

## **The Future Just Arrived – and You'll be Wearing it on Your Feet**

In one of the most iconic moments in modern cinema, Marty McFly, played by the legendary Michael J. Fox, in *Back to the Future 2*, squats to adjust a pair of Nike trainers he's procured from the imagined 2015 he finds himself in. Delighting audiences at the time, the trainers self-adjust and the Nike logo is displayed, moving on an LED strip which ran across the tongue. It took 26 years, but in the Spring of 2016 Nike revealed the *Nike Mag*, a self-adjusting trainer replete with glowing LED branding. The news of the Mag was announced by Michael J. Fox himself on Twitter. The picture of him sitting to put them on was retweeted tens of thousands of times filling the Twitterati with a sense of nostalgia and excitement that the future was finally here. They were right. The future has arrived, but it's a heck of a lot more impressive than a self-tightening strap and a little LED screen.

American start-up *Vixole* are almost at the stage where they will be releasing their *Matrix* range of so-called 'e-sneakers', and they make the Nike Mag look like a Lancashire clog.

Modest in design, their key feature is a 22ppi LED display and eight sensors wrapped around the heel of the trainer and housed within injection moulded thermoplastic polyurethane, a highly durable, water-resistant and flexible material. Using the trainer's synchronised app, wearers can upload and display multi-coloured images and animations including images taken on their phone's camera. Motion interaction sensors monitor and record steps measuring such factors as gradients climbed and calories burnt. Haptic sensors can be paired with GPS and cause vibrations in each foot signalling upcoming left and right turns. Paired with a mobile device they can also alert wearers to text messages, email and phone calls.

With the makers insisting the technology be open-source, the trainers can be integrated with existing apps including virtual reality games, so for instance, if you kick with your right foot – so does the character you're playing. Other sensors are able to detect sounds and respond with appropriate visuals, and an NFC sensor even allows wearers to add each other on social media by bumping trainers together. After a hard day's wearing, they are placed on a wireless charging board, and are back to 100% capacity in just two hours.

Marty McFly eat your heart out.

The arrival of the Vixole Matrix e-sneaker is one of those events that makes you wonder what will be available in another ten years. Mind you, it probably won't be long before you can find out by simply asking your shoes and getting an accurate answer.

If you're not already braced for the future then you need to be, it's already here.