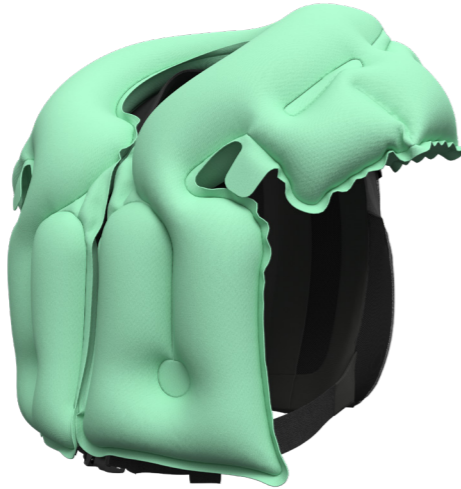


Airbag Backpacks for Motorcycle & Bicycle Riders

Integrated Airbag System

Our backpack concept is a revolutionary safety device designed to protect you in the event of a crash. It functions as a regular backpack, but with the added safety feature of a folded airbag module incorporated into the harness.

Injury data for motorcyclists and bicyclists reveal that the most common injuries are to the head, shoulders, arms and chest leading to complicated medical care and long rehabilitation. Our backpack concepts protects the shoulders, chest and neck areas.



Backpack front view, inflated.



Backpack rear view, inflated.

Key Features:

- Customized backpack, standard harness with integrated airbag
- Automotive standard cold gas generator
- One-Piece-Woven cushion: Superior design meeting automotive standards
- Electronic Control Unit (ECU) deploys the airbag instantaneously
- E-connectivity to Autoliv Safety Cloud
- Machine learning-based algorithm based on actual crash test data

Airbag Vests for Motorcycle Riders

Integrated Airbag Vest

Airbag system concept for customized integration in various upper-body motorcycle protective garments. Developed through extensive research, simulation, crash data and real life safety testing.

Key Features:

- Automotive standard cold gas generator
- One-Piece-Woven cushion: Superior design meeting automotive standards
- Electronic Control Unit (ECU) deploys the airbag instantaneously
- E-connectivity to Autoliv Safety Cloud
- Machine learning-based algorithm based on solid crash test data
- Reusability: Self service inflator change

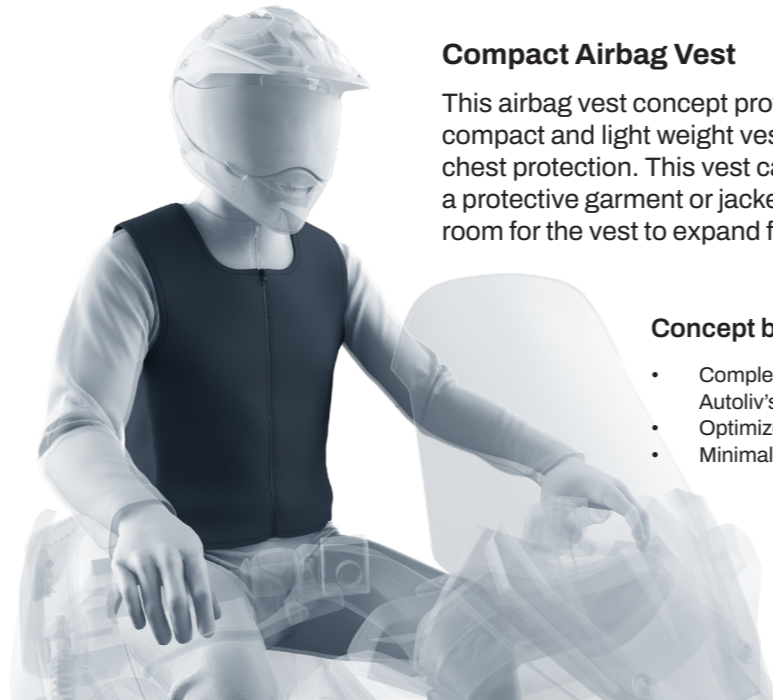


Compact Airbag Vest

This airbag vest concept provide the rider with a compact and light weight vest design with optimized chest protection. This vest can be worn over, or under a protective garment or jacket, as long as there is room for the vest to expand fully.

Concept benefits:

- Complete motorcycle safety vest with Autoliv's integrated airbag system
- Optimized for safety and ease of wearing
- Minimalistic design



Contact us

Airbag System for Motorcycles

Integrated Airbag System

Using advanced simulation tools and numerous full-scale crash testing, we have developed an airbag system for motorcycles.

This complete system concept includes an Electronic Control Unit, airbag module and crash sensors. The system is designed to deploy in the event of a frontal crash.

In-depth crash analysis indicates that this system can significantly reduce the risk of serious and life-threatening injuries, potentially altering the outcome for riders in targeted crashes.



Components for Safety Solutions

Autoliv's on-rider solutions use key components like inflators, airbag cushion, and ECU, ensuring rapid deployment and effective chest protection in the event of an accident. The **inflator** is the device which generates and/or releases gas into the airbag cushion after receiving a signal from the ECU.

This process, from when the ECU detects a crash to the full inflation of the cushion, takes just a few milliseconds. The **cushion** is specifically designed to protect the most vulnerable areas of the body in the event of a crash.

Key features:

Cushion

- Lightweight material capable of repeat deployments
- Woven in tethers (WIT) technology:
 - Replace zero depths areas with WIT technology
 - Control the inflation with WIT to provide targeted protection depth in localised areas of the OPW.

Inflator

- Flexible design
- Small diameter & light weight
- Different functioning time
- Wide performance range

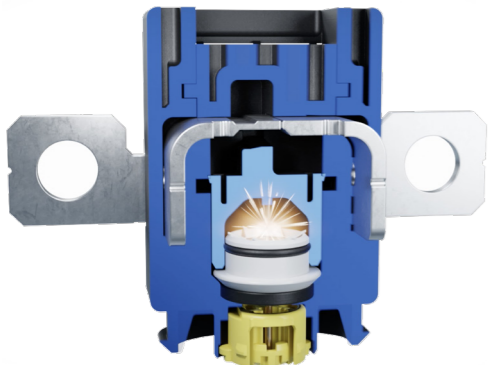


Pyro Safety Switches

The pyrotechnical safety switches breaks current and prevents fire in case of electrical malfunction or vehicle crash events. Our products are applicable for low to high voltage products.

Key features:

- Operation time in tenths of milliseconds
- Simple and robust design
- Pyrotechnics driven, proven in airbags & seatbelts
- Highly safe handling during transport & installation
- All our products are CE & UKCA compliant

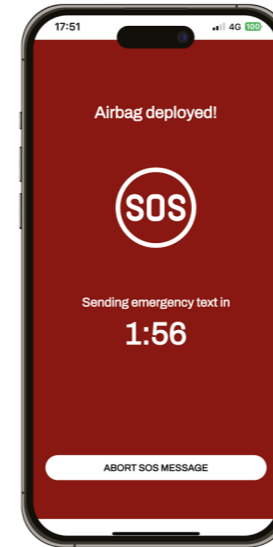
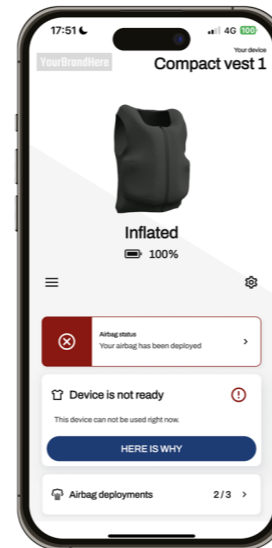
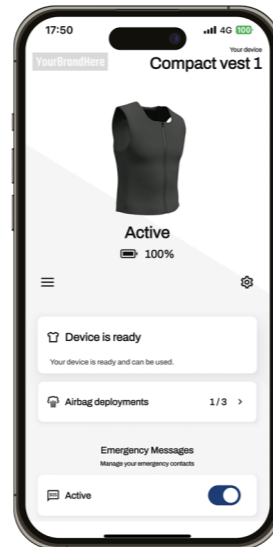


Airbag Connectivity Application

The Autoliv **Airbag Connectivity Application** concept is a cross platform mobile application meant to help riders manage their airbag enabled wearables and devices. With the help of this application concept, users are able to monitor or change their device's arming status, battery and firmware as well as guiding them towards how to prepare the product for use.

The **Airbag Connectivity Application** also helps users manage emergency contacts and make sure that the right people are informed in the event of a crash and allows the user to share the location where the accident took place. This application also holds information about terms and conditions for using the related products.

This concept is meant to be tailored to your company's needs and come as a non-branded application for you to enter your brand and company profile on. Please reach out to us for more information on how this system can increase safety together with your products.



Autoliv Motorcycle & Bike 360° Holistic Safety Approach

As a global leader in automotive safety for more than 70 years, Autoliv is committed to enhancing motorcycle safety through a comprehensive **360° Holistic Safety Approach**.

Recognizing that no single solution can prevent all injuries, we focus on protecting riders during collisions by mitigating impact forces and safeguarding critical body parts. Welcome to discover our new safety concepts and how these can be adapted for your products.

