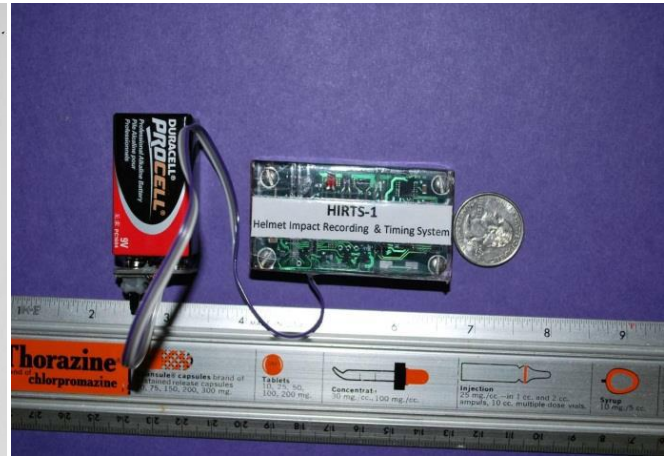


Helmet Impact Recording System (HIRTS-1)



Features

- Compact, self-contained
- 2" x 1" x 0.5", 40 grams
- 3-axis accelerometer & recorder
- Records peak shocks, total energy, duration, date, time
- Ranges from 100 g to 2,000 g.
- Standard range +/-300g
- Threshold triggered
- 2,500 event memory
- Wireless data interface
- Electronics epoxy encapsulated

Applications

- Athletic helmet testing
- Crash testing
- Drop testing
- Athletic event measurement
- Military helmet testing
- Space constrained shock testing

Available for rental or purchase

Contact IST for pricing and availability.

The HIRTS-1 is a compact, self-contained recording device which measures and records shock and impact to helmets or other space constrained fixtures. The device is planted or installed to an inside surface of the helmet. The device contains three accelerometer sensors which accurately measure the accelerations (forces) during helmet impacts, in 3-directions. Therefore, the device can measure and record impacts from any direction, and at any time. During an impact event the device measures and records the peak, or maximum, acceleration (force) of the event, in each of three axes (x, y, and z) along with the exact date and time of occurrence. In addition, the device measures and records the “change in velocity” (proportional to energy) associated with the impact acceleration event in each of three axes (x, y, and z). The HIRTS device can continue to take these measurements for multiple times (up to thousands) and for up to several days of self-contained operation. After a recording session (controlled test, practice or game) is complete the device is connected to a computer via wireless infrared to retrieve the recorded data. The data is displayed in a spreadsheet-like table listing all recorded events, by number, date, time, peak-g force values, and delta-V energy values. This data can then be used to assess the severity of helmet impacts sustained by the athlete, and potentially used to determine concussion severity for impacts that are unusually high in amplitude and energy. The device can also serve as a tool to identify impacts that may be of concussion severity but that may not have been reported as such by the athlete himself to his coaching staff.