The **Locust's** Motion-Sensitive Neurons

LOCUSTS migrate in swarms as thick as "80 million locusts per square kilometer [0.4 sq mi]." Yet they avoid colliding with one another. What is their secret?

Consider: Behind each of a locust's two compound eyes is a motion-sensitive neuron called the lobula giant movement detector (LGMD). When a collision appears imminent, these neurons send messages to the wings and legs, prompting the locust to act quickly. In fact, its reaction is five times faster than the blink of an eye.

Inspired by the locust's eyes and neurons, scientists have developed a computerized system that allows a mobile robot to detect and avoid approaching objects, without the need for complicated radar or infrared detectors. Researchers are applying this technology to vehicles, giving them a fast and accurate warning system that could reduce collisions. "There's so much to learn from such a simple insect as the locust," says Professor Shigang Yue at the University of Lincoln in the United Kingdom.

What do you think? Did the locust's motion-sensitive neurons come about by evolution? Or were they designed? ■