

### Bespoke 'Hand Soldering & Rework Skills'

#### Bespoke Training Overview

Our bespoke 'on site' training programs, can be arranged to suit your customer, business & operator requirements. We usually start the process by discussing your products, processes, customer & business expectations & then draft a suitable training program. Courses are delivered 'on site' by a certified IPC Trainer (CIT).

#### Training Objective:

To provide each candidate with the theoretical knowledge & practical skills in line with the following;

- IPC-610 (Acceptability of Electronic Assemblies)
- IPC/J-STD-001 (Requirements for Soldered Electrical & Electronic Assemblies)
- IPC/WHMA-620 (Requirements & Acceptance for cable & wire harness assemblies)
- IPC-7711/7721 (Rework, Repair & Modification of Electronic Assemblies)

#### Program pre-requisites:

These can be explained & discussed, when tailoring a course to suit your needs..

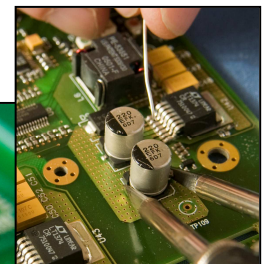
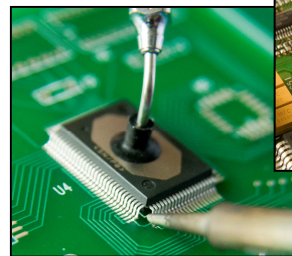
#### Program Content:

Optional Modules (you can choose some, or all, of the following)

- **Terminal wiring**
  - Wire preparation [Stripping & Tinning]
  - Soldering to Turret, Pierced/Perforated, Cup/Bucket, Hooked & Bifurcated Terminals
  - Soldering to Surface Mount PCB pads/lands
- **Through Hole Components**
  - Component lead forming, placement & soldering of various component styles
  - Dealing with the '*difficult to form*' solder joints
  - Various lead types, including Axial, Radial & Dual In Line (DIL) variants
- **Surface Mount Devices**
  - Component placement, alignment, tacking & soldering
  - Applying various soldering techniques for large & small, high & low pitch components
  - Gull wing, J-lead, Cylindrical & 'Square End' component termination types
  - Point to Point, Drag Soldering & Blade Tip soldering techniques
- **Component Rework**
  - Equipment & techniques for removing Through Hole & SMD components
  - Vacuum, Hot Tweezers, Profiled Tips, Quad Tips & Hot Air removal techniques
  - Pad/Land preparation (flux/solder removal)
  - Removal & replacement of conformal coatings

The following will be included in each training program;

- Objective of soldering electronic components
- Quality requirements (including 'lead-free')
- Essential tools & equipment
- Equipment care
- Suitable Solders & fluxes
- Placement & soldering of wires/components
- Cleaning the soldered joints
- Reworking defective joints
- Final joint & component inspection



#### Program Duration

This will depend on the training program content, & could span 1 day or up to 5 days.

#### What do you need to provide?

All 'Soldering/Rework Skills' programs, predominantly comprise of practical sessions, requiring bench space for each trainee, & a meeting room (or quiet area) for presenting some theory to the group.

#### What do STEM Training provide?

We usually supply all training tools & materials, including; Soldering/Rework Equipment, Fume Extraction, Hand Tools, PCBs, Components, Solders, Fluxes, Cleaning Agents etc. However, you are welcome to include your own products & equipment.

Please contact us to discuss your requirements, & we can then quote you for course content & candidate numbers.