Entry Level Microsoldering Course

5-Day Course Schedule

1 Foundations & Safety

- ESD safety, workstation setup, and proper device handing.
- PCB anatomy and understanding common components.
- Tools and microscope - irons, hot air, flux, and tip care.
- Hands-on soldering with practice kits to build core muscle memory.

2 Measurement & Port Soldering

- Multimeter fundamentals: voltage, resistance, continuity, and diode mode.
- Identifying and measuring SMD components on real boards.
- Soldering charge ports and USB-C connectors using hot air technique.
- HDMI and through-hole port soldering with inspection under the scope.

3 Schematics, Charging, & Reballing

- Reading schematics and using diagnostic software including ZXW and Wuxinji.
- Diagnosing and resolving charging faults - Tristar and CD3226.
- BGA reballing: stencils, paste application, and reflow technique.

4 Power Diagnostics & Fault Finding

- Identifying shorts, partial shorts, and missing voltages with a DCPs.
- Thermal camera use and power sequencing diagnostics.
- Backlight faults and a universal fault-finding framework for any device.

5 Trace Repair & Workshop

- Trace repair: jumper wires, conductive epoxy, and solder mask application.
- Open workshop - diagnose and repair your own devices with instructor support.
- Course review, certificate presentation, and next-step guidance.