

Highway-speed ADAS and AV testing

GST™ 120 Plus

Meet the GST™ 120 Plus, the newest member of the Guided Soft Target™ (GST) product family. Built for high-speed ADAS and AV testing, it's the only surrogate vehicle platform capable of reaching 130 km/h, addressing Euro NCAP's highest speed test requirements in the new 2026 test protocols.

Sharing the proven DNA of the original GST 120 design, the GST 120 Plus combines an ultra-low profile design with enhanced performance and extended range from a 5.9 kWh battery. It is built to replicate complex scenarios with precision, stability, and efficiency.



Low height aluminum chassis with retracting wheels



Identical chassis dimensions to the Euro NCAP approved GST 120



4-disc hydraulic braking system with fail-safe emergency braking



Inertial Navigation System with GNSS correction



Synchro software allows coordinated motion with other vehicles



130 km/h top speed unlocks the full range of Euro NCAP 2026 protocols



5.9 kWh lithium iron phosphate battery for outstanding power



ABS braking to prevent wheel lock and optimise deceleration control



Fully integrated AB Dynamics path-following and speed control



New Remote RC interface provides a more streamlined user experience

An essential platform for ADAS and AV development

The GST 120 Plus is a self-propelled platform designed to carry a full vehicle target for ADAS and autonomous vehicle testing and is compatible with DRI's Soft Car 360® target. Designed to safely enable high-speed testing, when the platform is driven over, the wheels retract into the chassis to protect the platform's suspension while the vehicle target separates, minimising the risk of damage to the test vehicle.

Working within our track test product ecosystem

Part of our track test product ecosystem, the GST 120 Plus integrates seamlessly with your existing AB Dynamics equipment - driving robots, ADAS targets and platforms, and software – helping you to create and manage complex scenarios efficiently.

Designed for current and future testing needs

As the demand for higher-speed, more versatile test platforms grows, the GST 120 Plus is engineered to meet these challenges, extending top speed to 130 km/h and delivering rapid acceleration for shorter test distances making it ideal for facilities with limited track space.

Specifications

Typical maximum speed	130 km/h (fitted with Soft Car 360)
Braking	0.8 g (with ABS)
Maximum lateral acceleration	0.4-0.5 g
Acceleration performance	Reaches 80 km/h in <130 m
GST Platform length	3160 mm
GST Platform width	1680 mm
GST Platform height (suspension retracted into chassis)	100 mm
GST Platform wheelbase	1670 mm
GST Platform front track	790 mm
Max ground clearance, set to max ride height	20 mm
Edge detail	22° edge angle for minimal radar reflection
Battery capacity	5.9 kWh (removeable for shipping)
Path-following accuracy	Typically +/- 0.1 m. Note: Measurement accuracy dependent upon motion pack (2 cm 1SD RMS typical maximum). Compatible with OxTS and GeneSys products
Over-run capacity	Up to 1000 kg per wheel (500 kg with ultra-low-profile top plate). Optional HD version 9000 kg/axle
Soft Car 360 compatibility	GST 120 Plus is compatible with DRI's Soft Car 360® (upgrade kit recommended for additional stability at 130 km/h)

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.

For more information:
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