

**Subject Name: EOS / Embedded Linux**

Note : if you have specific doubts, after reading the required documents and references, you can write to [babu\\_krishnamurthy@yahoo.com](mailto:babu_krishnamurthy@yahoo.com)

**Lab-Assignment 1:**

1. First, as mentioned, in `assignment1_userleds.txt`, test the user leds on the board, as per the SRM and the `assignment1_userleds.txt` files - also, refer to lecture and lab notes, for more details – test the standard features of the user-leds, by manipulating their trigger attribute - for instance, setting the trigger to none, they can control the led, as per their requirement – commands are mentioned, in the above txt file - there are other \*.txt files provided, for more details – follow the lecture notes
2. next, based on `assignment1_userleds.txt` and `assignment2_userleds.txt`, disable the `led0|led1|led2` on-board, from the current parent node and add them to a new, parent node, as mentioned, in the \*.txt and lectures - in addition, modify the new, parent node to manage `led0|led1|led2` - rebuild the dtb , reload the kernel and the dtb – test and verify the changes , as mentioned, in the above \*.txt documents – also, you use the `led_ctrl.c`, for writing a custom driver – this custom driver must be modified, as per requirements of `led0|led1|led2` – follow the `led_ctrl.c` and lecture/lab notes
3. next, based on `assignment1_userleds.txt` and `assignment2_userleds.txt`, add a new, parent node, as mentioned, in the \*.txt and lectures - in addition, modify the new, parent node to manage `ext led0 |ext led1 | ext led2` - rebuild the dtb , reload the kernel and the dtb – test and verify the changes , as mentioned, in the above \*.txt documents – also, you use the `led_ctrl.c`, for writing a custom driver – this custom driver must be modified, as per requirements of `ext led0|ext led1|ext led2` – follow the `led_ctrl.c` and lecture/lab notes – in this case, you also need to modify the pin control children nodes, for gpios of external leds – follow the above documentation | lecture notes | lab notes