

ECE101-1L - FUNDAMENTALS OF ELECTRONIC CIRCUITS (LAB)

Activity #1: Familiarization with the Software

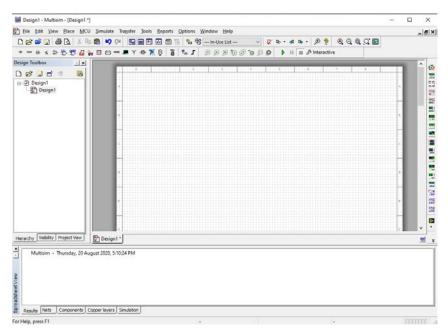
Objectives:

- Familiarize with the interface of NI Multisim
- Placing of Basic components
- Connecting different components
- Placing of instruments available in Multisim

Procedures:

Part A. Multisim

1. Open Multisim

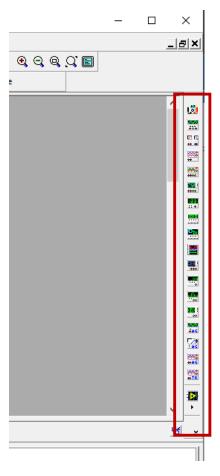


2. Explore different components on the components toolbar and place it on your workspace

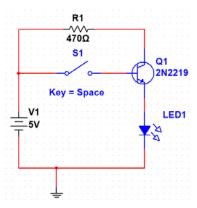




3. Explore different instruments on the instrument toolbar located at the right side of the window. Capture and List some of the instruments present on the software.

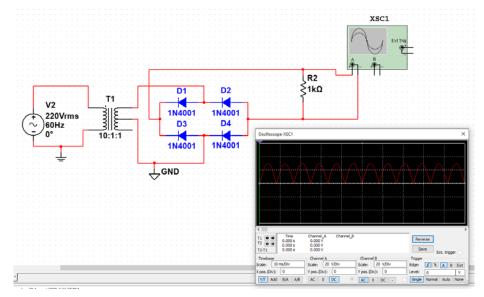


4. Create the circuit diagram below and measure the voltage across R1 and current flowing at Q1 (collector terminal). Simulate when switch is close and open.

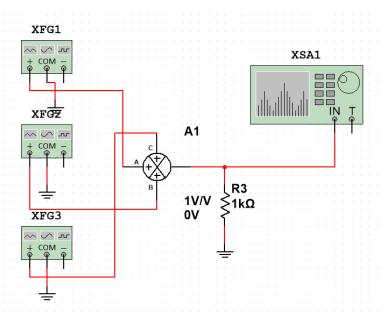


5. Create the circuit diagram below and using the oscilloscope measure the Vpeak of R2.





6. Place three Function Generators with 5kHz, 10KHz, 15KHz and connect to a Voltage summer inputs A, B, C and a resistor at the output. Using Spectrum Analyzer capture the output plot and identify the frequencies present on the plot.



- 7. Place a Function Generator with 100Hz Frequency, voltage peak value of 5, Sine Wave. Add resistors in series with the function generator Ri = 50 ohms and RL = 1k ohms.
 - a. Calculate the Period (T).

Using Oscilloscope show the Period Measured



Discussions:		