

IET Winter 2016
Embedded Systems Design
LAB 1 - Schematic design in OrCAD Capture

Lab Assignment:

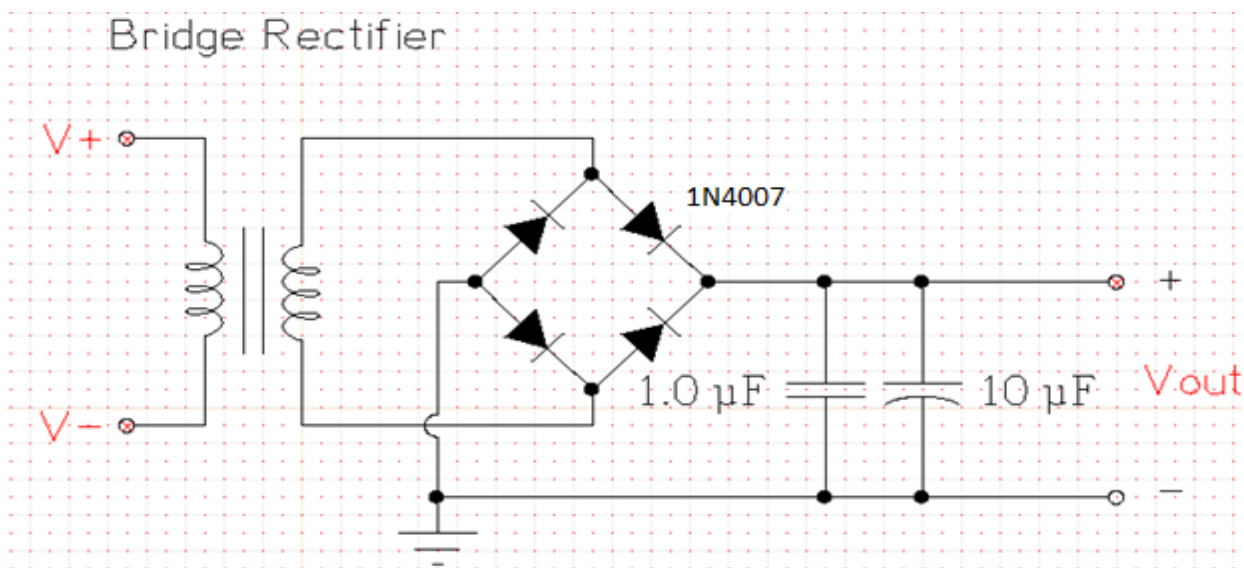
Some useful tips:

Procedure to get new schematic page -:

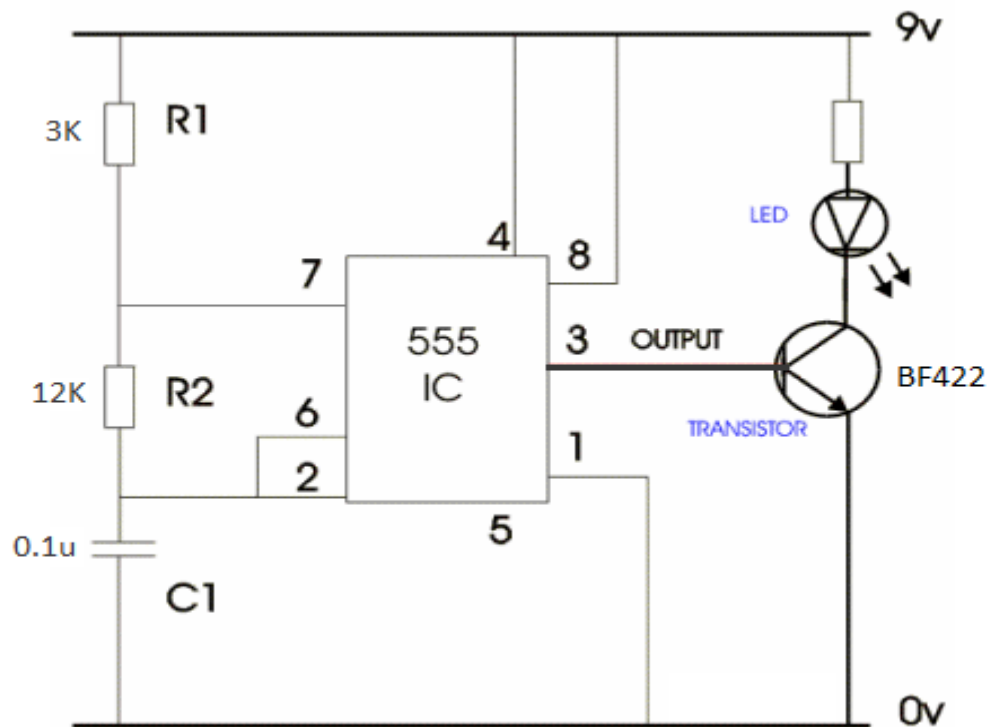
- i. File -> New -> Project
- ii. Give project name and select 'schematic' in Create a new project using , give a location and press ok
- iii. You will get new schematic page
- iv. You can design your circuit in this page.

Draw the following schematics in OrCAD Capture tool:

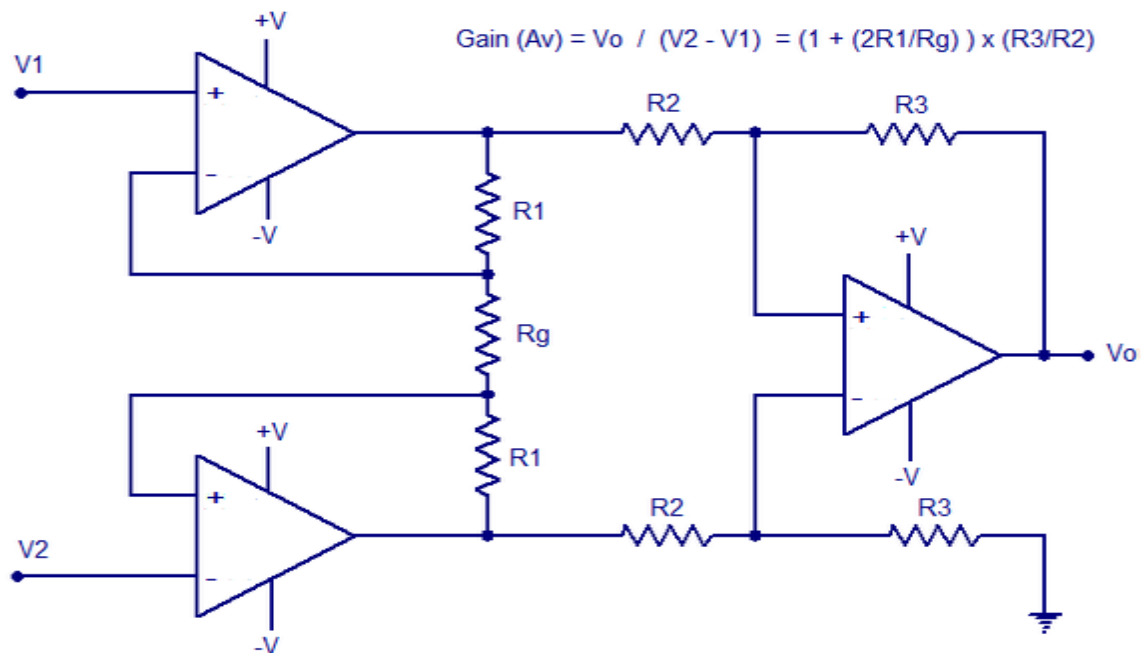
1. Bridge rectifier circuit



2. Astable multi-vibrator using 555



3. Instrumentation Amplifier using Op-amp

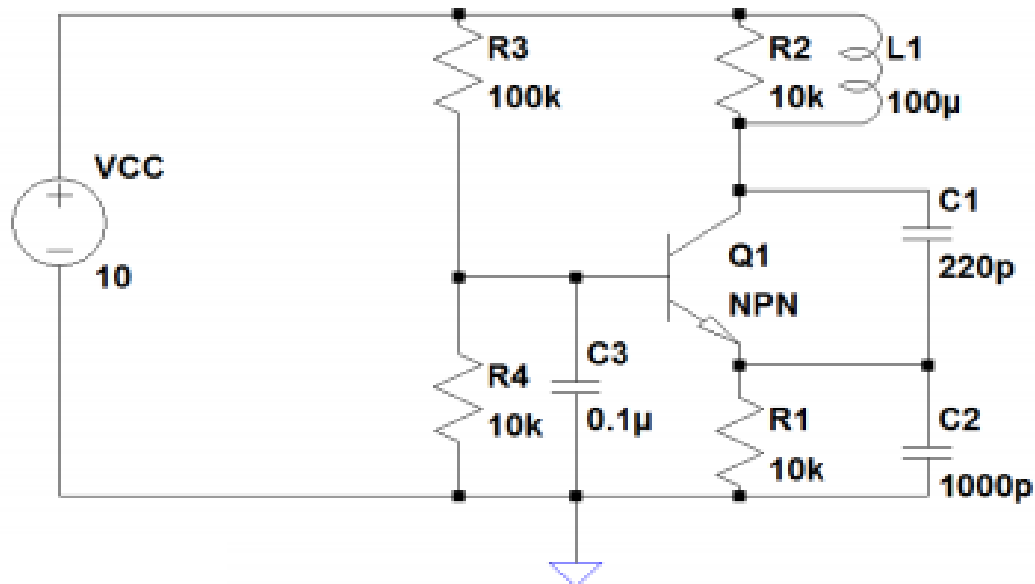


Note:

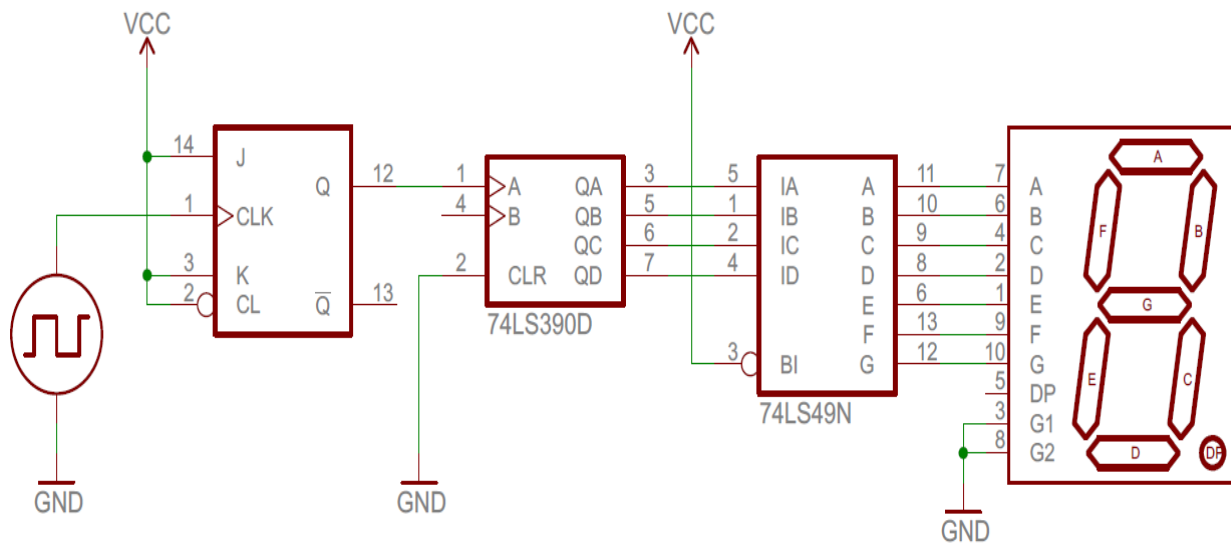
- Define the values of voltages and resistances.
- Use 741 opamp IC.

➔ Not connected pins must be denoted by 'no connect' symbol. (You can find that in place menu)

4. LC oscillator

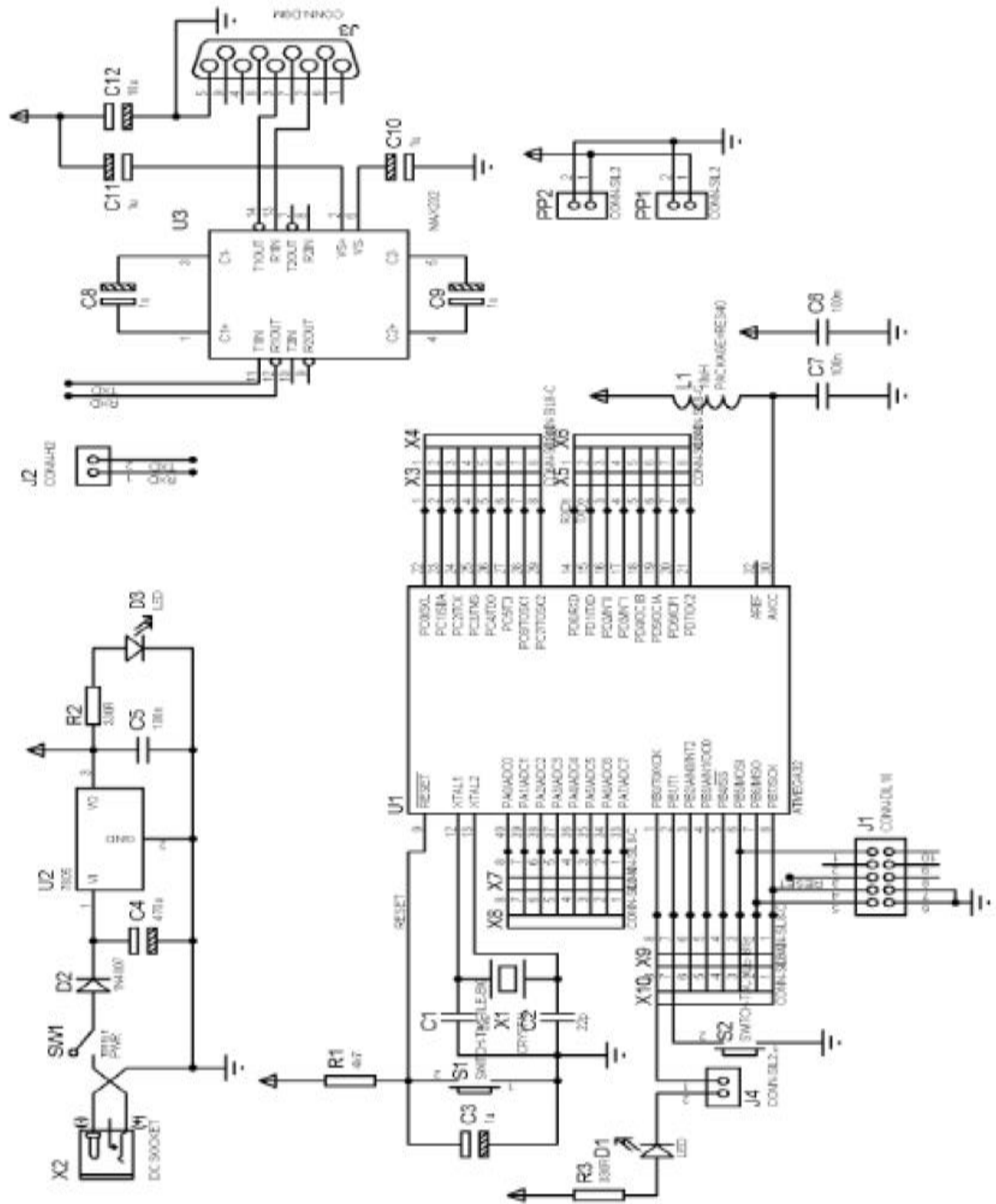


5. Counter Display



Note -: You may have to build a new part for 7 segment display. You can design your own parts/library from File -> New -> Library

6. AtMega32 development board



Note :-

You could download the better quality design from following link.

(http://store.extremeelectronics.co.in/images/D/avr40_devboard_schematic.png)