Developing Safety Technologies

Honda's approach to safety

Safety for Everyone

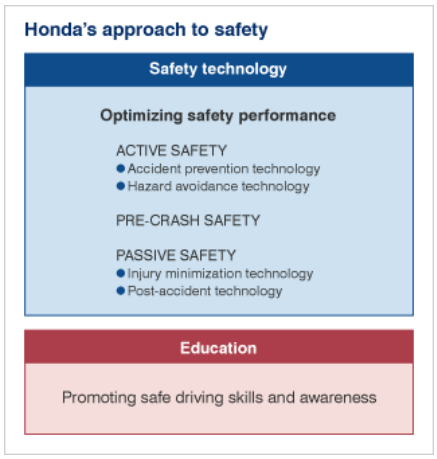
Honda's commitment to Safety for Everyone is not limited to the needs of car drivers and motorcycle riders but rather extends to passengers, pedestrians, and occupants of all vehicles—in a word, to everyone on the road. We will continue to develop and refine its innovative technologies and work to equip our automobiles and motorcycles with the most advanced, effective safety technologies possible. Our goal is nothing less than the safety of all those who share the road in our mobile society.

Safety through technology and education

Aiming for Safety for Everyone, Honda is tackling safety issues from both product and educational perspectives. We're working to ensure that our vehicles deliver the best possible safety performance. We're also promoting safe driving skills and awareness among our customers and society at large. Honda has always been in the vanguard of safety, leveraging original intelligent systems to bring active safety technologies to market.

Honda was the first automaker in Japan to introduce many of the safety technologies used in today's cars, including threepoint seat belts, the Anti-lock Brake System (ABS), SRS airbag system, Vehicle Stability Assist (VSA) and Collision Mitigation Brake System (CMBS).

Honda has always been a leader in developing both active and passive safety technologies, including car bodies designed to enhance occupant and pedestrian safety. As a leading motorcycle manufacturer, Honda has taken the initiative in introducing motorcycle airbag systems, the Combi Brake System (front-rear braking force distribution system), Combined ABS (front-rear braking force distribution ABS) and other advanced braking systems.

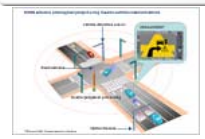


We will continue to pursue both product safety and traffic safety education, leveraging the synergistic benefits of both to contribute to a safer mobility society.

Our stance on developing safety technologies

Honda believes that safety is a prerequisite of mobility. We set ambitious targets in the ongoing development of our advanced safety technology in an effort to maximize the safety performance of all our products and provide Safety for Everyone.

Evolution and developing safety technologies



Honda is conducting proving tests in Japan, North America, and Europe related to the development of systems designed to alert drivers to potential safety issues.

Related websites

Safety initiative website

Our stance on developing safety technologies

The fundamentals of safety technology development

Setting ambitious targets and developing advanced safety technology

Various safety standards for automobiles and motorcycles are in force worldwide. Proactively complying with the laws and regulations of each country and region and aiming to meet its own even higher standards, Honda strives continuously to enhance the safety performance of its products.

Honda believes that safety is a prerequisite of mobility. We're setting ambitious targets in the ongoing development of our advanced safety technology, optimizing the safety performance of all our products.

Pursuing safety at every stage

Working toward the objective of realizing Safety for Everyone, Honda is developing technologies and equipment in support of everything from traffic safety training to post-accident emergency technology. We're working on both active and passive safety initiatives for automobiles and motorcycles while also developing pre-crash safety technology for automobiles. With power products, our development of a wide range of products has been guided by our own Honda Power Products Safety Requirements.

ACTIVE SAFETY

The objective of active safety is to enhance traffic safety through the following measures: traffic safety education, accident prevention technology that helps the driver avoid dangerous situations, and hazard avoidance technology that helps the driver take preventive action in the face of imminent danger.

PASSIVE SAFETY

Passive safety is focused on minimizing the injuries and damage that may occur in the event of an accident. Initiatives are broadly divided into technology for minimizing injuries, which focuses on the protection of vehicle occupants and pedestrians at the moment of impact, and technology for minimizing post-accident danger, which focuses on limiting injuries and damage after an accident has occurred.

PRE-CRASH SAFETY

Pre-crash safety is a new approach to automobile safety technology that embraces both active and passive safety. Some Honda pre-crash safety technologies warn drivers of an unavoidable collision or risk of collision and activate brakes and seat belt pretensioners to help minimize injuries and vehicle damage.

Safety technologies for motorcycles and automobiles

	ACTIVE SAFETY			PRE-CRASH SAFETY	PASSIVE SAFETY	
	Traffic safety education	Accident prevention	Hazard avoidance	PRE-CRASH SAFETY	Injury minimization	Post-accident
Motorcycles	Riding simulator	Advanced Safety Vehicle 4 (ASV-4) R&D	Combi Brake System (front-rear braking force distribution)		Airbag systems	
	Riding trainer				Body Protector	
	Bicycle simulator	Visibility enhancement R&D (FACE, LONG)※1,2	Combined ABS (front-rear braking force distribution ABS)			
Automobiles	Driving simulator	Adaptive Cruise Control (ACC)	Anti-Lock Brake System (ABS)	Collision Mitigation Brake System (CMBS) with E-Pretensioners	Collision-Safety Body Design	Emergency cal services
	Safety Navi	Lane-Keeping Assist System (LKAS)	Electronic Brake Distribution (EBD)		Seatbelt systems	Collision Detection Door Lock Release System
		Adaptive Front Lighting System (AFS)	Vehicle Stability Assist (VSA)		Airbag systems	
		Multi-View Camera System	Motion Adaptive EPS (Electric Power Steering)		Child restraint systems	
		Advanced Safety Vehicle 4 (ASV-4) R&D			Pop-up Hood System	
		Driving Safety Support Systems (DSSS) R&D			Active Head Restraint	

※1 FACE : Facial Attention for Conspicuity Enhancement
※2 LONG : Longitudinal Oriented Normative time Gap compensate

Evolution and developing safety technologies

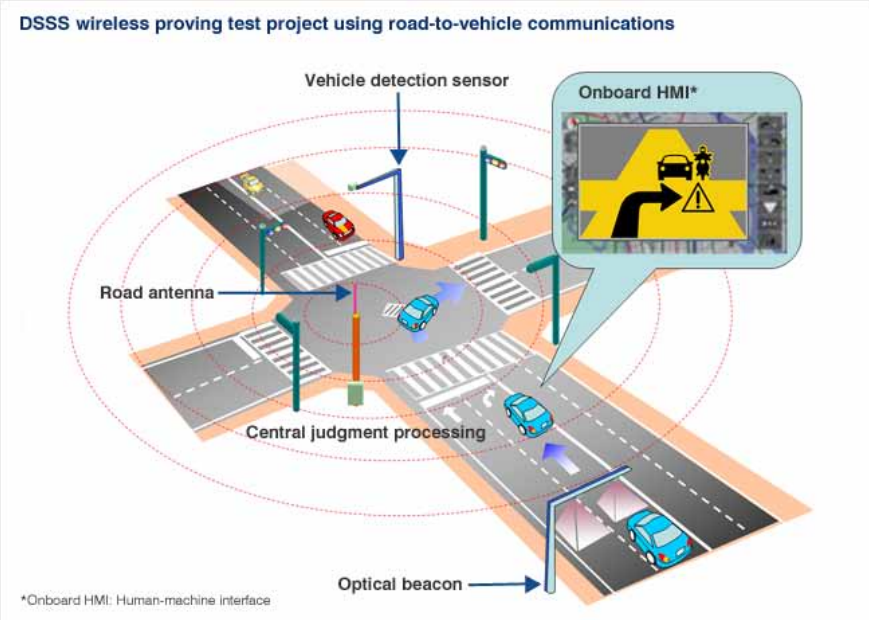
Participating in proving tests for driving safety support systems

Japan: Participating in DSSS wireless proving tests using road-to-vehicle communications

Honda has participated in proving tests of driving safety support systems (DSSSs) that use road-to-vehicle and vehicle-to-vehicle communications with vehicles such as the Honda ASV-4*, an automobile equipped with advanced safety technology. These systems are designed to use road-to-vehicle communications to prevent traffic accidents caused by lags in driver recognition and judgment as well as driver error at intersections with poor visibility and similarly hazardous locations. Four such systems using optical beacons have been operational in Tokyo and Kanagawa Prefecture since April 2010: a system for keeping drivers from failing to notice traffic signals, a system for keeping drivers from failing to notice stop signs, a system for preventing head-on collisions, and a system for preventing rear-end collisions.

Additionally, a proving test was launched in Tokyo during fiscal 2010 to bolster optical beacons with road-to-vehicle wireless communications in an effort to prevent accidents at intersections with poor visibility and similarly hazardous locations by accommodating continuous changes in targeted phenomena that would be difficult to deal with using optical beacons alone. Specifically, the proving test consists of three systems: a system for preventing collisions caused by right-turning vehicles, a system for keeping drivers from failing to notice pedestrians crossing the road, and a system for preventing collisions caused by left-turning vehicles. The Universal Traffic Management Society of Japan (UTMS) is spearheading development of the systems through a public-private initiative, and Honda is participating in the wireless proving tests in an effort to commercialize them.

*ASV-4: A vehicle equipped with pre-crash safety systems using advanced technologies designed to support the driver in safer driving. The ASV project, conducted under the auspices of the Japanese Ministry of Land, Infrastructure, Transport and Tourism since 1991, involves the cooperation of industry, academia, and government. Phase 4 (2006 to 2010) has been completed.



An example of a DSSS wireless proving test project using road-to-vehicle communications: System for preventing collisions caused by right-turning vehicles using wireless communications

North America: Participating in the U.S. Connected Vehicle project

In the U.S., government and industry are looking to dramatically reduce traffic accidents, congestion, and the environmental impact of driving through the use of advanced information and communications technologies. Honda is working with other U.S. automakers as part of the Connected Vehicle project to conduct research into the commercialization of safety systems that use such technologies. Specifically, we're working to develop security technologies for vehicle-to-vehicle communications systems, interoperability technologies, mechanisms for verifying how well drivers accept the system, and communications standards. We plan to present findings from this research at the ITS* World Congress in Orlando, Florida, in October 2011.

A Connected Vehicle test

Europe: Participating in Drive C2X, an EC-funded FOT project

Honda will conduct proving tests as part of Drive C2X field operational tests (FOTs) in an effort to standardize and commercialize ITS* systems in Europe. The project brings together European automakers, business partners, research institutions, and other organizations in a pan-European initiative. Drive C2X, which utilizes applications using a variety of road-to-vehicle and inter-vehicle communications technologies

to boost safety, environmental friendliness, and convenience, is being pursued together with the general public on actual roads. Honda's primary area of responsibility under the plan, which extends to December 2013, is systems addressing motorcycle safety, and we have already begun activities on-site in Europe.

*Intelligent transport systems (ITSs) are a new type of advanced system being built to resolve road transport issues such as accidents and congestion by using state-of-the-art information communications technology to network people, roads, and vehicles with information.