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Difficulties and Solutions of Intelligent Fitness Assistance Device to Help Students with Weak Physical Fitness

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Difficulties and Solutions of Intelligent Fitness Assistance Device to Help Students with Weak Physical Fitness

Abstract

Intelligent fitness assistance device is an intelligent (electromechanical or other power) assistance device. According to the actual situation of students with weak physical fitness, the device gives intelligent help. In order to reduce the difficulty of fitness and improve the fitness efficiency, this study introduced the relevant theories and technologies in the field of intelligent electromechanical into students' fitness. We collected and sorted out corresponding theories and technologies from the field of physical fitness and the field of intelligent electromechanical assistance, sought the integration point of the two interdisciplinary disciplines, took electromechanical assistance as the main technical support, take students with weak physical fitness as the service object, and sorted out and innovated intelligent fitness assistance devices mainly under the guidance and help of experts in physical education and physics. Literature research method, interdisciplinary research method, simulation method (model method) and other methods were used to collect and sort out corresponding technologies based on students' fitness needs and innovation. Aiming at the problems of weak physical fitness and insufficient strength and endurance of students, an intelligent booster device was designed to scientifically improve the fitness level and effect. In the current sports environment of weak national physique, declining physique of students of all ages, and extensive restrictions on students' fitness, sports intelligent fitness assistance device is time-saving and efficient and has strong discipline and technology integration. However, there are integration difficulties between the two. The sports intelligent fitness assistance device promotes the subjective development of students' fitness in multi-dimensional and multi-way from the objective level of hardware, in terms of fitness willingness, operation feasibility Safety controllability and long-term guarantee, which has strong practical significance. The test design is a push up intelligent electromechanical booster device, which is trial manufactured by using electromechanical theory and mature ready-made machines (this time, due to limited funds and technical level, the variable frequency lifting motor that is easy to purchase and test is selected); Computer programming based on single chip microcomputer is used to realize the integration of computer knowledge and sports knowledge. Generally speaking, the concept of this study is basically realized, and the device basically runs normally. In the follow-up research and exploration, the scientific and technological level of research, design and manufacturing will be improved, and more scientific, efficient, and safe devices or equipment will be provided for students' fitness.

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Intelligent fitness assistance device is an intelligent (electromechanical or other power) assistance device. According to the actual situation of students with weak physical fitness, the device gives intelligent help. In order to reduce the difficulty of fitness and improve the fitness efficiency, this study introduced the relevant theories and technologies in the field of intelligent electromechanical into students' fitness. We collected and sorted out corresponding theories and technologies from the field of physical fitness and the field of intelligent electromechanical assistance, sought the integration point of the two interdisciplinary disciplines, took electromechanical assistance as the main technical support, take students with weak physical fitness as the service object, and sorted out and innovated intelligent fitness assistance devices mainly under the guidance and help of experts in physical education and physics. Literature research method, interdisciplinary research method, simulation method (model method) and other methods were used to collect and sort out corresponding technologies based on students' fitness needs and innovation. Aiming at the problems of weak physical fitness and insufficient strength and endurance of students, an intelligent booster device was designed to scientifically improve the fitness level and effect. In the current sports environment of weak national physique, declining physique of students of all ages, and extensive restrictions on students' fitness, sports intelligent fitness assistance device is time-saving and efficient and has strong discipline and technology integration. However, there are integration difficulties between the two. The sports intelligent fitness assistance device promotes the subjective development of students' fitness in multi-dimensional and multi-way from the objective level of hardware, in terms of fitness willingness, operation feasibility Safety controllability and long-term guarantee, which has strong practical significance. The test design is a push up intelligent electromechanical booster device, which is trial manufactured by using electromechanical theory and mature ready-made machines (this time, due to limited funds and technical level, the variable frequency lifting motor that is easy to purchase and test is selected); Computer programming based on single chip microcomputer is used to realize the integration of computer knowledge and sports knowledge. Generally speaking, the concept of this study is basically realized, and the device basically runs normally. In the follow-up research and exploration, the scientific and technological level of research, design and manufacturing will be improved, and more scientific, efficient, and safe devices or equipment will be provided for students' fitness.

Keywords: fitness device, computer programming, physical fitness