

Virtual Board Breaking

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Abstract

Virtual Board Breaking provides a way of simulating breaking a wooden board with your fist. The force with which the fist “hits” the virtual board will be determined using a three-dimensional accelerometer mounted on a glove worn by the user. We will be determining the force thresholds for breaking the board through testing. The computer monitor will display an image of the board to be struck; once the system determines the force provided, the screen will display a broken board, an intact board, or a cracked board depending on the magnitude of the force provided. The game will also include sound effects for the appropriate results. The system will also graphically provide feedback to the user on the magnitude of the force provided.

Time permitting, we would also like to see this implemented for use with feet and head, which would give the game different modes of operation. In addition, we could add to the system by allowing the user to select the thickness of the board to create more difficult levels.