

Research Proposal

Title: Video Game Development - Brick Breaker

Author: Rui Chen, Shaofu Wu
Bingyao Shi, Dajing Xu

Supervisor: Professor Stephen Edwards

Background

Brick Breaker is the game in which there is a ball bouncing and hitting the bricks above. During the game, one should estimate the falling point of the bouncing ball and quickly control a movable bar to catch it. And then the ball bounces up again and hits on some brick and comes down, one catches it and so forth.

The original version of the game was called Breakout and was developed in 1972 by Atari Inc. The Blackberry version of the game was very popular and many famous CEOs and Business executives have admitted to having a Brick Breaker addiction[1].

Aim

Our aim is to develop a version of Brick Breaker based on DE1-SoC board. Player should be able to control the position of a movable bar using keyboard. Player can also save there game progress for next play.

Method

This design should combine hardware with software design. The images should be stored in memory section of DE1-SoC board and continuously shown on the screen. Softwares are designed such to align the whole game and enable the players to save their game progress for next time play.

References

- [1] <https://www.quora.com/What-is-the-name-of-the-game-in-which-there-is-a-movable-bar-on-which-a-ball-bounces-and-hits-the-bricks-above-it>