

SPIDER

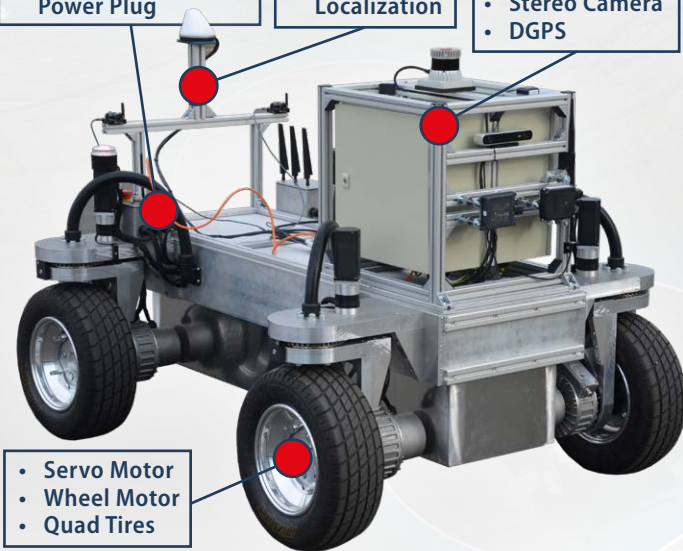
Key Features:

- Emergency Button
- Emergency Remote
- Ethernet & USB Power Plug

- WLAN
- V2X
- GPS
- Indoor Localization

Sensor Box (exchangeable)

- RADAR
- LIDAR
- Stereo Camera
- DGPS



- Servo Motor
- Wheel Motor
- Quad Tires

Mobile Platform for the Development and Testing of Autonomous Driving Functions

...for fast, flexible and reproducible tests

SPIDER

Offering Tech-Support:

Unique Test Scenarios

- Development of tailor-made test scenarios in close cooperation with customer's needs
- Definition of use case, target driving area and contained situations

Simulated Target Vehicle

- Creation and setup of simulated target vehicle
- Integration of sensor, hardware and software on SPIDER

Proving Grounds

- Multiple proving grounds available
- Test targets like vehicles and pedestrians available
- Mobile platforms for moving targets available

Testing on Target Driving Area

- Performing tests on target driving area (if legally allowed)
- We are developing the test approval process for Austria

Booking & Contact:

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SPIDER



Mobile Platform for the Development and Testing of Autonomous Driving Functions

Testing Decision Making Algorithms

- Software testing
- Autoware, Apollo and embedded software
- Safety is ensured by SPIDER

Testing Perceptions Systems

- Verification and validation of sensor setups
- Benchmarking of sensor configurations
- Mounting positions, weather dependencies

Testing Control Systems

- External control of SPIDER possible



- Mobile HiL Platform
- Provision of power and data interfaces for extensions
- Robust and splash-water proof
- Safety ensured

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Applications

Testing Decision Making Algorithms

- Software testing
- Autoware, Apollo and embedded software
- Safety is ensured by SPIDER

Testing Perception Systems

- Verification and validation of sensor setups
- Benchmarking of sensor configurations
- Impact analysis of mounting positions and weather dependencies

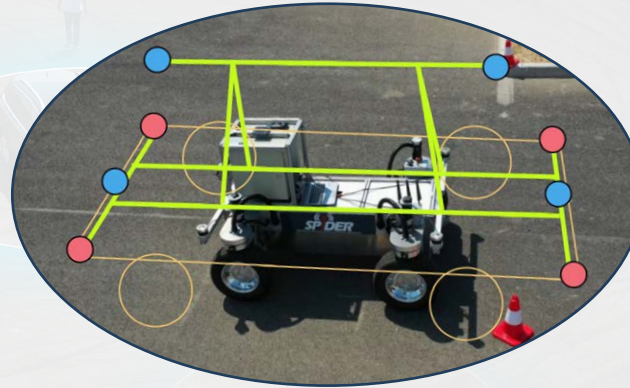
Testing Control Systems

- External movement control of SPIDER possible

Target Vehicle Imitation

Matching Sensor Position

- Sensors of target vehicle are mounted at same position on SPIDER

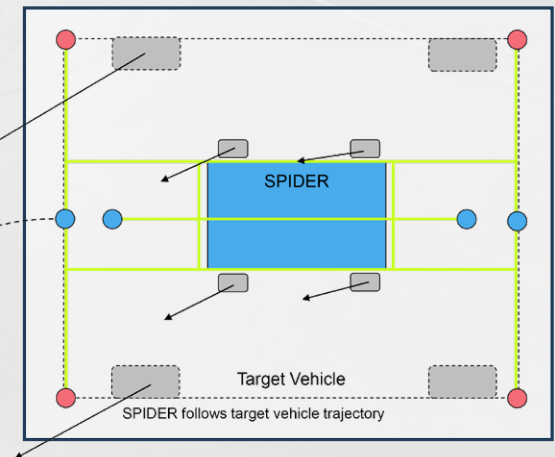


- SPIDER sensors ensuring safety (position can change)
- Target vehicle sensors
- Mounting rods

Target Vehicle Imitation

Identical Driving Behaviour

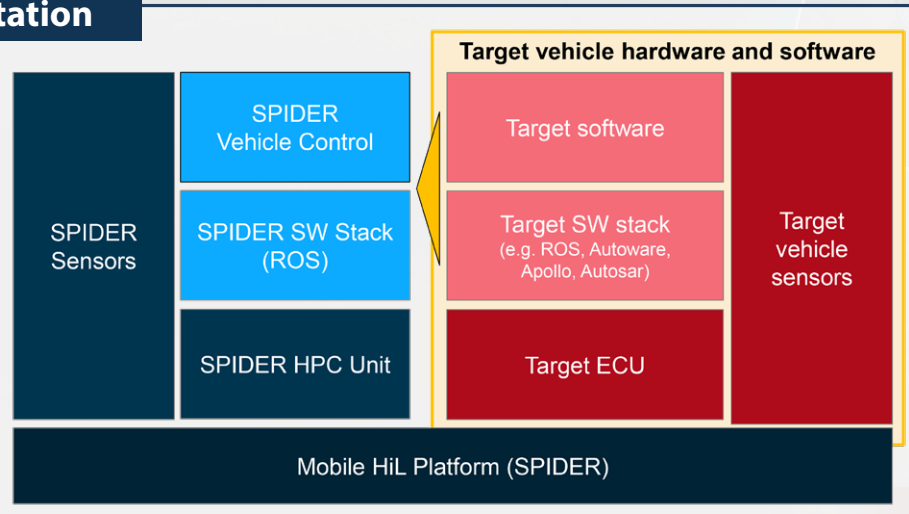
- SPIDER matches driven trajectory to target vehicle
- Omni-directional driving capabilities
- Requires independent steering of each wheel
- Safety of test drive is ensured by SPIDER
- Provision of collision avoidance function
- Testing of early stage software



Target Vehicle Imitation

Same Hardware and Software

- SPIDER carries target hardware and software
- Driving commands are passed to SPIDER



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