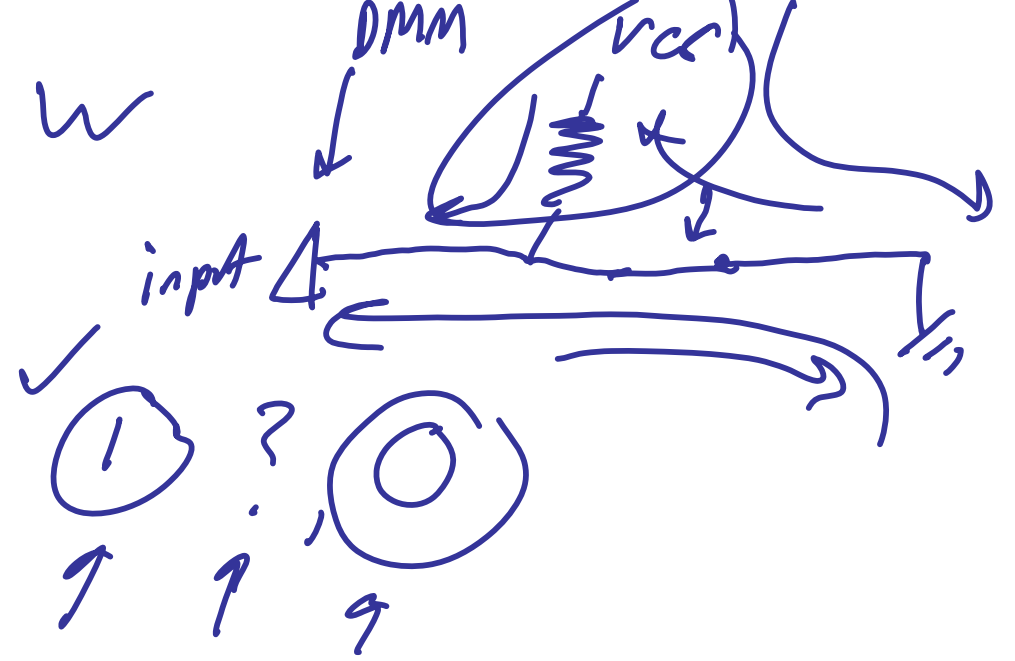


Review



CPEG 222, moving beyond CPEG 202

Digital I/O -vs- Binary I/O

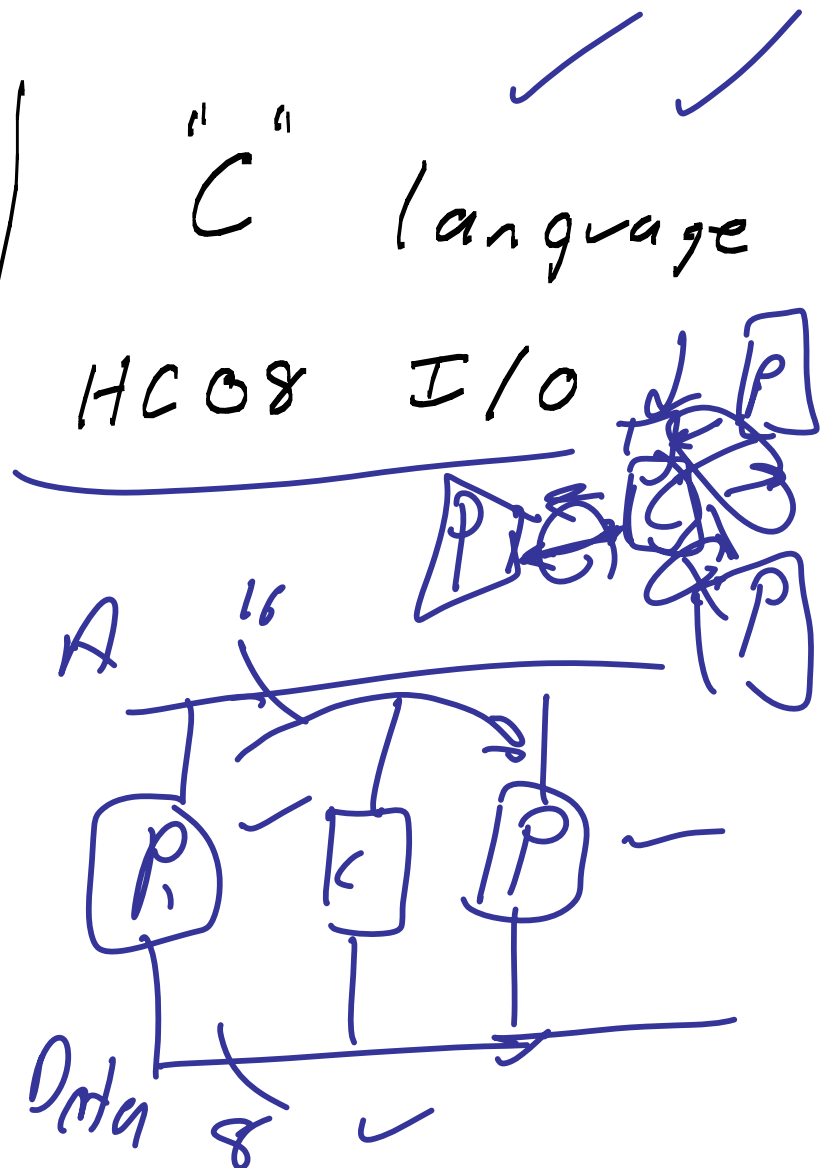
Software -vs- Hardware

Project 0 \swarrow

Demo board Switches, LEDs (Ports) \swarrow

Binary I/O

- ✓ HC08 Registers
- ✓ Assembly language
- ✓ HC08 Arch. —
- ✓ Code writer IDE
- ✓ Memory Model
- ✓ Trouble Shooting!



PROJECT 1:

STRUCTURE

INTRODUCTION

Project 1 Definition
BRING UP DESIGN
METHODOLOGY
Are all features
understood?

HARDWARE

Discuss HW needs
How is that HW gonna
be connected
Alternative solutions:
MUXing a port
Using more control signals
Preliminary HW description
(perhaps very close to final)

MORE HARDWARE

Detailed HW description
DEVISING AN IMPLEMEN-
TATION STRATEGY
With all HW understood
describe the operation of
the project, to start esta-
blishing the SW link

SOFTWARE

look-up tables as one of the
identified key pieces
BUILD IT
ADDRESS IT

MORE SOFTWARE

Design SW always
Keeping in mind the
IMPLEMENTATION STRATEGY
Build macro flow
Discuss contents of
micro flows
WRITE DOWN THE
IMPLEMENTATION STRATEGY
WRITE SW IN ACCOR-
DANCE TO IMPLEMEN-
TATION STRATEGY

TROUBLE SHOOTING
EXERCISE

PROJECT 2:

STRUCTURE

INTRODUCTION

Project 2 Definition
BRING UP DESIGN
METHODOLOGY
Block diagram

HARDWARE

Discuss HW needs
How is that HW gonna
be connected
Specs on the keypad;
Detail on keypad wiring
How is the keypad connected
to the MC
Using OR & AND gates

MORE HARDWARE

Detailed HW description
USING THE WIRING DIAGRAM
describe how the project
will operate
→ HARDWARE IMPLEMEN
TATION STRATEGY

SOFTWARE

INTERRUPTS & RESETS
→ learn all about INT types,
ISR
"Generic class on INTERRUPTS"

MORE SOFTWARE

Build macro flow
Discuss contents of
micro flows
INITIALIZATION & INT.SETUP:
IRQSC
DEBOUNCING ✓

IMPLEMENTATION & TROUBLESHOOTING

Implementation strategy
Present TS cases & possible
causes & solutions
MIDTERM REVIEW

WHAT DO WE NEED FOR THE MIDTERM?

- ID ✓
- No Notes, electronics
- Keep your paper covered & eyes on your own paper ✓

