
Performance measurements and testing in taekwondo



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Introduction



- The reason for this project is lack of proper event-specific testing in Olympic Taekwondo
 - A vast majority of physical tests of Taekwondo athletes are done with general tests like running, jumping or weightlifting movements
 - We aim to create a simple, accurate and valid testing procedure for fundamental techniques in Taekwondo Kyorugi
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Goals



- The goal for this project is to set up a taekwondo-like testing procedure for the Finnish Taekwondo Federation's top athletes
 - The purpose is to measure accurately both reaction and kicking times for some of the most widely-used Taekwondo techniques
 - This is done in order to set standard performance levels required to achieve medals in the international tournaments such as World Championships and European Championships.
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Methods



- Equipments:
 - ❖ a visual reaction device
 - ❖ an infrared-based contact mat
 - ❖ an audio trigger for identifying the reaction and kicking times accurately
 - ❖ an electronic body protector to validate the power of the kicking impact

 - All the procedures will be precisely standardized and documented, for example:
 - ❖ distances used when testing different sized athletes
 - ❖ order in which different parts of the tests are executed

 - The measuring procedure will consist of single techniques as well as repetitions of the same techniques in order to determine:
 - ❖ athletes' event-specific speed
 - ❖ endurance characteristics
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Results and applications



- At the end of the project, we are expecting to have a powerful tool for testing our athletes
 - This tool allows following athletes' progress and identifying main areas they should focus in training
 - As an accurate real-time feedback system, it will also assist our athletes improving their reaction and kicking speed during trainings
 - The result of the project is planned to be integrated with physical and mental testing procedures, thus, finally resulting in a holistic test scheme for Finnish Taekwondo athletes
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About authors



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