Jason Loo

Microcontrollers

Class Activity 10

**Designing Test 1:**

Let’s see if we can get any data to be sent from the SD card. This will require us to insert the SD card into our breadboard then attach the oscilloscope to the wires that connects it to Port Q. After attaching the wire, we should be able to open up the Logic application and test what happens when we send data across, the oscilloscope should be able to detect it.

**Designing Test 2:**

After we verify test 1, we can check to see if the code for Lab 5 is correct by implementing it the same way. Hopefully the wiring is correct and will be able to detect if there are any changes.

**Gathering Data 1:**

What was strange is after setting up the wires and the oscilloscope, it seems as it the oscilloscope cannot detect anything is changing, even after clicking the restart. The wiring seems like it is correct so it is back to the setup of the application, however it runs well, maybe there is a setting I was missing and was not shown in the video.

Since I was not able to get the oscilloscope working, will write out the report as if it was working properly and will consult others in the class for help with possibly wiring.

**Gathering Data 2:**

Ideally, after building and debugging our final files for lab 5, the oscilloscope should be bale to pick up the data changes on edges of the clock.

**Analyze and interpret results 1:**

This would be followed up with double checking if what we sent through the SD card is being read properly. The wave forms would tell us what was being sent and received by the SD card, then depending on what we sent through and knowing whether edge or level sensitive, we would then proceed to confirm that the wiring is correct

**Analysis and interpret results 2:**

Here we would be sending through our data from the functions we wrote and can step through to make sure that the data is being transmitted to the proper registers. This way, we know the proper ports and pins have been used, then checking the oscilloscope, we can determine that the RX SSI and TX SSI have been properly set up

**Draw Conclusions 1:**

The data has been changing properly and the oscilloscope helps confirm that the set up is valid

**Draw Conclusion 2:**

Similar to above, the oscilloscope has been helpful to confirm that the TX and RX bytes have been properly coded and that the lab 5 is working properly.