

Flexible & Wearable Electronics Application Experiments



Northern Sports Insight and Intelligence Oy

Northern Sports Insight and Intelligence provides tools to measure physical forces acting on a head while doing sports, and translates them into objective, quantitative, valuable and actionable information.
www.act-tracker.com



Problem to be solved

ACT Head Impact Tracker is a measuring device for head impacts and forces acting on a head while doing sports. Frequent head impacts may and do occur in multiple sports, across all levels, age groups and genders. This means the product and service must meet a very wide variety of needs and wants, in many different sports, meet sport and user specific demands and match wide variety of use cases.

Solution provided by SmartEES

The original ACT Head Impact Tracker head sensor is meeting well the needs of non-helmeted sports like football, basketball and handball, as well as certain helmeted sports with specific helmet types (like American Football). But it has its gaps in usability in many helmeted sports with different helmet models, and was not well perceived by certain athlete profiles. Through SmartEES, a second sensor type was developed to complement the range of sensors with which impacts and forces acting on a head could be measured while doing sports. To address the needs and use case scenarios, some key features and functionalities were added to the new sensor. The lower profile, lighter weight and increased bendability are enabled by the flexible electronics design.

Business model & impact

ACT 2.0 is a measurement device and not intended to be a medical device. That is why sports tech, sports wearables or sports monitoring/analytics is the main market. At the moment the company is testing traction for ACT Head Impact Tracker in different sports and with different actors in sports (individual athletes, teams, clubs, unions, federations). In long-term it may be that the sports market is not the only one targeted, but also home healthcare monitoring (especially for elderly) and occupational health could benefit greatly for tracking head impacts and forces acting on a head.

