External Airbag System

Utilizing integrated airbags and a crash detection system to reduce harm experience by passengers during a collision.

It is estimated that automobile collisions cause 1.2 million fatalities worldwide and 4.8 million injuries yearly.

In order to reduce the number of collisions that cause harm to passengers, external airbags could be integrated into car panels. Airbags are used to dissipate the energy caused by impact during a collision. These airbags would be deployed when onboard sensors indicate an imminent collision with an incoming object or surface.

Heavy-duty airbags have been used to reduce the impact experienced by Martian landers on the surface of Mars. These segmented airbags could be optimized and reduced in size for use with cars.

Airbags are integrated behind the panels on the vehicle.

Motion sensors detect potential collisions in 360 degrees around the vehicle.

Sensors around the car constantly monitor and detect incoming objects and surfaces.

These sensors can be used to predict an imminent collision.

If a collision is imminent then appropriate airbags deploy.

Airbags significantly dissipate impact energy and reduce harm to passengers.