Course: CSC258F

Professor: Steve Engels

Experimenter: Yuhao Yang

Student ID: 1005808057

Lab7

Pre-Lab Report

Part1:

1. Create a 32 \* 4 RAM module in Logisim.

Diagram, schematic

Description automatically generated

2. What happens if both signals are off when the clock goes high? What happens when both signals are on?

***Diagram

Description automatically generatedIf both signals are off when the clock goes high, and then there is nothing will happen. In another case, if both signals are on when the clock goes high, then the DataIn will be written into RAM at the correct address and the output will be displayed as well.***

3. Draw a schematic.

4. Test the circuit.

Diagram

Description automatically generated

Diagram

Description automatically generated

Diagram

Description automatically generated

A screenshot of a computer

Description automatically generated

Part2:

1. What happens if you don’t turn Enable off before updating X and Y?

***Some extra pixel will be drawn on the RGB board***.

2. What happens if you turn Enable off before 256 clock cycles have passed?

***The square you want to draw will not be complete, which means the rest of pixels will not be drawn on your RGB board.***

3. What happens if you turn Reset on while Enable is on?

***All pixels are you have drawn will be erased***

Diagram

Description automatically generated

4. Draw the schematic.

All other parts will be demonstrated in meeting. The circuit is like the blow.

Diagram

Description automatically generatedGraphical user interface, application

Description automatically generatedDiagram, schematic

Description automatically generated