

CircuitLab Design and Simulation

ECE 401 - Homework #4

Due: October 18th

Once the project has been selected and the group chosen, you will need to research the needed parts and design the circuit. Make sure that you take into consideration the requirements that are listed below.

Paper Design

- Give the schematics for your ECE 401 circuit
- Include calculations
 - LED current = 10mA
 - Transistors are capable of driving 100mA loads
 - Frequency of 555 timers (if any)
 - etc

CircuitLab Simulation

- Simulate major sections
- DC Analysis
 - Currents and voltages
 - Compare to calculations
- Transient Response
- Simulate waveforms if using a 555 timer
- Check resulting frequency and duty cycle