Pic you have to set 1 b/c LED #3 stop
at one instead of 0

Window → Debugging → Variable

Case 12 : LED code

delay_ms() [Millisecond]

1 MHz CPU

262.14 ms / f_cpu

f_cpu is how fast i.e. 4MHz

262.M / 4 = 65.535 ms

delay_us() microsecond

AVR Chips require

-O1 or O3

F_CPU

4MHz = 4000 000 UL ← unsigned long

Pic 24 ← Clock number

FCY _____

No reset stopwatch

- Interrupt service Routine.
  - used to generate the pwm.

AVR requires 4 variables to time

OCR1A

TCCR1A = 0;

TCCR1B |= 1 << WGM12 | 1 << CS12

TIMSK |= 1 << OCIE1A

Also require a bool if the system interrupt is being fired

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① Cheat sheet (1 page)

- Homework Questions
- Calculations
- Coding
- Design
- Concepts

} Pictures (Diagrams)

No calculator required

Leave extra full answer

$t = 0.0001 = .01\%$

Tuesday

- Definition for embedded system

Slide #

(4)

(6)

(9)

(11)

- 3 characteristics
  ↓
  Into design

- Calculating period

- Challenges in development
  - what they refer to

- System stack

- Developmental systems

- Software development
  process & tools
  cross compiler
  development
  debugging

- Different levels of
  programming languages

- What is cross compiler / compilation
  GCC [The options]

- PIC and AVR Libraries
  peripheral & others

* X No JTAG *
  No Hardware team

Lecture 3 slide
- Software team (every step)
- Might get schematics
- CPU Model (10 Pin's)
- How to do software reset code
- CPU Clock
  - Clock selection
  - Diagram formula
  - Requirement on clock

  } Need to find value to put in register.
  ie. Register has 10 or 1

- Lecture 04
  - Von neuman vs Harvard

- IO Architecture

  Port IO vs Memory IO

- Memory structure picture (what's in the memory)

- Output (Atmega 128)

  ↳ writing code for IO pins

  (example code in homework)

- Delay function → Create code for the amount of seconds

- Interrupt reference code [Missing parts to complete code]

Prog1

- Assembly vs C
- Register structure
  - key registers
  - Data memory layout
  - Code Memory layout

} Assembly

Prog 2

- Variables, operators, macros, etc.

  Explicit int type [Slides 1-19]

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