

Enhancing the Speedball racket effectiveness by redesign of the grip

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Abstract:

The game of speed ball is a game of ball and paddle games, and this game is an Egyptian innovation in terms of idea, patent, rules of play, device manufacture, ball and paddle. The activity of speed ball started in 1960. As this game depends on providing the player with the highest number of hits of hatred with the paddle at a time Less, so the ball racket is one of the main pillars in the game, through which the player can hit the ball in a row and quickly, and this requires an interactive racket design that integrates with the player's capabilities and improves the use side, which achieves the highest performance. The importance of this game as an Egyptian game, and through our duty as Egyptian designers, the research has studied and revealed weaknesses in the design of the current racket for speedball, as was identified the most important points for the game procedures and study of the conditions of the player, which helps us as designers to develop designs that increase the interaction between the player and the striker To improve use, which leads to improved performance, which confirms the goal of the research. The research presented two designs, one of which depends on the organic direction and the other on the engineering direction, and experiments and prototypes were made, leading to the work of a final model that experts from the players have tried, and EMG testing was done to confirm the percentage of electrical activity resulting from the muscles while using the rackets, which confirmed an agreement Players are experts on their choice of use, form and function, and it has been determined that the organic design is the best design, followed by the engineering and the current racket. The .research methodology was an experimental deduction method

Keywords:

- Speedball
- Solitary Sport
- Organic Grip
- Geometric Grip
- Enhancing effectiveness

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