Lesson 2

Hands-On Learning Moment-2:
BJT Astable Multivibrator PCB

Use the tools and concepts learned in this lesson to revise the Hands-On Learning Moment-1 project using SMT components

Task:

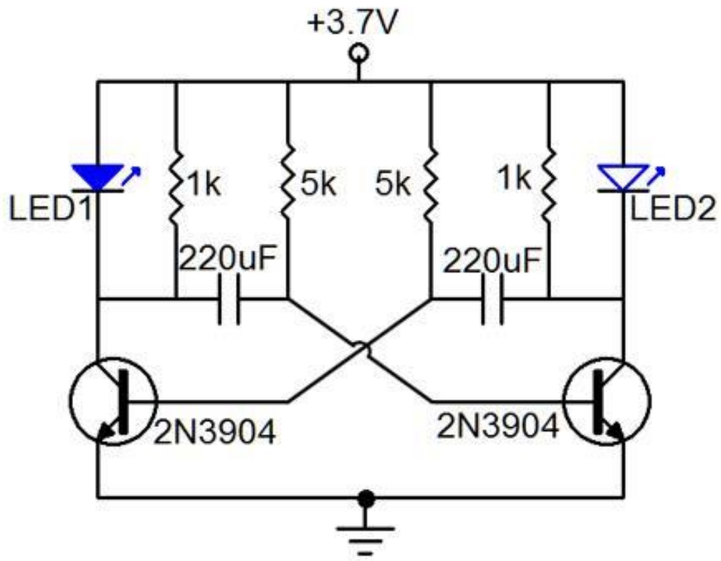
1. Draw the schematic and complete the layout.
2. Add fiducials and mounting holes
3. Make the corners rounded.
4. Make a PCB panel out of it.

Circuit: Astable multivibrator using discrete components.

Package: Surface mount components only. Connectors can be through-hole type.

Steps

1. Get the circuit:



2. Draw Schematic: Create the project, draw the schematic, annotate, ERC and finally export netlist.

Steps

3. Complete the layout: Map the components to a suitable package, set up the board, import netlist, place the components, make the necessary changes, route, DRC and finally generate Gerber files.

4. Create the panel.

Deliverable

1. PDF of schematic.
2. PDF of layout. Each layer in separate page.
3. Screenshot of the PCB 3D view.
4. Gerber files. the PCB 3D view.
5. PCB panel Gerber and 3D view.

Share The Project

Document: Save the report in PDF format.

Upload: Share in the “Peer Review” area of the course shell with a brief description.

Instructions for Documenting and Sharing The Project for Peer Review

1. Document the Project

- Use word processing software to create your report.
- Ensure all sections of the project document structure are completed.
- Proofread and edit your report for clarity and accuracy.

2. Share the Project

- Save your report in PDF format.
- Upload your documents to the “Peer Review” area in the course shell.
- Provide a brief description of your project in the submission post.

Instructions for Documenting and Sharing The Project for Peer Review

3. Peer Review

- Review the projects submitted by your peers.
- Provide constructive feedback and comments on their work.