

Topics for the rest of the week:

- ~~Instruction timing~~
- Addressing Mode Review
- Memory
 - types in general (RAM, ROM, EPROM, EEPROM, FLASH)
 - types within the HCS12C (RAM, FLASH)
 - memory map (and ports)
 - adding external memory and ports (to the D series devices)
- Expanding the use of a port (how we're using Port T to control several different devices)
- Electrical characteristics (power, voltages, currents, operating frequencies).

Hour Exam #2: Wednesday!!!

- Seven Segment Displays
- Switches
- Interrupts
- Timers
- Instruction Timing

Addressing Mode Review:

What does 'addressing mode' refer to? _____

What are the various types? (see Chapter 3 in S12CPU or Chapter 5 in CD text)

- Inherent _____
- Immediate _____
- Direct /Extended _____
- Indexed _____
- indexed -Indirect _____
- relative _____
- others...

Think about these versions (different 'addressing modes') of the CLR instruction; determine what changes in the data area:

```

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    ORG $800
; Insert here your data definition. For demonstration, temp_byte is used.
temp_byte  ds.b 1
           dc.b $34,$56,$78,$9A,$08,$01

; code section
    ORG ROMStart
Entry:
    LDS #$900
    CLI           ; enable interrupt
    ....
AddrModeStuff:
    LDAA #0
    LDAB #3
    LDX $800
    LDX #$800

    CLR $802                ;extended mode

    CLR 4,X                 ;indexed mode
    CLR B,X                ;(register) indexed

    CLR [5,X]              ;indexed indirect mode ???
    
```

<i>Location</i>	<i>Data</i>
800	
801	

Done: BRA Done

Run it in simulation and examine it with the Trace component.