

# Guided Soft Target™ (GST™)



The GST is the next generation of surrogate vehicle system designed for use in the testing of vehicle Advanced Driver Assistance Systems (ADAS). Both our GST 100 and GST 120 Platforms benefit from many class-leading features including the ultra-low height of just 100mm. The GST 120, with its 4.8kWh battery is the only product on the market capable of testing highway assist and drive pilot systems at realistic highway speeds.

The GST is designed to enable high-speed collisions to be carried out without causing significant damage to the test vehicle. It consists of a GST Platform, which can be driven over, and a separate foam panel body (the Soft Car 360™ harmonised Global Vehicle Target, GVT). When the platform is driven over, the wheels of the vehicle retract into the chassis to protect the suspension of the GST and to provide the minimum possible shock input to the test vehicle suspension.



## Features

- Aluminium chassis – wheels retract into chassis when driven over
- Electric drive system with belt drive transmission
- Electrically-actuated steering system
- Lithium iron phosphate battery pack giving outstanding power to weight ratio
- Battery packs are certified safe for air freight transportation under UN38.3
- 4-disc hydraulic braking system with failsafe emergency braking
- AB Dynamics' proven driverless control system, with hardware mounted in water-resistant casing
- Position feedback from inertial navigation system with GPS correction
- Accurate path-following and speed control capability
- Synchro software allows coordinated motion with other AB Dynamics platforms, manually driven vehicles and those equipped with AB Dynamics driving robots

# Specifications

	GST 100	GST 120
Maximum acceleration (with Soft Car 360 fitted)	0.22g	0.28g
Maximum deceleration	0.8g	0.8g (with ABS)
Maximum lateral acceleration	0.4-0.5g	0.4-0.5g
GST Platform	315kg	345kg
GST Platform length	2950mm	3160mm
GST Platform width	1680mm	1680mm
GST Platform height (Suspension retracted into chassis)	100mm	100mm
GST Platform wheelbase	1400mm	1670mm
GST Platform front track	790mm	790mm
Max ground clearance, set to max ride height	20mm	20mm
Edge details (edge for minimal radar reflection)	22deg	22deg
Battery capacity	3.6kWh (removable for shipping)	4.8kWh (removable for shipping)
Path-following accuracy (1SD RMS typical maximum, compatible with OxTS and Genesys products)	2cm	2cm
Over-run capacity	Up to 1000kg per wheel+*	Up to 1000kg per wheel+*
Typical maximum speed (with Soft Car 360)	100km/h	120km/h

+(500kg with ultra-low-profile top plate)

\* HD version available for use with heavy trucks

## About AB Dynamics

AB Dynamics is a leading global provider of automotive test and verification solutions that facilitate the development of vehicles that are safer, more efficient and sustainable. As part of the AB Dynamics Group of companies we enable customers to develop and test in virtual environments, validate on the track and then evaluate vehicles on public roads.

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