

Measurable Skill Development

Meaghan Ziemba, Editor, WDD

The 94Fifty sensor basketball from InfoMotion Sports Technologies focuses on the repetitive motions seen in a variety of sports to build algorithms around them, pattern them, and create small sensors that can measure point-of-force activities.



For any athlete, sometimes the biggest obstacle you face is yourself. Finding new ways to improve and heighten your skills can be a challenging task, especially when you have no way to measure your progress. InfoMotion Sports Technologies has made it easier for basketball players to measure their skill sets in real time with their new 94Fifty sensor basketball, an advanced digital sport product that breaks down all aspects of a user's game, from ball-handling and shooting to athleticism.

Elite Level of Training

InfoMotion focuses on the repetitive motions seen in a variety of sports to build algorithms around them, pattern them, and create small sensors that can measure point-of-force activities in a variety of sporting drills.

"One of the advantages of the point-of-force approach is that we measure muscle memory, which develops early and responds rapidly to practice," says Mike Crowley, CEO of InfoMotion. "This allows consumers to engage with their own development, because the results can be quickly improved with practice. A skill-based approach also gives us an almost unlimited number of ways for players to compete and engage with others."

The 94Fifty sensor basketball also utilizes technology from Texas Instruments (TI) including Bluetooth/Bluetooth low energy dual-mode connectivity, a digital signal processor (DSP) to perform advanced analytics, and a Qi-compliant wireless power technology that enables the ball to be charged without plugs or wires.

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Published on Wireless Design & Development (<http://www.wirelessdesignmag.com>)



“The ball is used in conjunction with a laptop, in which it wirelessly communicates via Wi-Fi technology,” says Mark Davisson, president of InfoMotion. “The application that runs on the laptop collects a variety of measurements from players; such as dribbling and shooting skills.” From the measurements athletes, coaches, and trainers can see how much control and force is on the ball when it is dribbled, and they can also view the accuracy, arc, and backspin of the ball when it is shot, providing an elite level of training.

Basketball Components

To help track your game, the sensor basketball comes with a base app that includes the following:

- Workout - to improve skills and motivate practice.
- Quick Training - to focus on specific skill areas.
- Compete - for head-to-head competition for up to 4 players.
- Challenge - to interact with other players around the world via Twitter.

Aside from the downloadable app that allows users to interact with their own real-world skills, the basketball features:

- Instant feedback on every dribble, shot-by-shot.
- 50 different head-to-head competition choices.
- Skill-based leveling workouts that get more difficult as an athlete improves.
- QuickTrain shot analyzer for shot speed, shot arc, and backspin.
- QuickTrain ball-handling for power dribbling, speed dribbling, and off-hand dribbling.
- Storage for workout and competition history for up to 4 players for 3 months.
- Wireless recharging and up to 8 hours of battery life.
- Up to 90 feet of range from a hand held.
- Android 4.0.4 and iOS 5.0 compatibility.

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“The consumer basketball contains a sensor pocket that holds the sensor,” says Davisson. “The sensor connects to a charging coil that is embedded into the skin of the basketball, and gets charged wirelessly once the ball is placed on a charging pad that is included.”

To activate the ball, users need to dribble it four times, and then it immediately connects via Bluetooth to any smartphone or tablet whether it’s Apple or Android. Once the ball is activated, results are displayed instantly – about 100 millisecond speeds from action to visual display.

The Future of Sports

Players who are able to see what and where their weaknesses are more motivated to focus on those weaknesses and improve on them. “One example is the ability to dribble with your left hand versus your right hand,” says Davisson. “For years coaches would tell their players that they need to work on their left-hand or right-hand skills. By having that data right in front of them that shows how much weaker their left hand or right hand is, players can focus on doing more drills for that particular hand, making them a better overall basketball player.”

Certain teams can also use this type of technology to improve their overall shooting, passing, and dribbling capabilities, resulting in a crisper and more concise team experience.

“We also see the opportunity to take that real-time information from the basketball and embed it into live sporting events so the audience has the chance to track that information,” Davisson concludes.

Source URL (retrieved on 04/01/2015 - 4:41am):

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