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ECE 387

8 April 2016

ECE 387 Final Individual Project Proposal

This project is built upon my Midterm project, wherein I used a haptic motor driver to create different effects on a vibration motor based on the input from a flex sensor.

For my Final Individual project, I hope to create a memory game, called ‘Buzzer,’ using haptic feedback. In this game, I will use the haptic motor driver to create different effects on the vibration motor. There are three effects I will create with the haptic motor driver: a click, a steady buzz, and a burst of buzzes. A sequence of outputs will be created, where each output can be any one of the three effects, and it will then sent to the vibration motor. The vibration motor will be held in the hand of the user, and they will be able to clearly feel the outputted effects. It is the user’s task to remember the sequence of outputs.

In order to win the game, the user will have to correctly input the sequence they felt from the vibration motor. Push buttons will be used for inputting—there will be one button for the click effect, one for the steady buzz and one for the burst. The user will have to press the buttons in the correct order in order to win.

There will be 7 levels in the game. In the first level, the output will be a sequence of 4. The output for the second level will be a sequence of 5, and so on until the tenth level where the output will be a sequence of 10. In order to pass a level, the user must correctly input the outputted sequence five times in a row. The game is won when the user can get through all 7 levels without making a mistake.