**FPGA Final Project**

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**Design description**In this game, I will design a game to destroy some brick by using bouncing ball from the bottom. The design of this game is based on the game “Brick Breaker”. In this game will feature three stage: Easy, Medium, and Hard. Each stage will have difficulty varied by the number of blocks, existence of moving blocks, and existence of indestructible object.

**Game spec:**- Bricks will be divided into 3 categories: red, yellow, blue. Blue bricks required 3 knocks to be destroyed. Yellow bricks required 2 knocks to be destroyed. Red bricks required 1 knocks to be destroyed. After ball interact with the brick, every bricks will change color to corresponding color which represent number left needed to be knocked before destroyed.  
- The number of bricks successfully destroyed will be displayed in the screen.  
- The difficulties level currently playing will also be displayed on screen.  
- “right” and “left” arrow on keyboard controls the movement.  
- Timer to specify how long have you played.  
- Ball will bounce of wall, indestructible objects, the block, and the board.  
- Game over will be displayed if the parts of the ball fall of the bottom of the screen.  
- Congratulation message for winner.

