LOTS C - Soldering 01 - SIMPLE CONNECTION OF TWO SECTIONS OF WIRE - doc.doc

ITEMS NEEDED

Caution: Solder and Soldering Irons are HOT

Wire Stripper
Lighter or Hair Dryer
Side Cutter
Heat Shrink
(Most common is 1/8, 3/16 and 1/4 inch)
Rosen Core Solder (1/32 inch in diameter)
Soldering iron also known as a Soldering pencil
Liquid Tape

Notation:

When using a variable wattage soldering iron use a lower setting when soldering wire.

Directions:

1. Strip about 3/4 inch of the insulation off each of the 2 wires.

2. Cut a piece of Heat Shrink about 1/2 inch longer than the amount of the insulation stripped off each wire. When 3/4 inch of insulation is stripped, use a 1-1/4-inch piece of Heat Shrink.

3. Tightly twist together the strands of the stripped ends of each wire individually.

4. Slide the Heat Shrink over one piece of the stripped wire.

5. Lay the twisted stripped ends over each other crossing at the center of the stripped area at a 90-degree angle. The stripped end should now look like an “X”.

6. Use your fingers to hold the wires in the crossover position.

7. Twist the end of the first stripped wire over the bare section of the second stripped wire starting as close as possible to the crossing point moving toward the insulation. Keep the turns of the first wire as tight as possible.

8. Twist the end of second stripped wire over the bare section of the first stripped wire in the direction of the insulation of the first wire starting from the crossover point. Keep the turns of the second wire as tight as possible.

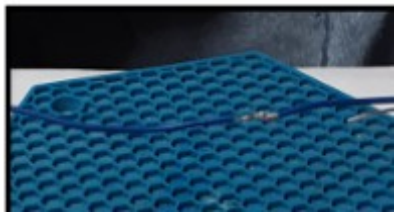
9. The joined wire is now straightened out, if not already all twisted together.

10. Take a hot soldering iron and lay its point in the middle of the joined twisted wires. Allow the wire to heat up for a few seconds.

11. Feed solder to the heated twisted joint and the solder should suck into the wire.

12. After the solder has been sucked into the twisted joint, set aside the solder. Remove the soldering iron from the twisted joint and replace it back in the cradle.

13. Let joint cool off a few seconds.



14. Slide the Heat Shrink tubing over the solder joint covering the entire bare joint (try to leave an equal amount of Heat Shrink on either side of the joint).

15. Use the lighter or hair dryer to heat up the Heat Shrink.
    a. The Heat Shrink will shrink tightly around the wire joint.
    b. When using a lighter or match, be sure to move constantly over the heat shrink as the rubber will burn.

16. If Step 4 is skipped or forgotten and Heat Shrink can't be slid over an open end of the joined wire, use Liquid Tape.
    a. Cover the entire bare section of the wire with Liquid Tape.
    b. Be careful because Liquid Tape is rubber-based, is runny and will drip. Liquid Tape is hard to get out of cloth.
    c. Allow the Liquid Tape to dry for about 5 minutes or so.

17. Joint is completed and it looks good.