

The effect of starting block configuration on the kinematic parameters affecting the starting performance in swimming

Project no. VEGA 1/0462/22

Annotation

The aim of the project is to identify and evaluate changes in the kinematic characteristics of the starting jump from the OSB12 starting platform and modular plate in swimming with respect to changes in the nature of the basic position on the starting block. It is expected to carry out measurements on 50 swimmers. In the first stage of the research, we will identify and compare significant indicators of the evaluation of kinematic changes of the starting jump from the OSB12 and the modular plate. In the second to fourth stage, we will identify and compare the optimal baseline position in the starting jump from the OSB12 and modular plate, which depends on the level of the support, the foot on the support, the centre of gravity of the body and the location of the dominant lower limb. High-speed cameras and gyroscopes will be used to assess kinematic characteristics. The results of the project will provide new insights that have not previously been explored and these will be applicable in training and competition loads with a focus on improving starting performance in swimming.

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