David Wang, Dai Hong Zheng

Dr. Jamieson

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Project Proposal

We initially had multiple ideas such as building a game of pong, minesweeper, block breaker, or snake. However, we did not know the limitations of Quartus and FPGA boards so we decided to go with a simpler proposal. We decided that our proposal for this project is building a game of snake. We plan of building a classic game of snake but intend to add more features if we have extra time.

Since we are building a classic game of snake, the rules will most likely be similar to any other game of snake. These rules include but are not limited to eating and getting longer, dying if it goes out of the screen, and dying if it runs into itself. If we finish coding all of these rules early, we might modify/add more features into it. These features will most likely be adding a health bar/timer so that if the snake doesn't eat before the timer runs out, it will die. Another feature will be adding a multiplayer option and it will consist of racing to see who gets a certain amount of food first.

We plan on creating this project in Verilog so that if there are mistakes, it will hopefully be easier to identify and fix. We will implement controls using some sort of external controller to control the movements of the snake. Overall, the first step is creating a classic game of snake and if there is time, we will implement extra features.

We plan on meeting up on Tuesdays and on Weekends to work on this project.

Rough Plan	
1st	Figure out how to display an image from the de2 board to a monitor
2nd	Create an object 1 to be displayed on the monitor and make it move inside the screen using the 4 buttons on the de2 board. Create object 2 that will randomly appear on the screen.
3rd	Set up parameters: • Increase size of object 1 • Game over when object 1 touches the screen edge • Game over when object 1 touches itself
4th	Research/Add external controller
5th	Final Testing
6th	Additional features (Optional)