

Rio Games technology

New digital technology is set to transform the sporting experience for athletes, spectators and officials at the 2016 Olympics



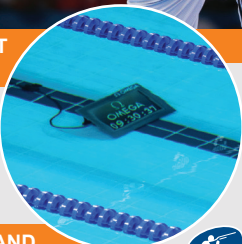
TAEKWONDO

Electronic sensors in padded headgear will record strikes and award points, removing need for referees to call head shots



CANOE SPRINT AND ROWING

Each boat equipped with GPS sensor, allowing fans to instantly see and compare race data such as speed and direction



SWIMMING

Underwater display near turning point of each lane automatically updates lap count, so distance swimmers can focus on performance instead of keeping track of laps



VOLLEYBALL AND BEACH VOLLEYBALL

Teams can challenge referee's call using playback technology. Replays shown on big screen in arena while being reviewed by second official



WEIGHTLIFTING

Camera dolly captures multiple angles of competitor's movement



VIRTUAL REALITY

HD images of opening and closing ceremonies and some sports will be broadcast in 360 degrees to users of Samsung Gear VR headsets



SHOOTING

Laser technology replaces acoustic system, allowing score to be calculated with "millimetric precision". Radio-frequency tags attached to guns so organisers know location of each weapon at all times



ARCHERY

Electronic scoring replaces referee's judgement. System accurate to within 0.2mm and displays score one second after arrow hits target

WEARABLES

Visitors to Rio 2016 can use innovative bracelet like contactless card to pay for goods and services

