

Assignment SKEU2012 Electronics Semester: 2014/15 - 02

NAME: 1 _____
2 _____
3 _____
4 _____

* Submit your group names on 27th April 2015

* Demonstration and marking will be on 18th June 2015 (Five weeks duration).

TITLE:

LED Running lights

INSTRUCTION:

1. To design and develop at least 8 LEDs circuit that will display LED running with several features.
2. Example of features are as follow (not limited to)
 - a. **1 x Blinking pattern [Standard]**
 - b. Multiple Blinking pattern
 - c. Speed
 - d. Changes of brightness
 - e. Digital input
 - f. Analog input
 - g. Serial
 - h. wireless
 - i. others
3. You can decide what electronics components to be used to achieve this task such as
 - a. 555 timer.
 - b. Any microcontroller such as Arduino Uno, PIC, ARM, etc.
 - c. Or any other electronics components.

(Tips: search example via online with keywords led blinking, 555 timer, Arduino, microcontroller, etc.)

ASSESSMENT GUIDELINE:

Your group has to submit a report prior to the demonstration. Your report should **not be more than 2 pages** and consists of Introduction, Theory, Circuit, Results and Conclusion.

Finally, your group has to present and demonstrate the system in 8 minutes (4 minutes presentation + 4 minutes Q&A). The presentation is tentatively scheduled on *18th June 2015*. Table 1 shows the marks allocation for Report, Presentation and Demonstration.

Table 1: Marks allocation

Items	Total Marks
Report and Presentation	50
Demo	50
• With circuit and working	
○ > 2 features (up to 50)	
○ 2 x features (40)	
○ 1x feature (30)	
• With circuit but not working	
○ Complex (20)	
○ Simple (10)	
• No circuit (0)	

