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**Ellic’s Exercise Class: An Active VR Game for Fitness**

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An Active VR Game for Fitness

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Abstract— In this work, we present an active VR game called “Ellic’s Exercise Class”. Ellic is a cartoonish elephant who will guide the players during the gameplay. This game is a set of seven mini exercise games, including blocking, goalkeeper, volleyball, archery, skeet, baseball, and shooter. Each game has three difficulty levels: beginner, professional, and master. Players can choose the best difficulty level for them based on their skills. Fig. 1 shows the screenshots for the gameplay of the blocking, volleyball, and archery. The goal of our game is to let players have some exercises while playing games and encourage them to gain the interest of exercising. All the moveable components in our game scene are implemented based on physical simulation. The players can interact with these objects by the movement of their bodies. The game requires the player to move full body to interact with sporting gameplay events.

Keywords— Exergaming; Virtual reality; Human-computer Interaction

Fig. 1 Screenshots of the gameview. (a) is the level selection menu, (b) is the ball blocking game, (c) is the volleyball game, and (d) is the archery game.

LINK:

This video shows the basic game concept and gameplay: https://youtu.be/_rkuolvL.Sy4