Not Perfect ... Hand Assembly

- Expensive
- Error-prone
- Unreliable
- Size-limited
Integrated circuits – transistors + resistors + capacitors – are created together out of similar materials in one long recipe.

Key fabrication process is photolithography – the transistors are “printed” on the silicon!
All Parts Built/Connected At Once

- Parts etched onto silicon in layers; use boron, phosphorus, aluminum, glass, etc.
This nMOS transistor implements the idea by exploiting an electro-magnetic field.