

Breakthrough Development in Sports Motion Analysis Systems

Lower Body Weight Shift and Balance Captured by Tactilus Pressure Mapping Technology



The Tactilus® sensor pad, which is underneath the green mat, instantantly transmits data to the Tactilus® body mapping software visible on the laptop screen. The sensor pad is like an "electronic skin" which operates by the principle of piezoresistance.

Professional golfers and instructors know that the distribution of weight and balance are key components of power in a swing. They realize that speed and power come from the lower body and not just the hands and the arms, but they lacked one vital tool to help them take action to shift their body weight.

Now the balance of a golfer's feet as it goes through a swing can be revealed and quantified thanks to the Tactilus

Body Mapping Analysis System® by Sensor Products Inc. of Madison New Jersey.

According to Mike Malaska, Worldwide Director of Instruction for the Nicklaus Golf Academies, the Tactilus® system enables golfers to easily visualize and comprehend how their weight shifts throughout each swing. "Once golfers get instant feedback from the system about what their feet should do, there is a

much better chance that they will make the necessary corrections,” says Malaska.

Sensor Product's Tactilus[®] Body Mapping Technology gives suppliers of sports motion analysis systems, golf club manufacturers, instructors and others in the industry the tools they need to easily analyze these important swing dynamics.

The Tactilus[®] technology consists of a sensor pad that contains more than one thousand microscopic sensing elements and easy-to-use sophisticated software. As the player steps on the pad, the pressure of his feet is shown as a color coded pressure map that is displayed on a computer screen or LCD monitor. When the player moves, this foot map updates by changing anatomical shape and pressure distribution at a rate of 50 times per second.

Tactilus[®] is also fully customizable for the particular needs of different applications. It is currently integrated within the sports motion analysis system of Vertex Golf, a Texas-based sports technology company. Their very sophisticated software program receives input from multiple sensors, including sound, pressure, speed, and motion and displays these measurements in sync with automatic video playback of each swing.



The Vertex Golf Motion Analysis System shows the Tactilus® foot pressure profile and weight distribution as well as video, speed and motion data.

Vertex uses special high speed video cameras that record each swing at a speed of hundreds of frames per second, producing much sharper images than conventional video cameras and enabling much more effective professional instruction or independent game-improving practice. Golfers get immediate feedback after every shot and can easily see what they're doing wrong.

An array of statistical and graphical viewing options are standard with the Tactilus® system, including region-of-interest; graphical displays of data in bar charts, line scans and histograms; statistical analysis of average/minimum/maximum pressures; total force over any selected area; pressure versus time and more.

The technology has been used to test ergonomic design and comfort in the research and development of products in the medical, chiropractic, rehabilitative and orthopedic areas, as well as many Fortune 500 industrial companies and smaller manufacturing firms.

Sensor Products Inc. is a world leader in the manufacture and distribution of tactile pressure sensing solutions. Their customized and off-the-shelf products are used in applications as diverse as tire testing to semiconductor manufacturing and from R&D labs to space missions.

For further information, contact Jason Blume, Tactilus Project Manager, Sensor Products Inc. at 1.973.884.1755 (USA), info@sensorprod.com or visit our website at <http://www.sensorprod.com/golf>

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