

2020

## Ellic's Exercise Class: An Active VR Game for Fitness

Lizhou Cao  
*Rochester Institute of Technology*

Yangzi Dong  
*Rochester Institute of Technology*

Chao Peng  
*Rochester Institute of Technology*

Follow this and additional works at: <https://scholarworks.rit.edu/frameless>

---

### Recommended Citation

Cao, Lizhou; Dong, Yangzi; and Peng, Chao (2020) "Ellic's Exercise Class: An Active VR Game for Fitness," *Frameless*: Vol. 2 : Iss. 1 , Article 16.

Available at: <https://scholarworks.rit.edu/frameless/vol2/iss1/16>

This Demos is brought to you for free and open access by RIT Scholar Works. It has been accepted for inclusion in Frameless by an authorized editor of RIT Scholar Works. For more information, please contact [ritscholarworks@rit.edu](mailto:ritscholarworks@rit.edu).

## Ellic's Exercise Class: An Active VR Game for Fitness

Lizhou Cao

Rochester Institute of Technology

Yangzi Dong

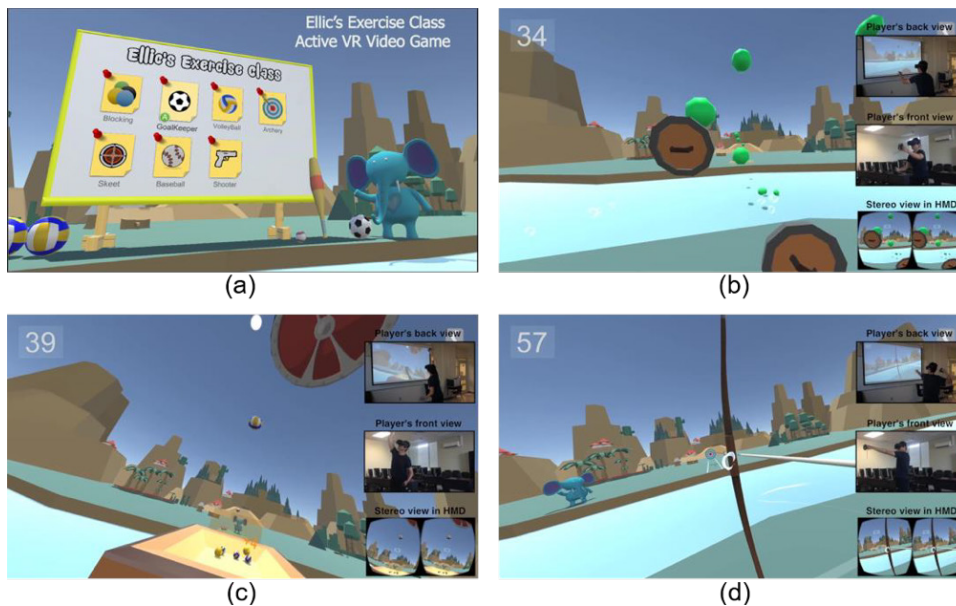
Rochester Institute of Technology

Chao Peng

Rochester Institute of Technology

*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. 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/\\_rkuoIvLSy4](https://youtu.be/_rkuoIvLSy4)