Fundamentals of Embedded Systems Design
&
Programming

U.C. Irvine Division of Continuing Education

EECS X497.32

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Programming Assignment: Temperature Sensor Using ADC and EEPROM

Programming Assignment:
Temperature Sensor Using ADC and EEPROM

main code:

- The skeleton code displays is functioning as assignment #6 as follows:

1. Set Desired temperature using switch switch1 to increase Desired temperature, and switch2 to decrease Desired temperature
2. If current temperature is equal to desired temperature, both LED0 and LED1 are off
3. If current temperature is above desired temperature, turn LED0 on, LED1 off
4. If current temperature is below desired temperature, turn LED0 off, LED1 on

- **You assignment is:**
  Save the desired temperature in the EEPROM.
  So when ever there is a power loss, the desired temperature is preserved, and on next power on, it should read the data from EEPROM.
- nvm_eeprom_read_byte() and nvm_eeprom_write_byte() functions available in the nvm.h and nvm.c files in the **src->ASF-> xmega->drivers-> nvm** folder