

Today's media is full of stories about child obesity and how modern children do too little physical activity. That could all change thanks to a clever new insole.

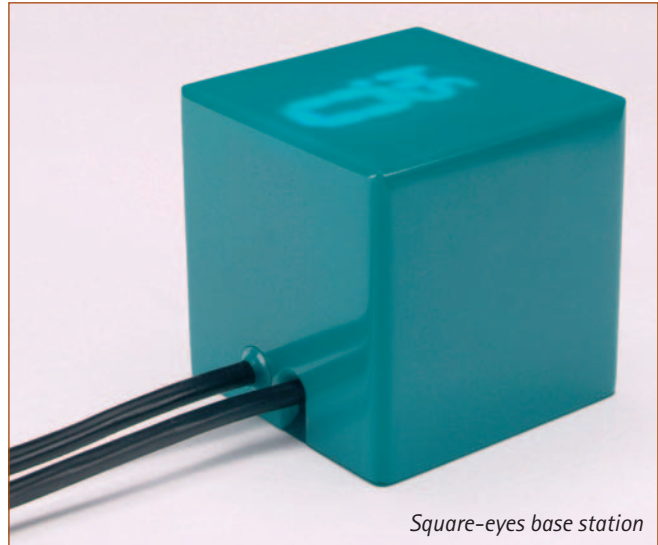
Square-eyes

Gillian Swan, a final year design student from Brunel University in London, has designed an insock for children's shoes that records the amount of exercise a child does during the day and converts it to television watching time. The project, called Square-eyes, works on the basis that the more exercise a child does, the more television viewing time they earn.

The insock contains two buttons. The first records the number of steps taken by the child during the day. The second is used to trigger transmission of the total number of steps taken to the base station using a radio signal. The base station, which is connected to the television via an extension lead, then calculates the TV time the child has earned and displays it on the station's LCD screen. Once their earned television time runs out, the TV automatically switches itself off and is disabled until more exercise credit is earned.

The insock would be made either in a range of sizes to a specific shape or could be cut down to fit like many other insert socks on the market. The electronics it contains would be fully sealed much like the coloured lights in the soles of some trainers, so it is assumed they would be washable. At present, the electronics are rather bulky but there is no reason why they could not be sufficiently miniaturised if the concept is commercialised.

"Today's children are exposed to a raft of television programmes and children's channels," says Gillian. "Ten years ago, children were entertained by playing games with their



Square-eyes base station



Insock prototype

Statistics

Between 1995 and 2003 the prevalence of obesity among children in the UK aged between 2 to 10 rose from 9.9% to 13.7%.

At current rates 20% of boys and 30% of girls will be obese by 2020.

Cost of obesity to the economy estimated at up to £3.70 billion per year including:

- £4.90 million for treating obesity
- £1.10 billion for treating the consequences of obesity
- £1.10 billion indirect costs for premature death
- £1.45 billion for sick leave from work

Source: UK Department of Health

friends, now they are cooped up in their bedrooms watching hours of television programmes. Square-eyes will help them to include exercise in their daily routines from an early age." The idea is to link it to the television in the child's bedroom and to offer parents a 'last resort' option to removing it entirely.

For girls, 12,000 steps is the ultimate daily goal and for boys it is 15,000. Two hours is the maximum recommended time that a child should watch the television per day. Therefore, taking the maximum number of steps advised and the recommended viewing time, 1,500 steps would permit 15 minutes viewing time.

It is certainly a very novel idea and clearly shows there are some clever young minds around. Paul Turnock, Design Director at Brunel's School of Engineering and Design commented: "This project is an excellent example of realising a concept and creating a wholly feasible future project. Square-eyes will raise awareness amongst the family of their sedentary lifestyle and bring about a change in their behaviour." 