



Discovery

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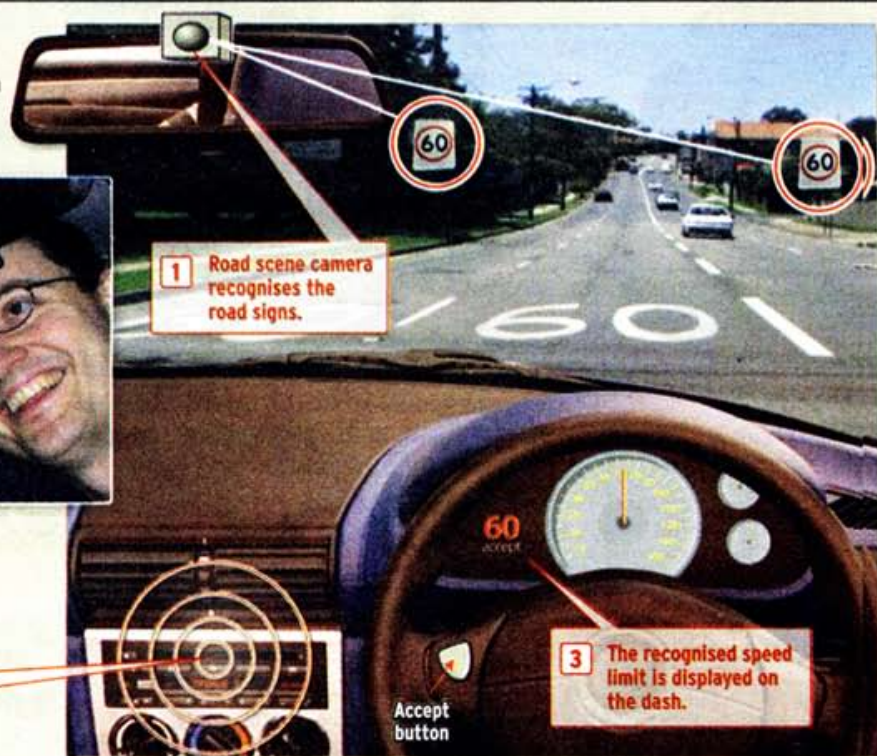
Next, cars that can slow down when they spot the speed sign

FOCUS ON SAFETY

The same revolutionary technology that allows machines to see and track human faces is being used to improve road safety and save lives.



Jochen Heinzmann of Seeing Machines Ltd installs the speed sign camera.



1 Road scene camera recognises the road signs.

2 An alarm sounds if the car's speed exceeds the limit.

3 The recognised speed limit is displayed on the dash.

OTHER POSSIBILITIES

Automated braking

One option would be to connect the system to the vehicle's brakes to ensure drivers keep to the speed limit.



Brakes are activated slowing the car to the correct speed limit.

THEY are an expense car owners can ill afford as the price of petrol skyrockets.

Speeding infringements cost NSW motorists tens of millions of dollars a year, with speed cameras alone netting \$57 million.

But new technology being pioneered in Australia could make fines for leadfooted drivers a thing of the past.

A speed sign recognition system, which uses a camera to read limits posted by the road, could be on the market within two years.

When a driver began to speed the device would ring an alarm or possibly automatically slow the vehicle to comply with the limit.

"I'm sure it's going to help people reduce both speeding fines and the risk of having a speed-related

accident," said Jochen Heinzmann from Seeing Machines Ltd, which is developing the technology.

The news comes as Australian manufacturers look at a host of ways to improve the cars we drive.

The Seeing Machines project is in association with the Auto Co-operative Research Centre, a part-federally funded coalition of vehicle makers, component manufacturers and universities.

Various projects are being undertaken to update the technology used in Australian cars.

One group is exploring the possibility of making ultralight cars which, while remaining safe and strong, would weigh much less than conventional vehicles. Materials such as ceramics and aluminium could be used in place of the traditional steel.

Another initiative is looking at using virtual reality technology in the design of vehicles.

Intelligent vehicle-safety systems being developed include collision avoidance systems that warn drivers if they are leaving their lanes and can recognise moving objects such as pedestrians.

Systems under development in Europe have used laser technology known as "light detection and ranging", or lidar, to gauge the distances between test vehicles and other objects.

Seeing Machines's speed sign recognition system uses a camera and a small computer mounted near the front windscreen.

As the vehicle is driven along, the camera takes in the surrounding streetscape.

Like the facial recognition systems used to identify the faces of terrorists in large crowds, the device's computer will be able to discern speeding signs from the jumble of lights and colours and shapes along the roadside.

It reads the signs and displays the local speed limit to the driver to help him or her stick to the limit.

If they program the device to do so, drivers will hear an alarm sound when they begin speeding.

Another option would be to link the device to the braking system to automatically slow the vehicle if it is found to be speeding.

Heinzmann said that option was unlikely to be adopted as motorists had shown a preference to be in full control of their vehicles.

He said the technology could be available in two years.