
Design Services:

- >Embedded system design.
- >PCB Design & fabrication.

Development tools:

- >Development boards on 8051, PIC, AVR, Arduino & ARM.
- >Programmiers.
- >Peripheral boards & breakouts.
- >Sensors & wireless modules.

Workshops:

- >Robotics.
- > Arduino Computing.
- >Microcontroller Interfacing on 8051, AVR, PIC and ARM.

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Workshop On

PCB Design

&

Fabrication

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Hands On:

1. Need for PCB.

2. Introduction to KICAD.

3. A simple example: Schematic entry to PCB layout.

4. Schematic Entry in detail:

- Creating custom components.
- Importing standard libraries.
- Tools for creating components.

5. Generating Net list from schematic:

- Annotation schemes.
- Matching schematic symbols to footprints.

6. Footprints:

- Component packages.
- Measurement units & standards.
- Library footprints.
- Importing footprints.
- Creating custom footprints.
- Tools for footprint generation.

7. Board layout:

- Importing Net list.
- Footprint layout & form factor.
- Layers of design.
- Single layer, multilayer designs.
- Manual routing
 - Custom Tracks & vias.
 - Track width calculation.
- Auto Routing
 - Outline routing tools.
 - Generating custom routes.

8. Gerber file generation:

- Finalizing the design.
- Gerber file format for different layers.
- Appending multiple boards.

9. PCB Fabrication:

- Quick Presentation on PCB fabrication
- Checking FAB requirements.

Important Notes:

1. Everyone attending the workshop should be assigned a computer/laptop. Open Source Ki-CAD can be downloaded from www.kicad-pcb.org
2. A vernier caliper would be required to accurately measure footprints.
3. For more information write us at info@xplorelabz.com
4. Fees: Rs 500/- per student