Name: Tra Yen Nhu Phan

Course: ECE 387

**WRITTEN PROPOSAL FOR FINAL INDIVIDUAL PROJECT**

**SNAKE GAME**

**OVERVIEW**

In this project, I will build a snake game. To control the snake, instead of having buttons or a joystick, the players will tilt the board to change the snake direction.

**COMPONENTS**

Basically, I will use an Arduino as a microcontroller, an OLED as the screen display, and an accelerometer to detect the tilting direction.

**FEATURES**

Basic figures of the game are to allow the snake moving around the screen to get food. The snake’s length will grow as it eats more food. The game is over when the snake touches it own tail. The food is automatically generated when one is eaten.

If I have enough time, one additional figure will be to create different modes of the game (the snakes move faster or obstacles are added in harder mode). I can add pause, resume, and restart function to the game.