Lecture 19

Lab 5

- Part 1: relatively straightforward
- Part 2: rate divider
  - Display value changes when counter counts to a specific number
  - Only when enable is set to 1
- Part 3: Morse Code Machine
  - Note when to shift

Simple Processor

- Logic Circuit
  - Sequential and Combinational logic controlled by a FSM
  - n bit general purpose register
  - Has an ALU
  - External Interface (e.g. memory, I/O devices, address, control, data)
    #### Simplified Processor Example
- 8 bit bus, 4 8 bit registers, tristate buffer (used to disconnect input from output)
- registers hold value to be used in computation or they hold computation results
- Control FSM: produces all logic (inputs w and a function, outputs the inputs and outputs for registers, exit status, and all other outputs)