

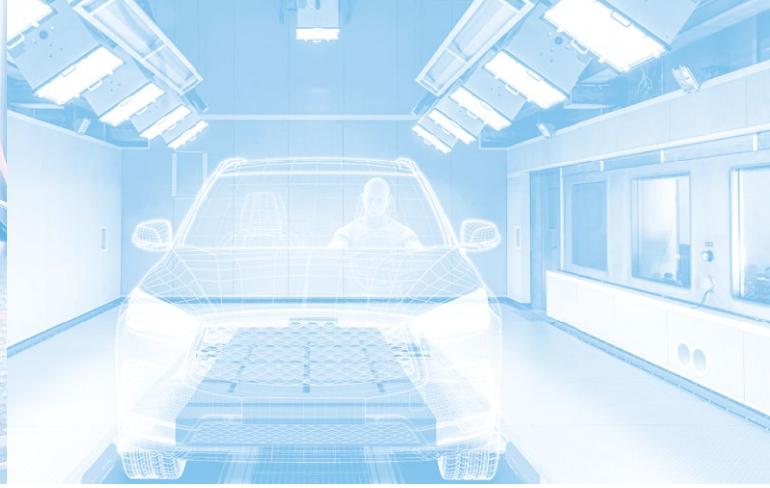
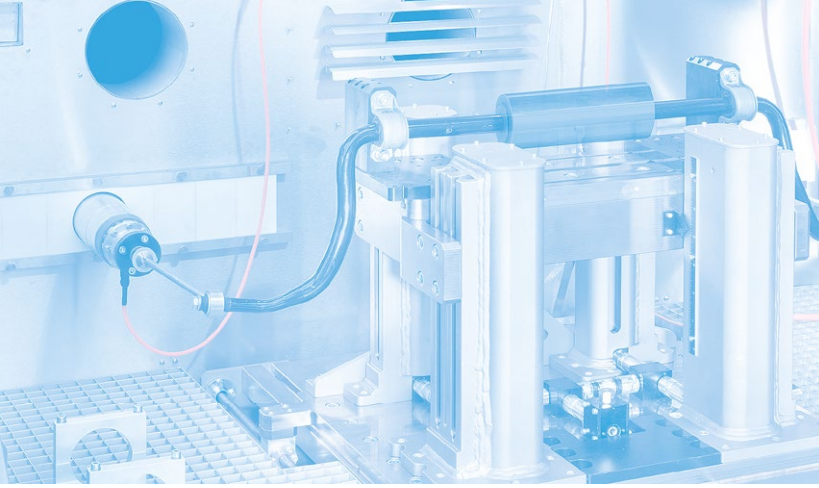
**IABG. The Future.**



## **Comprehensive options for safeguarding mechatronic systems**

IABG mechatronics rack:  
A solution for diverse challenges

**iABG**



## IABG mechatronics rack

# Comprehensive options for safeguarding mechatronic systems

The integrative solution from a single source in one place for a wide range of challenges in safeguarding mechatronic systems

When qualifying and safeguarding mechatronic systems, it is often necessary to superimpose additional mechanical stress, vibration and climatic environmental simulation of the components.

With the mechatronics rack, IABG offers an integrative solution from one source in one place. An expansion of test environments for mechatronic DUTs is possible.

**Integrative solution**  
FROM A SINGLE SOURCE • IN ONE PLACE

This means that, among other things, dynamic tests of active rear axle steering systems under environmental influences, functional tests of active roll stabilisers or service life tests on chassis actuators can be realistically reproduced.

The mechatronics rack contains all subsystems such as residual bus and on-board power supply simulation for tests of electromechanical systems in existing test facilities. In future, it will no longer be necessary for the customer to provide hardware and personnel. Commissioning of DUTs can be realised online.



### Service description

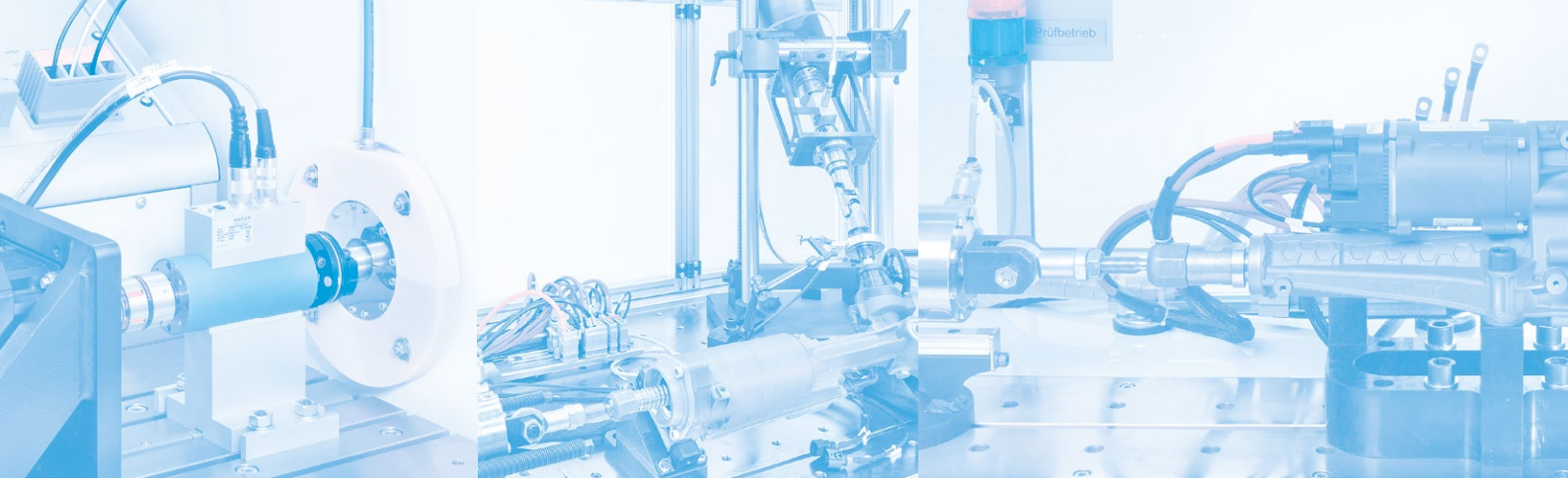
- Extension of test environments for mechatronic DUTs
- dSpace Scalexio for residual bus simulation (CAN, FlexRay)
- On-board power supply simulation (12V/48V), bidirectional power supply
- Test automation by stand system or mechatronic rack as master

### Fields of application

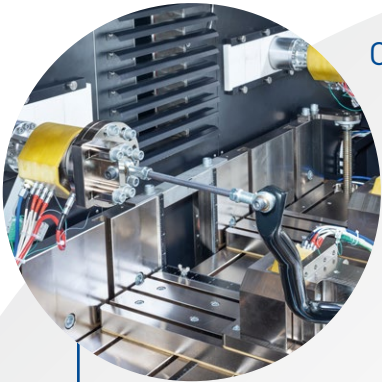
- **Typical test items:** EPS steering systems, rear axle steering systems, active roll stabilizers, drive systems etc.
- **Typical test scopes:** Environmental simulations, life tests, functional and development tests, structure-borne sound analyses etc.

### Technical specifications

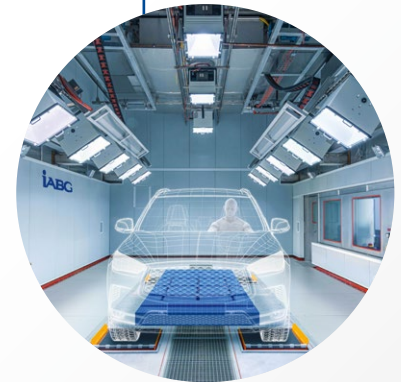
- **Communication with DUT:** CAN (2x), FlexRay (2x), switchable bus interruption
- **Bidirectional power supply:** 0 – 60V, ±450A, connections for two DUTs (200A each), voltage and current measurement (2x), quiescent current measurement (2x), KL.30/40 switchable (2x), Sense (1x), optional: SuperCaps, redundant power supply
- **Logic supply:** 0 – 30V, 10A, connections for two DUTs, voltage and current measurement (2x), KL.30 switchable (2x), KL.15 switchable (2x)
- **Additional inputs and outputs:** AI ±10V (5x), AO ±10V (5x), DI (4x), DO (4x), temperature (8x), CAN (5x)
- **Interfaces to peripheral control unit:** RS232, Ethernet, analogue



## Climatic environmental simulation & mechatronic systems

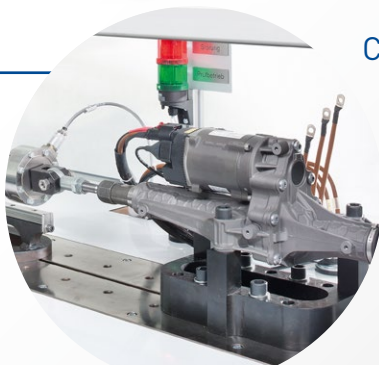


- **Tests on electrical components** (e.g. actuators and drives) according to LV124 with supply and control of the DUTs during the environmental tests
- **Carrying out parameter tests** to record relevant characteristic data of the DUTs to prove correct function
- **Communication** with peripheral devices



## Vibration testing from sub-components to the complete vehicle & mechatronic systems

- **Active control of chassis components** during the vibration test



## Component testing & mechatronic systems

- **Endurance testing, parameter and function tests** on mechatronic components and systems under environmental simulation and additional mechanical loads
- **Release testing** of prototypes
- **HiL simulation** on highly dynamic mechatronic components



**AUTOMOTIVE**



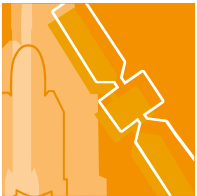
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**SPACE**



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# IABG. The Future.

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For further information please contact:

Phone +49 89 6088-4454

[sales@iabg.de](mailto:sales@iabg.de)



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IABG  
Einsteinstrasse 20  
85521 Ottobrunn  
Germany  
Phone +49 89 6088-2030  
Fax +49 89 6088-4000  
[info@iabg.de](mailto:info@iabg.de)  
[www.iabg.de](http://www.iabg.de)

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