

EF-CAR Rehab

Driving Assessment and Rehabilitation Solution for Healthcare Facilities

EF-Car Rehab is the complete and standardized solution for assessing driving abilities and supporting the functional rehabilitation of patients with cognitive, motor or neurological disorders. The EXAIL simulator combines immersive environments, objective measurements, and validated clinical protocols to support medical teams in their analysis and decisions.



KEY FEATURES

- **Comprehensive Functional Assessment:**
Cognition, perception, coordination, reaction time, decision-making.
- **Immersive simulations:**
Realistic driving scenarios, adaptable to the patient's profile.
- **Standardized protocols:**
Reproducible, comparable and aligned with clinical practices.
- **Individualized reporting tools:**
Detailed results, graphs, longitudinal follow-up.
- **Personalized rehabilitation modules:**
Progression adapted to the patient's abilities and evolution.

POPULATION CONCERNED

The EF-Car Rehab simulator is particularly suitable for patients with:

- Stroke
- Head Trauma
- Neurological disorders
- Spinal cord injury
- Mild to moderate cognitive impairment
- Motor limitations impacting driving

POSITIONING

The EF-Car Rehab simulator specifically designed and developed by EXAIL is the reference solution for driving assessment and rehabilitation, combining clinical rigor, technological innovation and operational efficiency.

BENEFITS FOR CLINICAL TEAMS

- **Objective, reliable and reproducible** measurements
- **Medical decision-making** support
- **Progressive and personalized** rehabilitation
- Longitudinal monitoring of evolution
- Structuring of a specialized activity within the department

VALUE TO HEALTHCARE FACILITIES

- Standardization of evaluation protocols
- Optimization of team time
- Full data traceability
- Strengthening territorial attractiveness
- Development of a differentiating activity

RETURN ON INVESTMENT

- Better internal patient orientation
- Reduced risk of subjective decisions
- Optimization of therapeutic time
- Institutional and organisational valuation



RUGGED, COMPACT AND
MOBILE HARDWARE

- Real vehicle components (steering wheel, pedals, controls, lights/windshield wipers)
- Adjustable seat (optional adjustable steering wheel)
- 3-points seat belt
- Force feedback steering wheel
- Manual shifter (6 gears + reverse) with simulated automatic mode
- Three 27-inch curved LED screens (55-inches optional)
- Latest generation computer equipment
- Touch user interface
- Access to the simulator from the left or right according to the country's standards

REAL SOJADIS ADAPTIVE DRIVING
EQUIPMENT

- **Acceleration:**
Left foot throttle, Steering wheel circle, Steering wheel throttle handle
- **Acceleration/Braking:**
Motorcycle/quad grips (thumb/index finger left/right with/without mini-keyboard), pull/push grips (left/right)
- **Steering Wheel Assist Devices:**
Centralized Electronic Controls (LEHMDIS/COMDIS), Manual Controls (Ball/Fork)



ACCELEG
Left foot
accelerator



CERCLACCEL
Steering wheel
circle accelerator



ACCELEVER
Steering
wheel
accelerator



ACCEL BIKE II
Motorcycle
accelerator



ACCEL INDEX
Index finger
accelerator



ACCEL QUAD
Thumb finger
accelerator



ACCELEVO
Push/pull
accelerator/brake



LEHMDIS



BALL



SOFTWARE FOR OCCUPATIONAL
THERAPISTS

- Clear and structured assessment module
- Progressive rehabilitation scenarios
- Adaptable to specific disability situations
- Targeted exercises by functional area
- Exportable Reports for Medical Records
- Ultra-realistic 3D virtual world (Unreal Engine 5)
- Wide variety of driving environments (city, countryside, mountains, highway)
- Variable environmental conditions (time of day, traffic density, rain, snow, visibility)
- Different vehicle sizes (compact car, sedan, minivan, van)
- Approved by the French Road Safety Delegation (DSR)

Technical specifications

Data Security	GDPR compliant
Dimensions (L x W x H)	1.63 m x 1.68 m x 1.44 m (1.51 m with 3-axis dynamic platform)
Weight	190 Kg (260 Kg with 3-axis dynamic platform)
Power supply	220V-240V 50Hz
Energy consumption	650 W (1500 W with 3-axis dynamic platform)
Protection	16 A
Residual current circuit breaker	30 mA
Options	55-inches LED screens, 3-axis dynamic platform for the feeling of acceleration/braking/turning, swivel seat, wheelchair access ramp, patient camera, high-precision eye tracking, interaction tablet for the occupational therapist