

Surface Mount

Don't be scared!

All you need is patience, steady hand,
good lighting and a few simple
handtools

Basic rework

- Using fine tipped soldering iron, tweezers and solder wick

Hot air gun



Tweezers



Solder paste versus Solder Wire

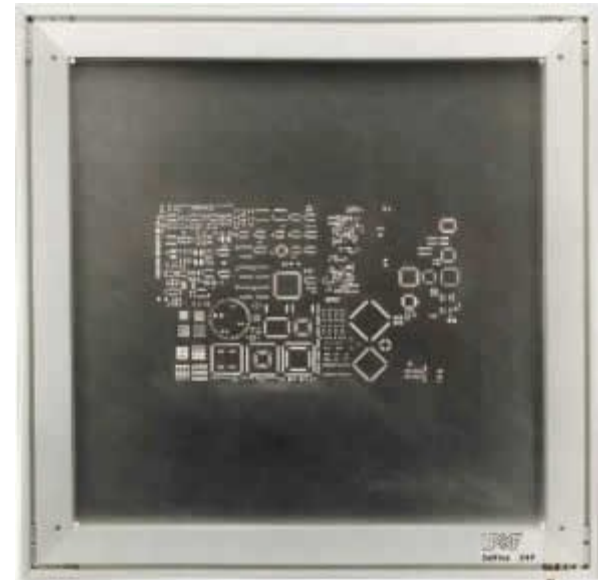
- You're choice
- Paste is just solder and flux mixed together
- Must keep paste refrigerated, otherwise the flux and solder will separate
- When reworking, use flux, no matter what

Rework Station

- Nice toy!
- Place components with paste
- Pre-heat
- Wait until temp is reached, then top heat
- Timer expires
- Move head away

How do the pros do it?

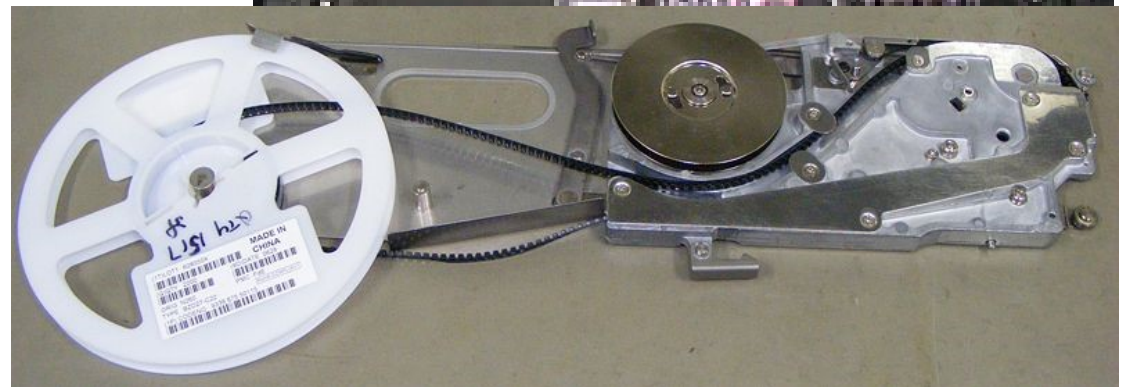
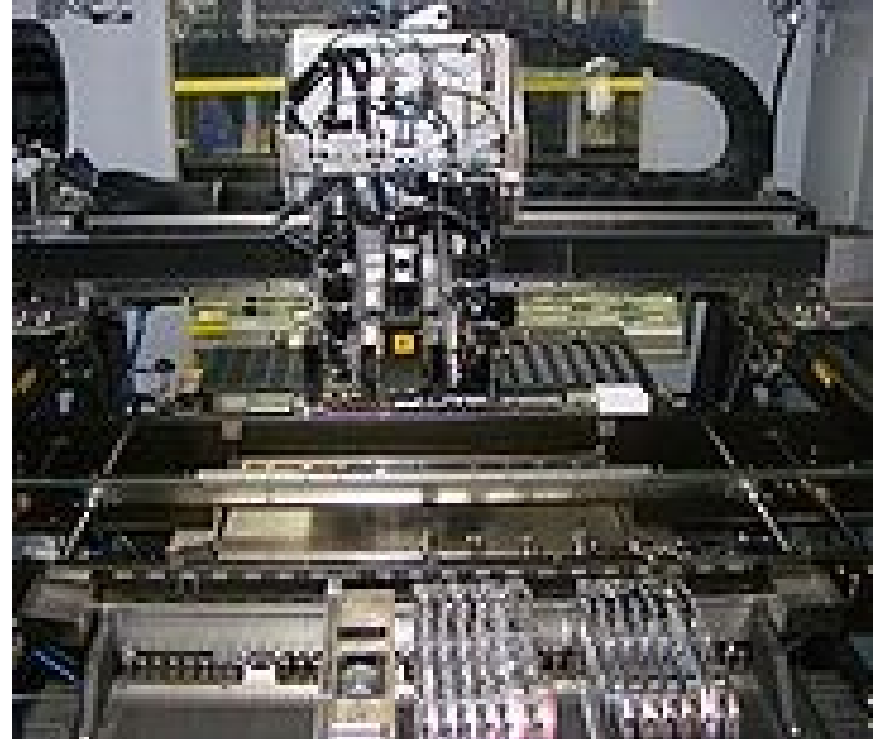
- Certainly not with a hand held soldering iron and tweezers!!
- First, solder paste is applied to PCB, normally via a machine and stencil



Components placed by machine

Come is 1 to many head varieties, all depends on how deep your pockets are.

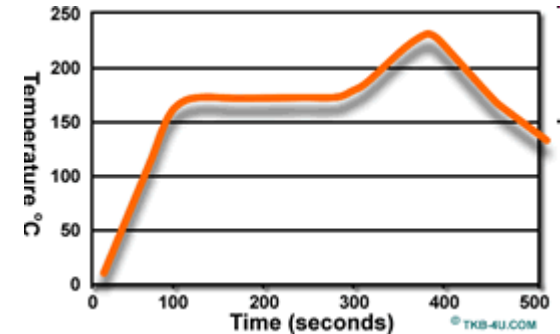
Most use reel or tube delivery systems depending on the size of the component. Large components are in trays.



Pick and Place machine

- [View video](#)

Reflow Soldering



Board moves along the oven, where the temperature profile is adjusted for pre-heat, flux activation, peak heat to flow then cool

Wave soldering



Used for last part of process for lead through components

Show video

