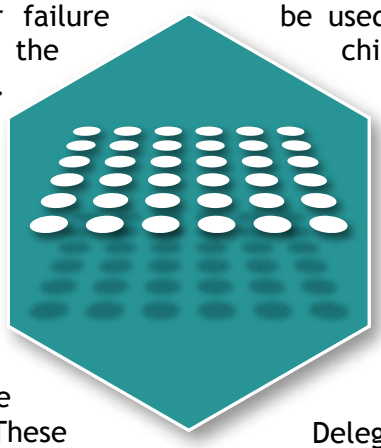
Rework for Mobile Device Repair

CLASSROOM COURSE

REPLACE CHIPS TO REPAIR DAMAGED DEVICES

Mobile devices can be damaged either through normal use, deliberate snapping or failure of specific chips which are vital to the device powering up successfully. Consequently, digital forensic units are routinely faced with mobile devices which cannot be powered on to a stable state such that data can be extracted using commercial forensic tools. Where possible and practical, such devices need to be repaired by removing and replacing the damaged or faulty chips on the device's printed circuit board (PCB). These techniques are referred to as "rework" within the electronics industry.



> "(THE TRAINERS ARE)... FRIENDLY AND APPROACHABLE BUT SUPER KNOWLEDGEABLE AND PATIENT"

Course Aims

Successful removal and replacement of chips from a mobile device PCB requires appropriate equipment and skilled techniques to ensure that the circuit board and surrounding components are not damaged in the process. This may include de-soldering using specialist hot air tools, preparation of replacement chips using stencilling techniques and re-soldering of the replacement chip (again with skilled use of hot air).

Rework for Mobile Device Repair is a 4½ day course designed to teach delegates how to safely de-solder faulty chips from an iPhone PCB and re-solder working replacements. The intention being to return a device to a bootable state where data can be extracted using commercial forensic tools.

Delegates will also learn how to repair damage to pads on the underside of any chip caused by accidental or intentional physical damage. Delegates will be working primarily on iPhone models (including those with "stacked" PCBs), however the techniques taught on the course can be used on any PCB with surface mounted chips.

The course also includes hands-on experience in chip-off techniques for data extraction from feature ("burner") phones as well as eMMC flash memory chips from unencrypted legacy Android devices, satnavs and vehicle systems.

Who should attend?

Delegates must have previous soldering experience. Ideally this will have been achieved by attending our Mobile Device Repair course (or other Control-F courses involving hand soldering).

Rework for Mobile Device Repair sits alongside our Intermediate Mobile Device Repair course which focuses on the diagnosis of board-level faults that may necessitate chip removal. Digital forensic units will gain maximum benefit where staff have attended Intermediate Mobile Device Repair and Rework for Mobile Device Repair.

What you will learn

By the end of the course, delegates will be able to:

- Safely remove & replace iPhone chips to repair faults which prevent data extraction
- Successfully clean and "re-ball" chips in preparation for repair
- Repair broken pads on printed circuit boards (PCBs) caused by physical damage to a mobile device
- Recover the contents of flash memory chips
- Explain & justify their actions in court

contact
+44 (0)20 8133 8758
info@controlf.net
PO Box 167, Sandy, SG19 9AL
www.controlf.net
Dates & prices are on our website