

AUTOMOBILE

Application: Steering Robot



Steering robots are used for the development of vehicle dynamics, steering and braking systems, the testing of Advanced Driver Assistance Systems (ADAS), as well as applications such as misuse and durability testing. Using such robots for vehicle testing dramatically reduces testing time - every run is a good one. ABD robots can be installed with minimal modification to the

vehicle, and allow the driver to remain seated in the vehicle as normal with the equipment installed. They are all electrically driven and are normally powered from the vehicle's battery.

Tests are easily programmed using a single Windows-based software interface, which is typically installed on a laptop or tablet PC. Real-time control of the robots is undertaken by a powerful servo-controller which is linked to the PC.

Highly-accurate path-following is possible using an ABD steering robot and a GPS-corrected inertial measurement unit. Combining steering and pedal robots allows full driverless testing. This has applications including tests where the risk for the driver would be high or where the testing condition is arduous for the driver.

MACCON contribution

For this project supplies a special, direct-drive motor, with a torque (nom. 30Nm) and size matched to the steering wheel. We also provide our SWM controller, which is ideally suited to vehicle use as it is both rugged and can be powered directly from the 12 or 24V battery.

