

## Honda demonstrates new technology to prevent cars hitting pedestrians (w/ Video)

September 4 2013, by Bob Yirka



(Phys.org) —Honda Motor Company Ltd has posted a video on its website demonstrating new technology it's developing to help prevent cars from running into pedestrians. Based on already existing vehicle-to-vehicle (V2V) network technology, the system called by Honda an advanced vehicle-to-pedestrian (V2P) safety system aims to warn both drivers and pedestrians carrying smartphones of a possible collision.

V2P, like V2V uses the Dedicated Short Range Communications



(DSRC) protocol as a means of communication. It's implemented in hardware being developed by Honda. In essence it's an automatic system of broadcast and receiving of information pertinent to drivers and pedestrians. The hardware carried by the pedestrian is embedded in a smartphone and constantly monitors the position of the person holding the phone (using already embedded GPS and accelerometer) and the direction they are heading. Similarly, technology embedded in a car notes the location of the car, its direction and speed—all while continuously listening for broadcast information from devices held by pedestrians. A computer in the car constantly analyses all of the available information and constructs virtual scenarios in real-time. When the system projects that a pedestrian is about to cross the path of the moving vehicle, a warning is flashed on a heads-up display device in the vehicle—a message is also sent to the pedestrian—that message information is converted to a sound similar to the noise a truck makes when backing up and a warning message that is displayed on the phone's screen.

Honda says that the technology can also let drivers know if the pedestrian is listening to music, talking on their phone or texting—all indications that the person is likely not paying <u>full attention</u> to his or her real-world surroundings. Also, they say the technology can be useful in multiple scenarios such as when an approaching pedestrian is hidden by other vehicles or when a car is backing up. They also report that they are developing similar technology for cars and motorcycles, warning both of the possibility of a collision.

Other companies such as General Motors have also announced plans for implementing such systems in cars in the near future. Most such ventures are a part of single initiative being driven by the U.S. Department of Transportation. If the technology proves capable of saving lives, the DoT might insist that all cars sold in this country be equipped with such a system, provided they can get smartphone makers to opt in as well.



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