# SEATS AND HEAD RESTRAINTS TESTING SYSTEM

**VZERO designs and supplies a wide variety of Passive Safety Testing Systems such as Full Scale Crash Facilities, Crash Simulation Sleds, Universal Launchers for Anthropomorphic Forms, Seat and Head Restraints Test Benches, Roof Crush and Side Intrusion Testing Systems, Seat Belts and Anchorages Testing Systems, Coupling Devices Testing Systems, Impact Pendulums, etc.**



## SEATS AND HEAD RESTRAINTS TESTING SYSTEM

- **Compliant with the following regulations: UN ECE R17, R25|FMVSS 202, 202 A|GTR7**

- **1, 2 or 3 simultaneous seats**

- **Optional bedplate**

- **Electromechanical actuation**

- **Headform force ≥ 5 kN**

- **Back Moment ≥ 1 kN·m**

- **Advanced multiaxis control system VZERO MADC®**

# SEATS AND HEAD RESTRAINTS TESTING SYSTEM

VZERO engineering solutions

## SOFTWARE SUITE

- **RPD: Reference Profile Definition per DoF:**

  - Basic waveforms: sine, square, etc.
  - From ASCII file
  - Time-magnitude pairs
  - Swept sine and Random
  - External (third party software)

- **TME: Test Management and Execution**

  - Load and review of previously defined tests
  - Real time tuning of control parameters
  - Test execution management: run/stop test, pause, abort test. Data saving
  - Waveform visualization: Reference and actual waveform in DoF/Actuator space

- **TDR: Test Data Review**

  - Load and review test results from previously completed tests
  - Calculated channels in Time and Frequency domains
  - Basic reporting tools

- **RTC: Real time Control**

  - Test simulation
  - Predictive PID real time control of servoactuators individual trajectories
  - Predictive/Adaptive Degree of Freedom control loops
  - Hierarchical Load/Position control algorithms
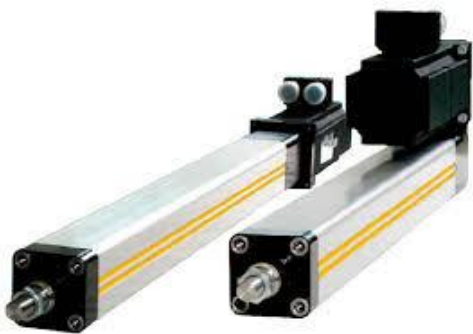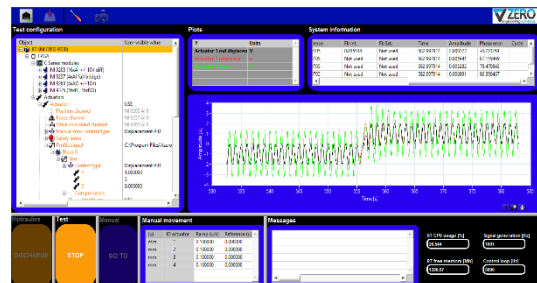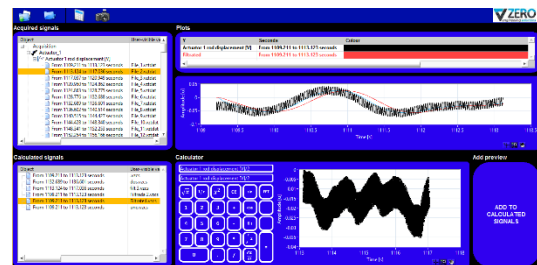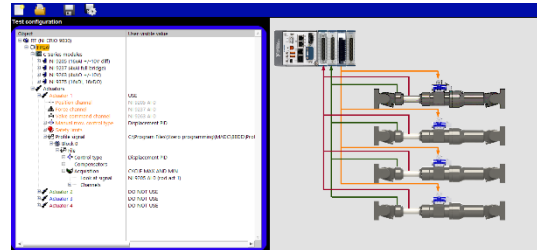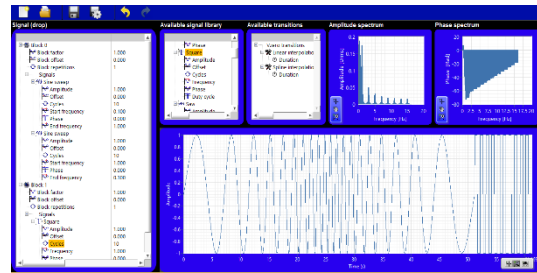
**Electromechanical actuators**

**Control rack**