**THE CHALLENGE**

Horse racing is a multi-billion dollar industry, and yet existing products do not allow trainers to take the scientific approach that has brought such benefits to the performance of elite human athletes. Horse training methods have remained virtually unchanged for 150 years. The capability and demand for connected devices for the Internet of Things (IoT) is growing rapidly so there is an opportunity with this new technology trend. The challenge was to create practical and effective connected monitoring devices in the demanding commercial equine training environment.

**THE SOLUTION**

Gmax technology deliver single integrated systems which can be fitted as part of normal tack, combining state of the art sensors for: position, speed, acceleration, biometric data, and environmental conditions. Data from the sensors is interpreted live using sophisticated algorithms to detect useful features from the raw data. A database records the data and allows a complete training history to be analysed for comparisons of performance over time. Using AJAX web technology, the data can be played live or retrospectively on an interactive map.

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The Gmax ‘Vetcheck’ is the first hand held equine ECG and is in use at Dubai International Endurance City. The flagship product, the Gmax ‘Trackwork’ is used to gather live performance data from groups of training horses, allowing owners and trainers to monitor fitness during training anywhere in the world. It is in use in the UK by the Coral Champions Club and it enables thousands of their members to follow the training of their horses over the internet. Finally, Gmax ‘Treadmill’ monitors horses during treadmill exercise sessions so that a complete history of training responses can be created.

**BENEFIT TO THE CLIENT**

Gmax provides wireless real-time monitoring of total horse performance allowing visionary owners, trainers and racing institutions to gain significant advantages. Using Gmax, the application of the latest scientific training methods becomes possible, allowing end users to maximise the potential of their horses. Gmax also enables powerful multimedia presentations of races and training, enhancing understanding and enjoyment of the sport, and so appeal to a new generation of customers. The Gmax platform has applications beyond equine training. In September 2009, Gmax was used to provide live online progress tracking of the Tour of Britain cycle race, just one of many long distance sports to which the technology can be applied. Its ability to monitor biometric parameters remotely has many applications in emerging telemedicine and personal wellness products. In 2014 Gmax Technologies Ltd spun out of Cambridge Design Partnership and was launched as a new company to commercialise advanced connected and wearable devices to revolutionise sports training.

www.gmaxequine.co.uk