



SIMPLE CALCULATOR

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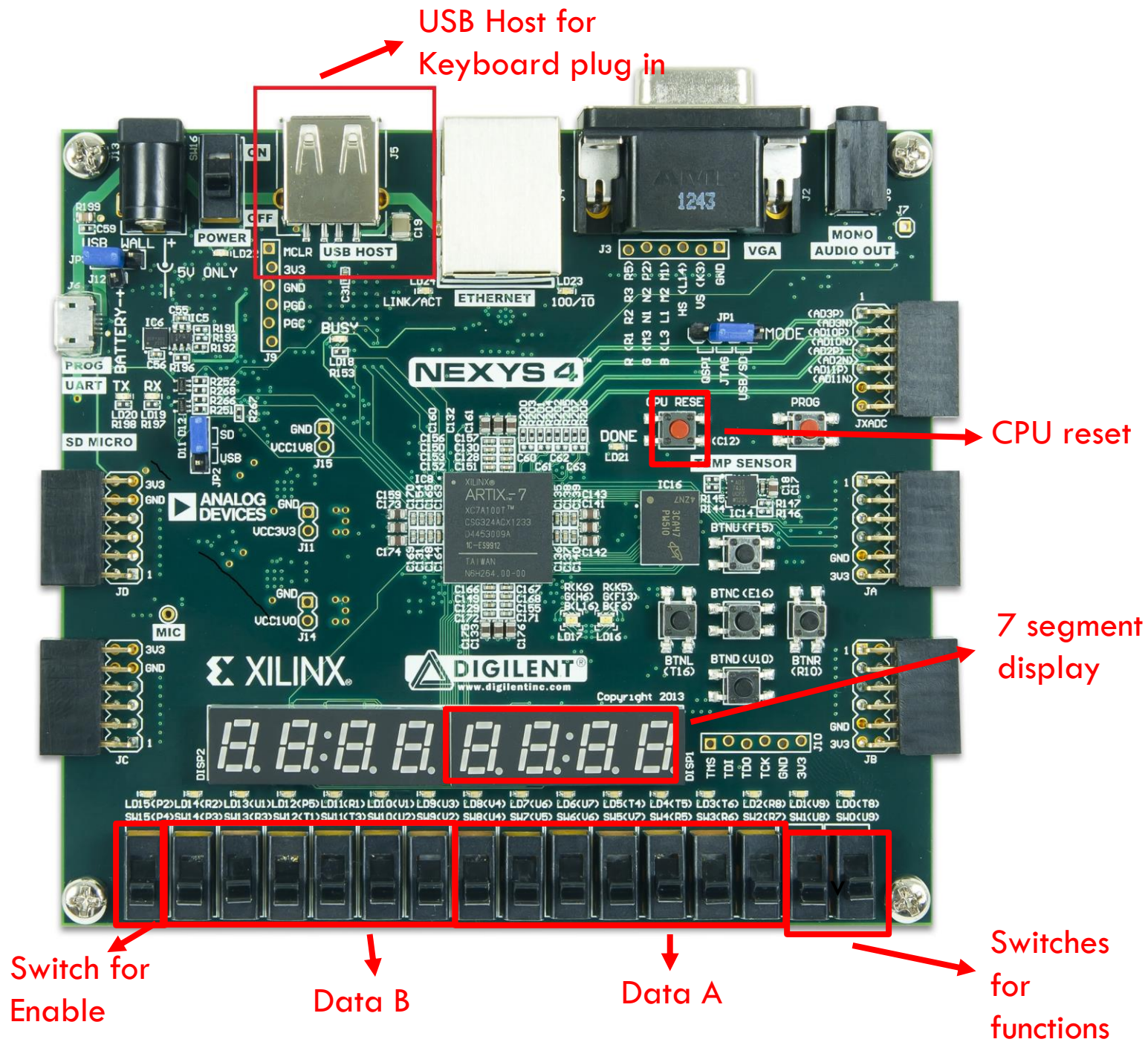
INTRODUCTION

- Interactive Signed Calculator
 - Computes mathematical operations (Addition, Subtraction, Multiplication, and Division) in signed hexadecimal form
- Inputs:
 - Keyboard interface
 - Switches – For functions and one for enable
 - Button for resetn
- Outputs
 - 7-Segment Display

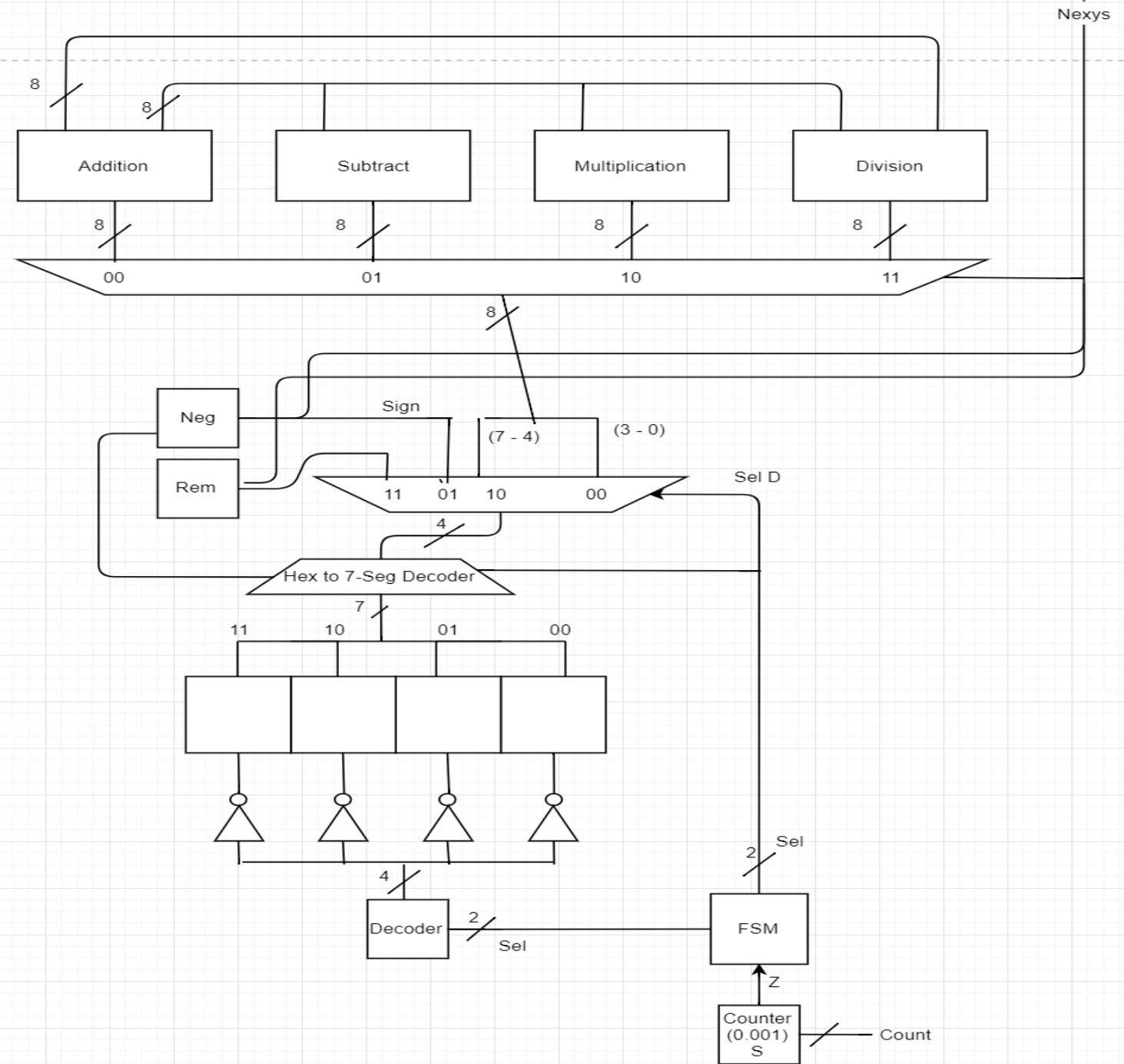
PURPOSE

- Construct a digital calculator that calculates hexadecimal inputs from keyboard
- Utilizes switches for choice of function (addition, subtraction, multiplication, and division) and an enable.
- Displays a signed hexadecimal output onto the 7-segment display
- Button used as resetn to clear input/output

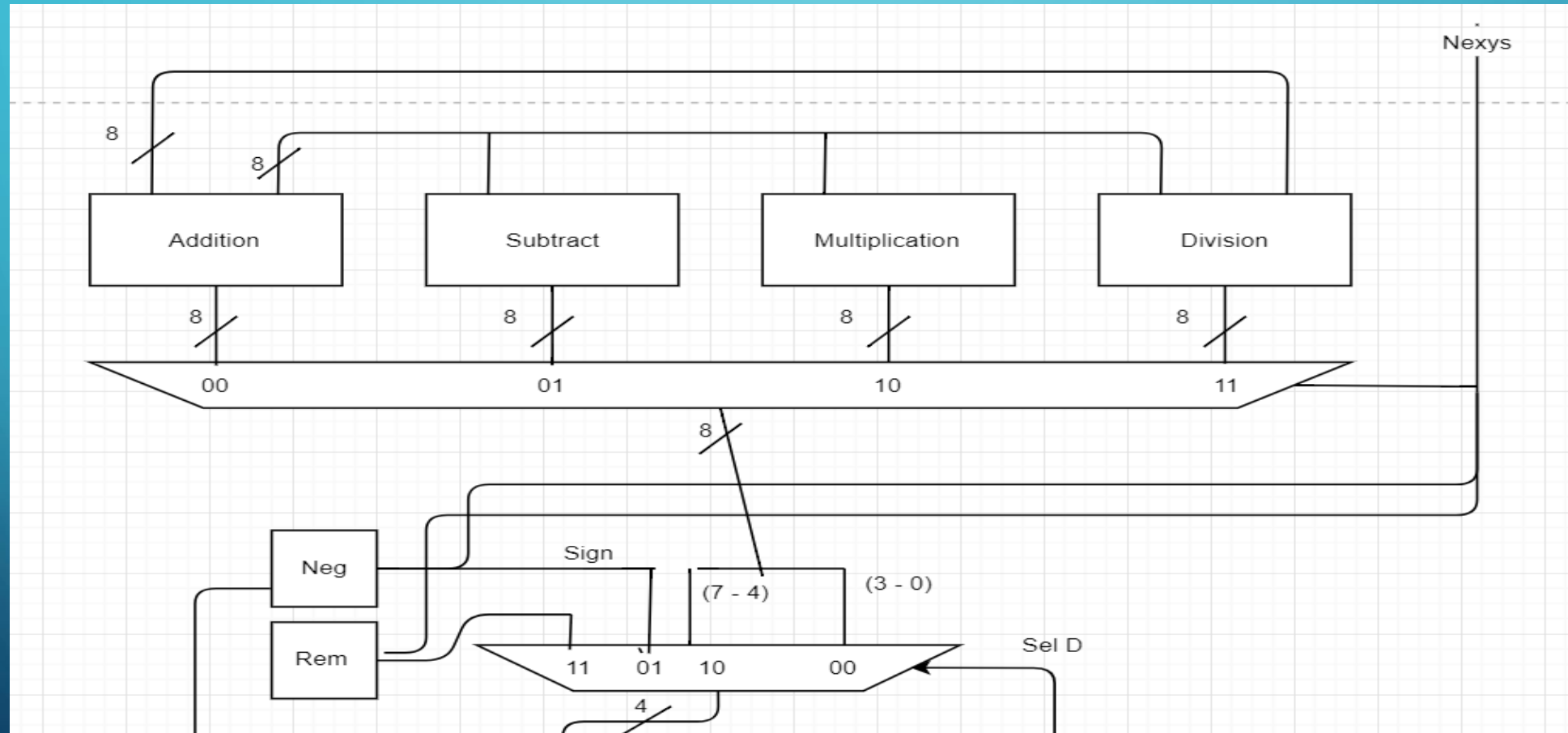
BOARD LAYOUT



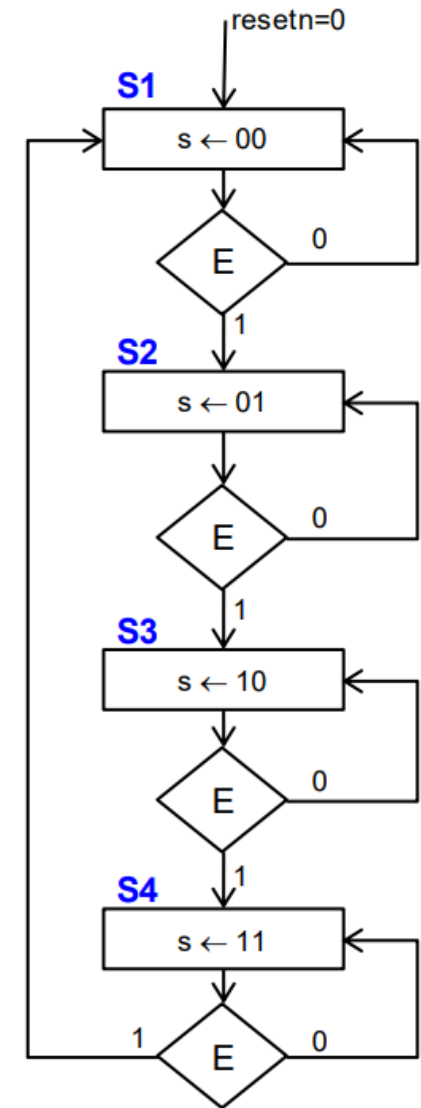
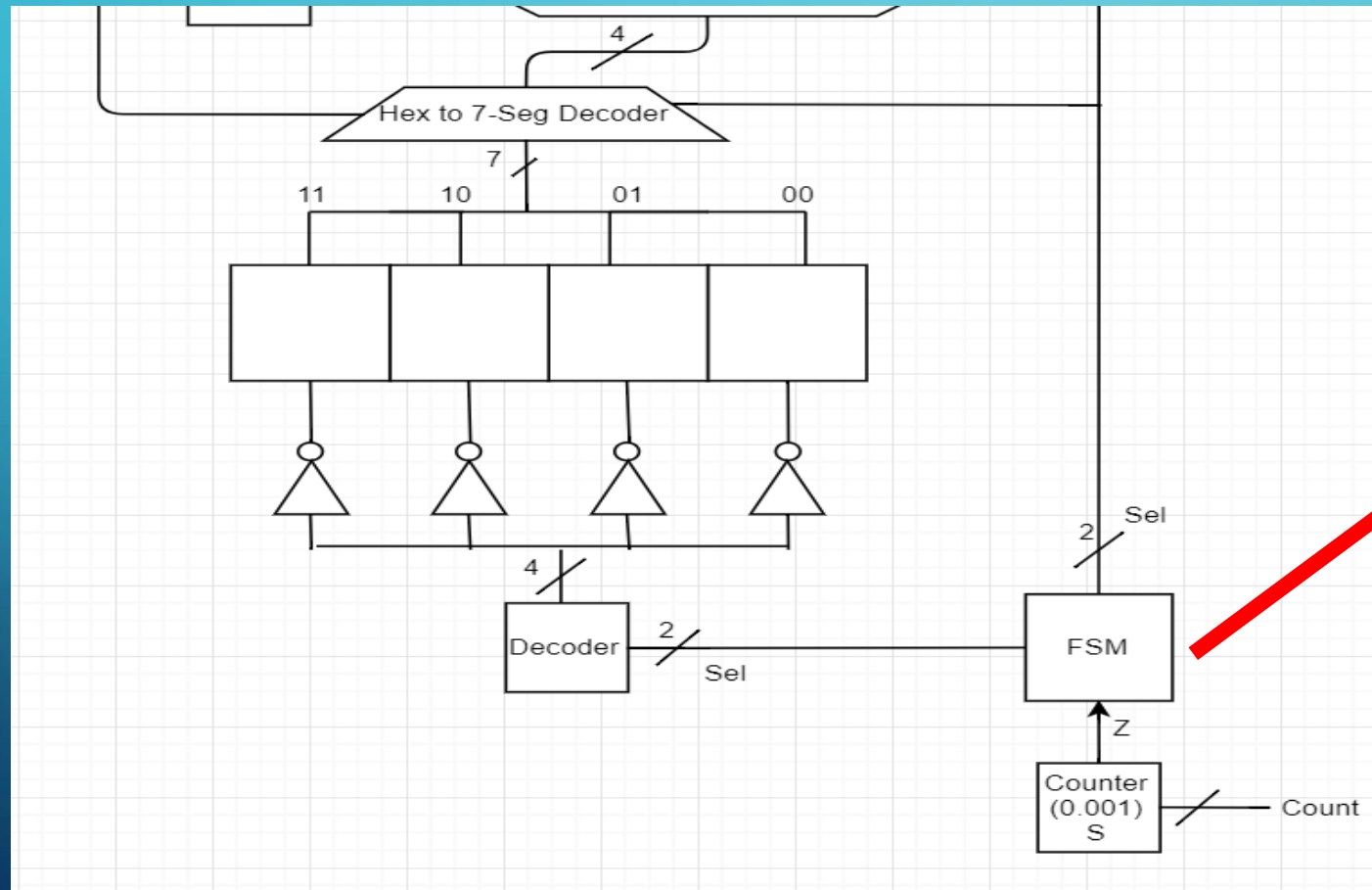
BLOCK DESIGN



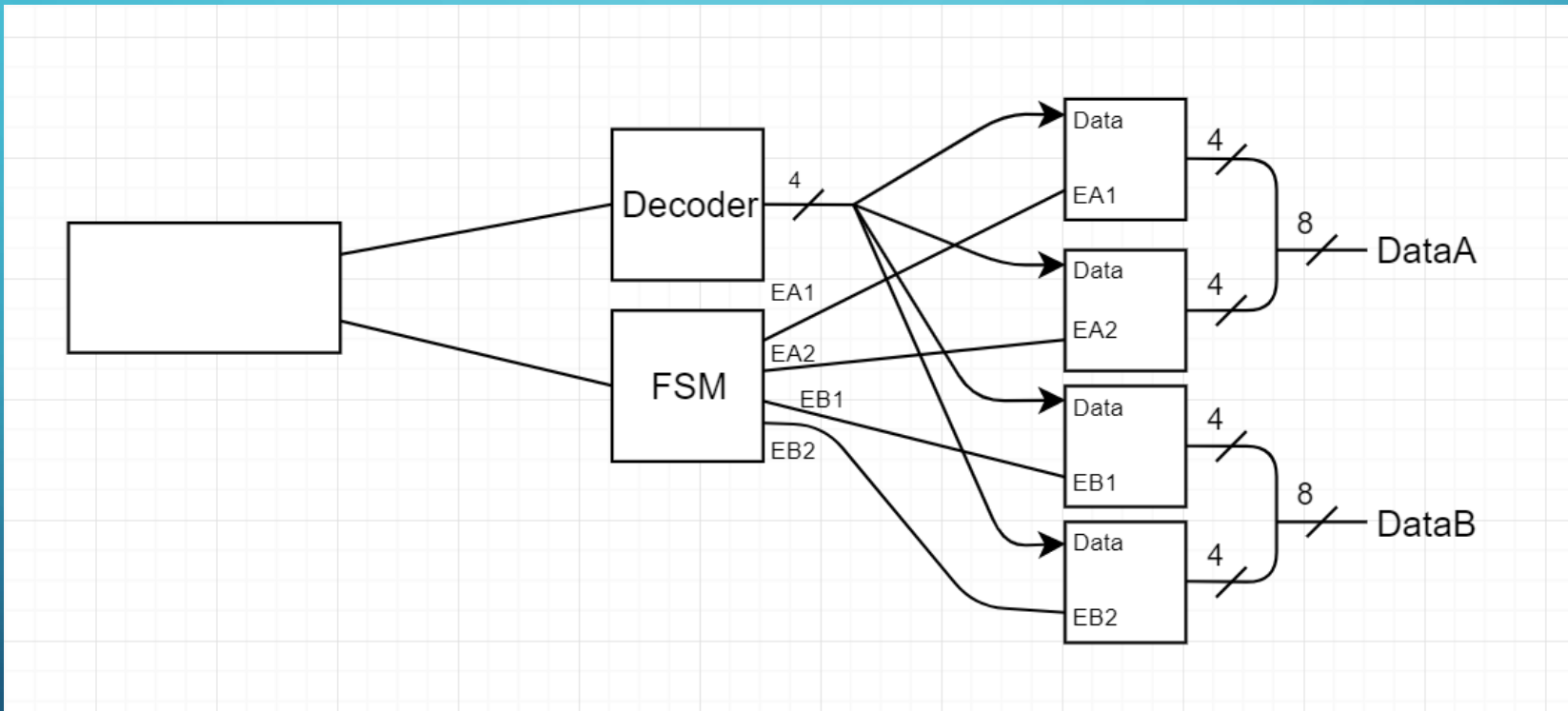
FIRST HALF OF DESIGN



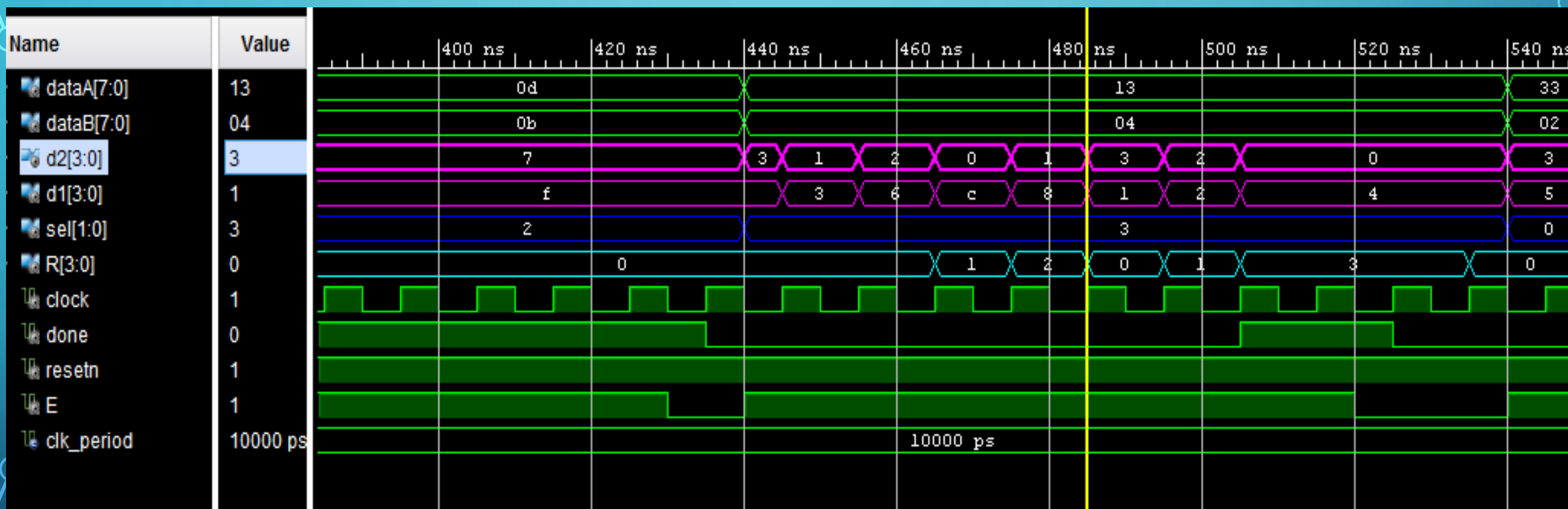
SECOND HALF OF DESIGN



KEYBOARD'S DESIGN



TIMING SIMULATION



CURRENT ISSUES

- Was not able to incorporate the keyboard due to on going troubleshooting.
- Had multiple files/components named similarly which caused errors in the project.

IMPROVEMENTS

- Larger inputs for larger calculations
- Create a user interface on a VGA Display
- Incorporate a keyboard
- Add more functions such as exponentials and square roots.

The background is a blue gradient with abstract white lines and circles in the corners, resembling a circuit or network diagram. The text "TIME FOR PRESENTATION!" is centered in the upper half of the image.

TIME FOR PRESENTATION!