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THE POSSIBILITIES OF "MOTION CAPTURE" TECHNOLOGIES IN BIOMECHANICAL ANALYSIS OF GOLF SHOTS

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In many sports it is difficult to imagine a complete training session without special training aids, which provide information about the technique of sports movements and improvement of physical qualities. One such sport is golf.

Modern systems for analyzing a golfer's movements usually use motion capture systems. These systems are based on the processing of visual information in order to extract data from images acquired within a certain time, thus describing movements.

Using this system in the golf stroke, we can determine such biomechanical characteristics as: phase, kinematic, dynamic and energy characteristics [1, c. 47–49]. Phase characteristics include the duration of individual phases of the movement, the entire exercise and the rhythmic-tempo characteristic. Swing phases are determined based on expediency. But basically they are divided into 4 phases: backswing, downswing, impact, and subsequent movement.

The identification of kinematic and dynamic factors affecting the ability to take long shots, in particular club head speed (CHS), is an important area in the development of golf performance. Energy characteristics assess the production, transfer and transformation of energy in the athlete's body and golf club.

Therefore, "motion capture" systems allow you to get information by creating a three-dimensional model of the athlete through mathematical analysis.

References

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