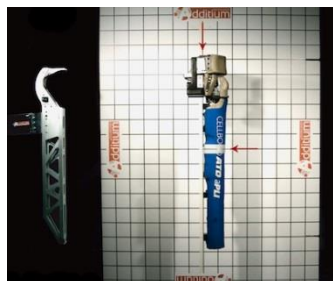


## TOP STORIES THIS NEWSLETTER



Adding Value to the Bio-Fidelity of the NEW aPLI



High Dynamic Actuators



M+P Impedance Tube



3099 Series Filtered Shock Sensors

## ADDING VALUE TO THE BIO-FIDELITY OF NEW aPLI



The new pedestrian legform, aPLI, has been designed to reproduce a better Biofidelity of human body (legform + upper mass) when impact to a vehicle.

However, this Biofidelity can be affected by the physics of the movement during the launch of the aPLI. Any inertia moment on any of the axis, or high jerk on the propulsion, can disturb the reality and make the test invalid. Therefore, it is very important to be able to control the acceleration path during the propulsion and the soft release of the aPLI, when performing a pedestrian test.

The family of E-Launchers designed by ADDITIUM, includes the special feature of full control on the initial jerk, acceleration profile and release jerk, which allows the performance of a perfect pedestrian test, with the right attitude of the aPLI at any time until the impact point. Read the full article here

## HIGH DYNAMIC ACTUATORS



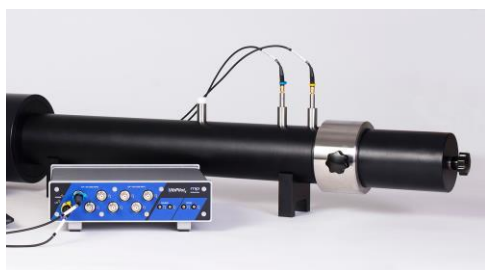
STEP Lab uses its specialization in the development of electrodynamic axes to create a new series of machines for high dynamic applications (e.g. shock absorbers for cars and motorcycles).

This new range of machines, all based on linear motors, is divided into two families: one more suitable for durability tests and the other more suitable for performance tests.

For Damper and Materials & Products Characterization Test

- Manageable speeds from 0.01mm/s up to 6.000mm/s
- Management of control loops up to 16 kHz
- Cycles with frequencies up to 200 Hz
- Maximum speeds of 6 m/s
- High stroke more than 200mm

## M+P Impedance Tube



Sound quality is becoming an important factor in product design, where acoustic materials serve to enhance the perceived acoustics of a product. Acoustic material testing enables engineers to assess crucial sound characteristics of sound absorbing materials. To this end, impedance tubes are utilized to identify sound characteristics of material samples in the laboratory under controlled conditions.

The impedance test gives detailed information about the materials sound characteristics, including

### Sound quantities:

- Sound absorption
- Sound reflection
- Acoustic impedance
- Sound transmission coefficient/loss

### Standards:

- ISO 10534-2
- ASTM 1050-12
- ASTM 2611-17

## 3099 Series Mechanically and Electrically Filtered Shock Sensors



The Dytran 3099A Series measures high shock impact up to 60KG range and other high amplitude, short duration events. Its unique miniature design incorporates quartz sensing elements with a mechanical and electrical filter to ensure zero shift does not corrupt your SRS plot. Applications include metal-to-metal impact testing, far-field blast testing as well as near field explosive bolt & stage separation.

- Available in up to 60k G range
- Mechanical and Electrical Filter
- Hermetically sealed lightweight titanium housing, total weight of 8 grams
- Electrically case isolated
- On-board miniature IC amplifiers
- 1/4-28 integral mounting stud with flying leads
- Offered in 3 Sensitivities ( 0.05, 0.1, 0.2 mV/g)