Systems (ADAS). The GST system comprises a hardened, satellite guided (DGPS), self-propelled Low Profile Robotic Vehicle (LPRV) which serves as a means of conveyance for a variety of surrogate targets which acts as a realistically moving collision partner. The surrogate vehicle pictured above is DRI's Soft Car 360®. In the event of a collision with the GST, the Soft Car 360® separates into durable components, minimizing risk to test personnel and damage to expensive test vehicles.

Soft Car 360® Key Features:

- Industry-confirmed as the global 3D target at EuroNCAP, NHTSA, and IIHS-sponsored events
- Resembles a real vehicle to a variety of sensors
- Stable at speeds over 80 km/h
- Capable of enduring impacts with closing speeds over 110 km/h without damaging the test vehicle
- Breaks into sections upon impact to minimize forces on the test vehicle
- Reassembly in as little as 5-10 minutes



Features of the Soft Car 360[®]

The Soft Car 360[®] provides a means of testing ADAS systems' response to other vehicles either in a dynamic or static condition. Some of the features and benefits of the Soft Car 360[®] are described below.

Full Vehicle Target from 360 Degrees

The Soft Car 360[®] is representative of a real vehicle from any direction. This makes the Soft Car 360[®] a suitable target for any collision scenario and does not require specialized targets for specific test scenarios. The Soft Car 360[®] can be used to test ADAS systems' response to rear-end, head-on, and intersection scenarios. Using a single target for all test scenarios will reduce test development and test execution time and cost.

Sensor Calibration

Extensive work has been done to confirm that the Soft Car 360[™] appears to be a small passenger vehicle to Radar, Laser, and camera-based sensors from any direction.

Use as Dynamic or Static Target

The Soft Car 360[®] can be carried by a moving platform such as the LPRV or as a static target.

Capable of High Closing Speed Impacts

The Soft Car 360[®] can be used to perform high closing speed impacts. In DRI's testing, we have performed head-on impacts with closing speeds greater than 70 MPH with no substantial damage to the test vehicle. For high speed impacts, it is recommended to use a grill or bumper guard on the test vehicle to prevent damage to the plastic bumper components.

Models of the Soft Car 360[®]

The Soft Car 360[®] can be provided in a several shapes and sizes. In addition to the two models shown below the Soft Car 360[®] can be configured to resemble other vehicle types or other vehicle models.

Hatchback Soft Car 360[®]



Stable at High Speeds and In Turns

The patented internal structure is designed to be stable both at high speeds and in turns. The Soft Car 360[®] is capable of moving at speeds of over 50 MPH and can turn at over 0.8 G's without undesirable movements.

Target Durability

The patented combination of light weight foam covered with high-strength vinyl makes the Soft Car 360[®] one of the most durable surrogate vehicle targets available. The Soft Car 360[®] has been able to withstand 100 impacts with a 45 MPH closing speed from both a passenger car and a truck tractor with only minimal in-field repairs.



Micro Soft Car 360[®]



The GST is available for use worldwide. In addition, basic or customized copies of it may be purchased.

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This product is covered by one or more of the following US Patents: 8,428,863; 8,428,864; 8,447,509; 8,457,877; 8,583,358; 8,589,062; 8,751,143; 8,755,999; and 8,762,644. Patents pending.