DRIVINGROBOT

Whether you're testing passenger vehicles or heavy-duty trucks, our DrivingRobot modular (DRm) line provides a powerful, easy-to-install solution for ADAS and autonomous vehicle development. With three specialized versions — DRm45b[™], DRm60[™], and DRm150[™] — the DRm family covers the full range of vehicle types and testing demands.

The DrivingRobot modular (DRm) system is a flexible and efficient solution for ADAS and autonomous vehicle testing across a wide range of vehicle types. Designed with efficiency and ease of use in mind, all DRm models can be installed in under 30 minutes with only one tool. The system is built around a modular architecture that allows the steering and pedal robots to be used independently or together, depending on the testing requirements. A compact electronics box and battery are mounted securely on the rear seat using either ISOFIX or seatbelt systems — a setup that is consistent across all DRm versions.

The DRm's design avoids the need to remove the steering wheel or interfere with the vehicle's airbag, preserving the original safety systems. The Steering Wheel Adapter supports diameters from 330 to 510 mm and can remain mounted to speed up changeovers between test vehicles. The PRm pedal robot mounts directly onto the seat rail, maintaining maximum foot space and ensuring a comfortable position for the driver during tests. All DRm systems integrate seamlessly with the UFObase software and can be combined with the UFO target carrier family for fully synchronized ADAS scenarios.

The DRm is available in three versions to suit different vehicle classes and test conditions.

The DRm150[™] is built for heavy-duty vehicles such as buses and trucks. It uses the high-torque SRm150 steering unit with 150 Nm and is optimized for demanding testing conditions, including tight turns, emergency braking, and high-speed maneuvers. Like the



DRm60[™], the DRm150[™] features a split motor-adapter design, allowing multiple Vehicle Under Tests (VUTs) to be prepared in parallel for more efficient test workflows.



The DRm60[™] is designed for testing passenger cars, SUVs, and light commercial vehicles. It uses the SRm60 steering motor and supports the same modular benefits as the DRm150[™]. Its adaptable structure allows quick switching between vehicles and ensures precise,

repeatable control — making it a strong choice for both regulatory and development testing.

The **DRm45b[™]**, formerly known as the DRc, is our compact and proven solution for passenger vehicle testing. Unlike the DRm60[™] and DRm150[™], the DRm45b[™] is installed behind the steering wheel but still maintains full airbag functionality and driver comfort.





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Modular Components for Custom Testing Needs

Steering Wheel Speed [*/s] — DRm45b — DRm60 — DRm150

All DRm versions share a modular structure that allows tailored configuration:



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		DRm45b™	DRm60™	DRm150™
ROBOT CONTROL	Power Supply	48 V battery system, 760 Wh	48 V battery system, 760 Wh	48 V battery system, 760 Wh
	Signal Channels and Interfaces	CAN, RS232, Ethernet	CAN, RS232, Ethernet	CAN, RS232, Ethernet
	Sampling Frequency Range	100 Hz	100 Hz	100 Hz
	Compatibility	Humanetics UFO target carrier products (third party systems on request/interfaces)	Humanetics UFO target carrier products (third party systems on request/interfaces)	Humanetics UFO target carrier products (third party systems on request/interfaces)
	Power-Off Protection	Dedicated battery system	Dedicated battery system	Dedicated battery system
	Screen	Tablet PC for in-car use	Tablet PC for in-car use	Tablet PC for in-car use
STEERING ROBOT	Drive Mode	Brushless electric motor	Brushless electric motor	Brushless electric motor
	Max Torque	60 Nm at 400%	78 Nm at 400 %	150 Nm at 400%
	Max Velocity	1740 % at 5 Nm	2000% at 5 Nm	1840% at 5 Nm
	Rotational Inertia	0,0656 kgm2 incl. Ring guide		
	Steering Wheel Diameter	329-389 mm	330-510 mm	330-510 mm
	System Angle Control Accuracy	+/- 0.5°	+/- 0.5°	+/- 0.5°
	Control Mode	Path following, wheel angle con- trol, steering wheel angle control, friction compensation	Path following, wheel angle con- trol, steering wheel angle control, friction compensation	Path following, wheel angle con- trol, steering wheel angle control, friction compensation
	Space Behind Steering Wheel	For fixation of clamps	no limitations	no limitations
	Space in front of Steering Wheel	no limitations	60 mm required	60 mm required
THROTTLE PEDAL ACTUATOR	Max Continuous Pedal Force	56 N	56 N	56 N
	Max Throttle Pedal Force	156 N	156 N	156 N
	Max Throttle Pedal Speed	1 m/s	1 m/s	1 m/s
	Max Stroke	104 mm	104 mm	104 mm
	Control Mode	Speed Control, Position Control, Force Control	Speed Control, Position Control, Force Control	Speed Control, Position Control, Force Control
BRAKE PEDAL ACTUATOR	Security	Safe Design – driver can overrule the brake and take over control at any time	Safe Design – driver can overrule the brake and take over control at any time	Safe Design – driver can overrule the brake and take over control at any time
	Drive Mode	Brushless electric motor	Brushless electric motor	Brushless electric motor
	Max Braking Force	1000 N (depending on mounting angle)	1000 N (depending on mounting angle)	1000 N (depending on mounting angle)
	Max Velocity	1 m/s	1 m/s	1 m/s
	Max Stroke	140 mm (depending on mounting angle)	140 mm (depending on mounting angle)	140 mm (depending on mounting angle)
	Control Mode	Speed Control, Position Control, Force Control	Speed Control, Position Control, Force Control	Speed Control, Position Control, Force Control