Personal safety

- Know what you don't know – make it a point to learn dangers
  - for each new technology
  - for each new machine or instrument
- Common sense is your most important protector, but:
  - you must understand what's dangerous,
  - and you must remember to use it!
- Technology-specific examples
  - optical – lasers, UV, IR – burns, UV (welding)
  - ionizing radiation
  - mechanical machinery
- Chemical
  - caustics
  - fumes
  - toxics
- Electrical and electronics
  - Voltage – shock
  - Current – burns
  - Power – explosions, burns, esp. RF

Electronic Equipment/Instruments

- Mechanical damage
  - gross deformation
  - delicate alignments
  - connectors
  - Do not force unless you know the consequences
- Overheating
  - sufficient air flow for instruments
- Electrical
  - Overvoltage, overcurrent
  - Shorts
- Static discharge
  - Especially important in new technologies
  - Damage not always readily apparent
  - Know that you are discharged – typically a wrist strap
- General
  - Know your instruments
  - Pay attention

Your circuit under development

- Check for shorts before powering
- Check your power supplies
- Check for overheating or excessive current draw
- Static discharge again

Common sense!

- Always keep safety in mind
- Keep your wits about you
- Never panic
    - personal safety above all
    - and the other guy, too!