Soldering

Soldering Iron Stand: A soldering iron stand is very basic but very useful and handy to have. This stand helps prevent the hot iron tip from coming in contact with flammable materials or causing accidental injury to your hand. Most soldering stations come with this built in and also include a sponge or brass sponge for cleaning the tip.

Wire cutters: A good pair of wire cutters is needed when soldering. Often wires need to be trimmed after components have been soldered in place.

Pliers: A small pair of pliers is also useful when soldering because they may be needed for pulling wires, forming them and holding them in place.

Flux: Flux is a very important part of soldering.
Flux is necessary to reduce the oxides that tend to form whenever you have hot metals in contact with the air.

How to Sloder:

1. Mount The Component: Begin by inserting the leads of the component into the holes of the circuit board. Flip the board over and bend the leads outward at a 45 angle. This will help the component make a better connection with the copper pad and prevent it from falling out while soldering.

2.Heat The Joint: Turn your soldering iron on and if it has an adjustable heat control, set it to 400'C. At this point, touch the tip of the iron to the copper pad and the component lead at the same time. You need to hold the soldering iron in place for 3-4 seconds in order to heat the pad and the lead.

3.Apply Solder To Joint: Continue holding the soldering iron on the copper pad and the lead and touch your solder to the joint. IMPORTANT - Don't touch the solder directly to the tip of the iron. You want the joint to be hot enough to melt the solder when it's touched. If the joint is too cold, it will form a bad connection.

4.Snip The Leads: Remove the soldering iron and let the solder cool down naturally. Don't blow on the solder as this will cause a bad joint. Once cool, you can snip the extra wire from leads.

Desoldering: The good thing about using solder is the fact that it can be removed easily in a technique known as desoldering.
This comes in handy if you need to remove a component or make a correction to your electronic circuit.

Life must continue. And continue towards perfection, through progress, evolution, through self-initiative. Impatience can not lead to do that. Frustration is its enemy.