

Follow the submission guideline to be awarded points for this Assignment.

Task 01: a) Continuously display the temperature of the device (internal temperature sensor) on the terminal using a timer interrupt every 0.5 secs, b) Using PF4 button interrupt toggle all (RGB) LEDs. (PS: your program will have two interrupts)

Task 02: Continue with Task 01, develop an user interface using UART to perform the following:

Enter the cmd: R: Red LED, G: Green LED, B: Blue LED, T: Temperature; S: status of the LEDs: Based on the command (cmd) the program should turn ON Red LED when R is entered in the terminal, etc. Command of 'r' will turn off the Red LED. 'T' reads Temperature in Centigrade, and 't' read Temperature in Fahrenheit. 'S' read status of the RGB LEDs.

Task 03: Continue with Task 02, implement the temperature-memory transfer and memory-UART transfer using uDMA.

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Submit the following for all Labs:

1. In the document, for each task submit the modified or included code (only) with highlights and justifications of the modifications. Also include the comments.
2. Create a private Github repository with a random name (no CPE/403, Lastname, Firstname). Place all labs under the root folder TIVAC, sub-folder named Assignment1, with one document and one video link file for each lab, place modified c files named as asng_taskxx.c.
3. If multiple c files or other libraries are used, create a folder asng1_t01 and place these files inside the folder.
4. The folder should have a) Word document (see template), b) source code file(s) with startup_ccs.c and other include files, c) text file with youtube video links (see template).
5. Submit the doc file in canvas before the due date. The root folder of the github assignment directory should have the documentation and the text file with youtube video links.
6. Organize your youtube videos as playlist under the name "cpe403". The playlist should have the video sequence arranged as submission or due dates.
- 7.