



# Kachina Amateur Radio Club

P.O. Box 2996  
Show Low, AZ 85902

501(c)(3) public charity

Tax Id Number (EIN) 86-0726587

This class is aimed at individuals having little practical experience building and assembling/soldering electronic projects or kits. The class includes a lecture and the assembling and soldering of a take-home project (a small digital clock) as well as a soldering practice session before beginning the take-home project.

This introductory level class will concentrate on good soldering practices including:

- Proper safety considerations to be observed while soldering,
- Component soldering such as resistors, capacitors (wafer and electrolytic), transistors, diodes, IC sockets and other commonly used parts,
- Use of heat sinks to protect components,
- Wire to wire and connector soldering,
- Through hole construction,
- Manhattan or dead bug construction,
- Third hand and other techniques for safely holding construction materials while soldering,
- Component testing and identification (proper orientation and value),
- Tools commonly used while building electronic circuits including: safety glasses, pliers, cutters, soldering irons and solder, and flux,
- De-soldering techniques.

You are encouraged to bring your own tools including:

- (a) A soldering iron – 60 watts or so (\$9 and up at Amazon – (Home Depot, Lowes and Radio Shack also carry them). Soldering irons with multiple tips are great as you will want to experiment to find the tip that works best for you. I personally like a small chisel point. Additionally, an iron with a variable heat setting is also desirable.
- (b) Rosin core solder - .6mm or so. I recommend using leaded solder as it is easier for beginners to use as it requires less heat and flows smoother. However, if you wish to use non-lead solder you are welcome to bring that along with you. Please note that non-lead solder requires a hotter temperature of 650 to 700 degrees as opposed to regular leaded solder at 600 to 650 degrees so be sure that your iron can reach the higher temperatures.