

BRANTHAM ELECTRONICS

Electronics and Software for Road-show

Design of visitor challenges, custom hardware interfaces, bespoke PC software, database interfacing and commissioning

Brantham Electronics most recent project was the design of specialised hardware and software for a Major Sports Clothing manufacturer. The road-show is currently touring the UK to promote the manufacturer's footwear and it will be located at sporting events such as the London Marathon and at schools, universities and shopping centres.

Visitors to the road-show will have the opportunity to have their feet dynamically examined by specialist equipment and then be given the most appropriate trainers to participate in sports 'challenges'.

The project consists of ten PCs connected to a server which is connected to the internet. The custom hardware interfaces and software were designed for registering visitors; controlling 'the challenge' and uploading the visitors' results to a database where they can be viewed later by visiting a website - further details are supplied below.

When a visitor registers, he or she is given an ID card on a "lanyard" (on a chain worn around the neck). The visitor then walks through a tunnel of monitors, each showing a video by a famous sports personality and these play in order such that as one finishes, the next begins. Following the tunnel 'experience' the visitor then has his or her foot dynamically examined by specialist equipment and is given the most suitable running shoes.

Next the visitor participates in a number of sporting 'challenges'. Each 'challenge' is started when the ID card has been read and following each 'challenge' the results are uploaded to a database.

During each 'challenge' high-definition videos are shown depicting famous sports personalities who instruct the visitors in the importance of having the appropriate equipment and how best to use it.

One event is a test to see how fast the visitor can take-off from running blocks and run 6 metres. Next to the race track, a life size video of a world class sprint runner is projected on to the wall. This video is synchronised to start at exactly the same time as the visitor commences his or her 'race'. The visitor can then compare his or her running time with that of runner.

After completing the challenges the visitor's ID card is read by a 'Farewell Monitor' where the results are displayed. These can also be found by visiting the manufacturer's website.

The PCs controlling each challenge start and stop at times to coincide with the video instructions, obtain the results and send them to the database on the Server. On the running race the time taken is recorded when the finishing line is crossed.

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