

Derek Garcia

ECE 153B

Tuesdays 7:00pm-9:50pm

Project Proposal: LED Snake Game

Overview:

I want to create a snake game on a LED matrix display. The user will have to use a Wii Nun chuck controller to control where the snake goes in different directions. The goal of the game is to eat as much lights at different locations without running into itself. The snake will grow as more snacks are eaten on the LED board.

Peripherals:

- 1) 8x8 RGB LED Matrix or 16x16 RGB LED Matrix
- 2) Wii Nun chuck

Serial Interface Protocols: UART / I2C

Responsibility List: Solo Project

Software:

Use the STM to control and initialize the LED, controller and the game. Nun chuck will be programmed to control the snake and to start the game on the LED matrix. The snacks will appear one at a time and will be placed in a location the snake is not taking up on the matrix. The snake will also be represented in the LED. Interrupts will be needed to indicate the end of game win or lose and to change the lights on the LED. Interrupt will also trigger when a snack is eaten to make the snake bigger as well.

Website: ucsbece153bsnakegame.weebly.com