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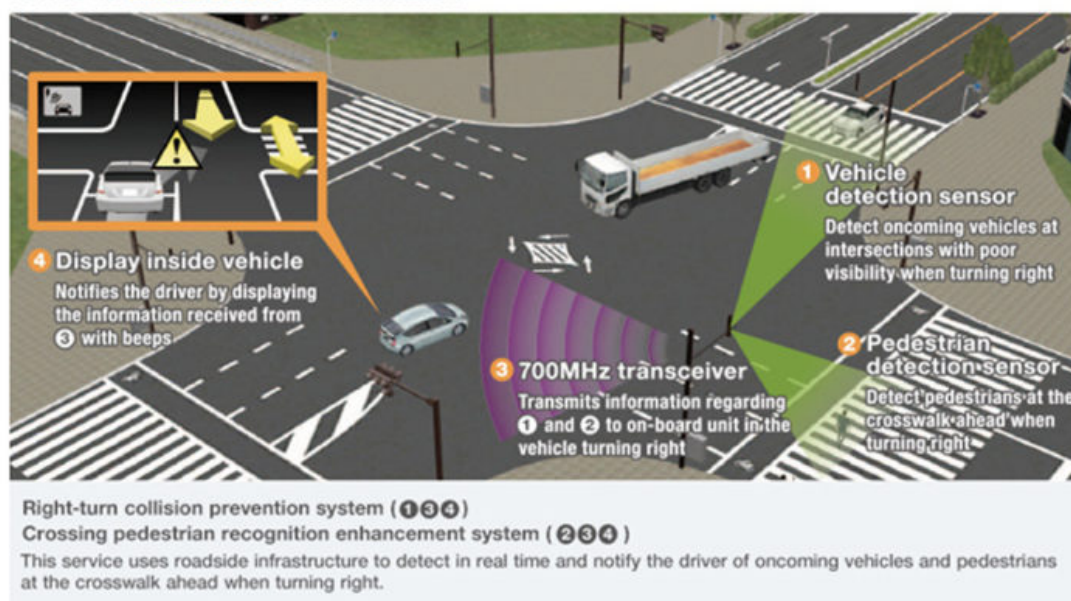
'TALKING' CARS TO BE AVAILABLE TO CONSUMERS BY YEAR END

SPORT & FITNESS

Toyota's ITS is an on-board system that enables cars to communicate with each other.

In anticipation of fully fledged driverless cars, we have already seen a computer-assisted driving system from the US, and now Toyota has expanded its Intelligent Transportation System — ITS — creating an on-board system that enables cars to communicate with each other.

Vehicle-to-Infrastructure Communication



Vehicle-to-Vehicle Communication



Crossing collision prevention system

This service uses direct communication between vehicles to exchange

Vehicle-to-Pedestrian Communication



Pedestrian existence advisory system

The vehicle communicates with terminals (transmitters) which are carried by pedestrians to notify the driver of pedestrians, including children, elderly persons and other road users in

ITS works by detecting nearby activity, enabling cars to be contextually aware of roads, pedestrians and other cars, and alerting drivers when unseen dangers are approaching. Rather than relying on field of view, as in-car camera systems do, ITS enables cars to communicate impending dangers to each other, even if they are approaching from a blind spot. It could also send information about low-speed or stationary vehicles ahead to prevent rear-ending. Beacons installed roadside will alert drivers of traffic light statuses, to send a warning if they are trying to run a red light, and stop sign beacons will let drivers know of intersections requiring them to come to a complete stop. Toyota is already working with authorities in Japan on field tests of this technology — the data can also be used by traffic officials to track roads in real-time and use the information to better manage congestion.

40 percent of road traffic accidents in Japan are caused by drivers failing to notice vehicles or pedestrians at and near intersections. Could this technology be the missing piece to safe, autonomous cars?

28th October 2015

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