



**NewScientist**

## Hot shopping

- 18 March 2000 by [Duncan Graham-Rowe](#)

HARD as it is to believe as you struggle to find things, supermarket layouts are the result of careful planning. And to make sure the design is right, your every move could soon be tracked by a heat-seeking computer network.

Retailers invest heavily in research that reveals how to design stores to maximise profits. To do this, researchers furtively follow customers through shops, writing down everything they do.

But IBM has now developed a computer system called Footprints that uses a network of infrared detectors to track shoppers as they move through the store.

Footprints will not only allow store managers to see how customers respond to new products, says Howard Sachar, head of the project at IBM's Research Center in New York, it will also allow them to manage their stores better.

The advantage of using infrared images is that they are less "noisy" than normal videos. To work out a shopper's path, all the computer needs to do is track areas of temperature changes. The infrared detectors slightly overlap each other, making it easy to track blobs of temperature changes from one sensor to the next.

Because the system doesn't use video images, Sachar says the technology also protects consumers' privacy. "One of the nice things about this technology is that we are only interested in warm bodies," he says. But in theory, matching the times "blobs" reach tills with details of debit or credit card transactions could reveal people's identities.