## **Computer Science**

# Spring 2025: CSCI 181RT Real-Time Systems in the Real World

#### Lab 2

Wednesday, February 5, 2025 Edmunds Hall 105 1:15 PM - 4:00 PM

Professor Jennifer DesCombes



#### **Lab 2 Goals - Primary**

- Complete Download of Tools
  - Can Use Any Resources Available
  - Can Use Each Other as Resource (Collaboration)
- Establish Communications from Evaluation Board to Computer
- Compile and Load Sample Program (provided)
- Using Sample Program as a Framework, Write, Compile and Execute "Hello World" Program
  - Display in Terminal Window



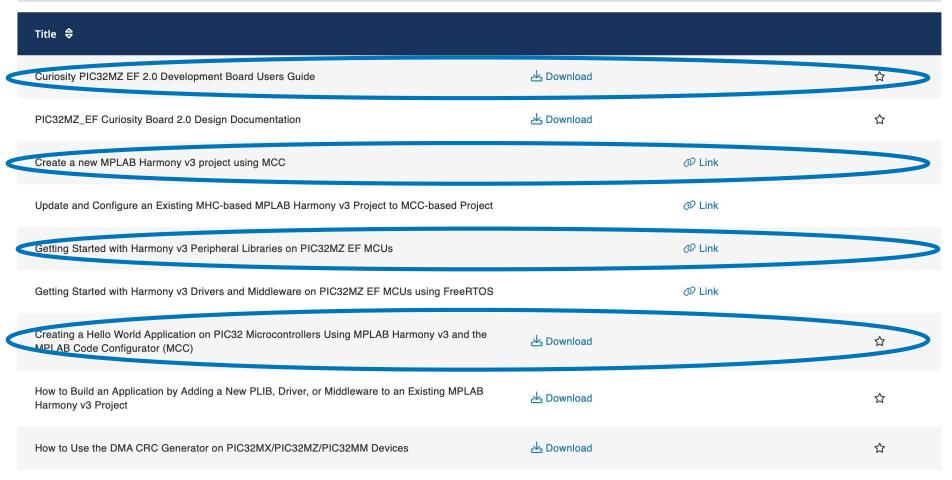
### Lab 2 Goals - Secondary

- Add Character Input from Terminal
  - 'H' or 'h' Redisplay "Hello World"
    - Include CR and LF?
  - Character Input Without Carriage Return (Enter Key)
- Use Character Input from Terminal to Turn on LEDs
- Use Character Output to Terminal Indicate State of Buttons



#### **Assignment - Lab Preparation**

#### **Documentation**



NOTE: Date reflects original presentation date. Tuesday, February 4, 2025



#### Lab 2 Goals - Secondary

PIC32MZ Embedded Connectivity with FP Unit (EF) Family

https://ww1.microchip.com/downloads/aemDocuments/documents/MCU32/ ProductDocuments/DataSheets/PIC32MZ-Embedded-Connectivity-with-Floating-Point-Unit-Family-Data-Sheet-DS60001320H.pdf