

## Solderless Circuit Board

The Solderless Circuit Board is a device that allows you to assemble electronic circuits without the use of solder. It makes for quick and easy construction and is thus ideal for experimentation. As laid in front of you, the board can be shown as in the picture below:

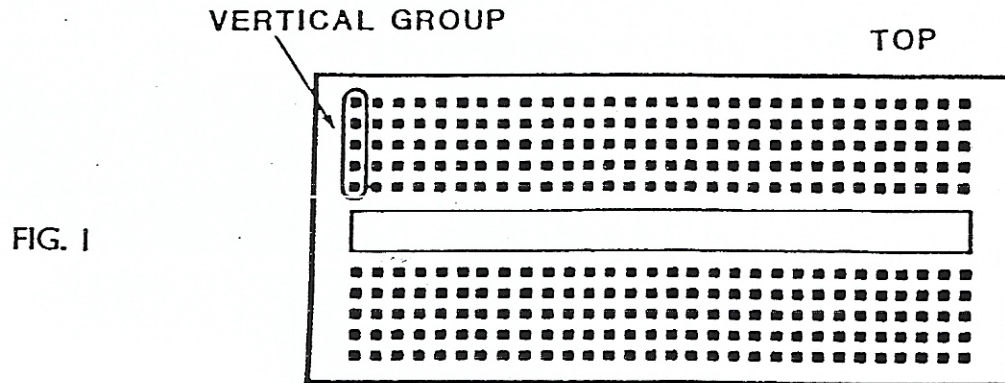
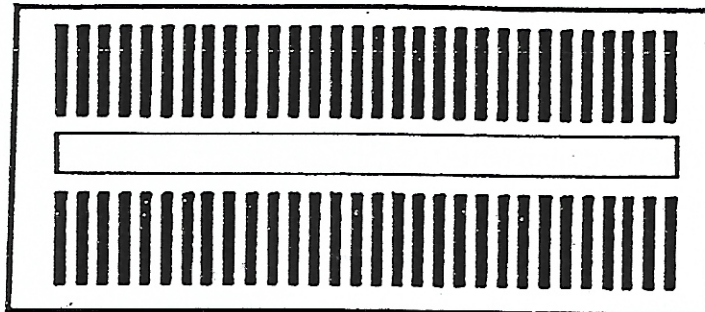


FIG. 1

Notice that there are many tiny holes in each board. Each hole will accept a component lead or wire. All five holes in each vertical group or set are connected together. Thus each vertical group is "shorted" together. Two or more wires or leads plugged into anyone of the five holes will be connected together. There are 60 sets of five holes. Under side of solderless circuit board showing metal strips which connect each set of five holes, as shown in Fig. 2 below.

FIG. 2



A center channel separates or divides the board in half. Integrated Circuits are straddled across this channel as shown in Fig.3.

Also note that numbers and letters were printed on the board to help to identify each hole during the construction process.

FIG. 3

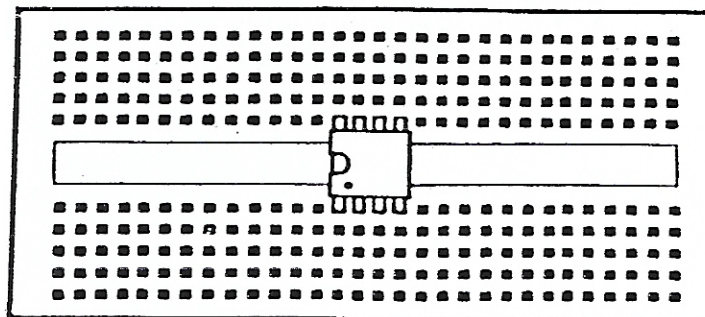
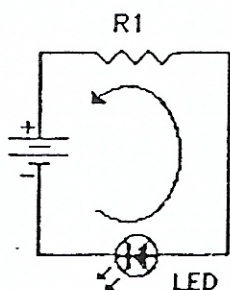


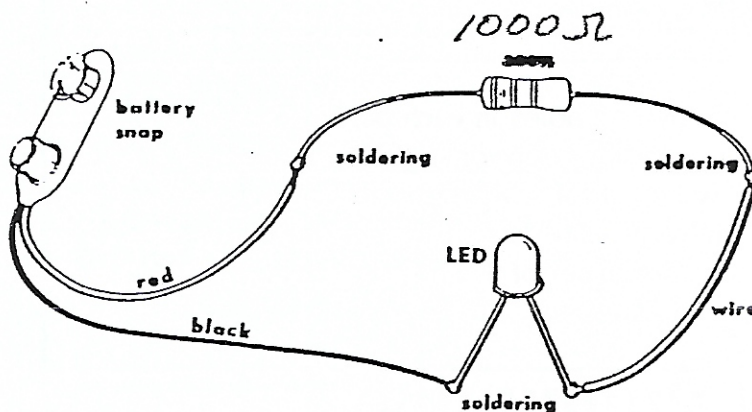
FIG. 4



In order to learn how to use the Solderless Circuit Board let us do the following experiment. Let us say that we want to build a simple circuit to light up an LED, like the one shown in Fig. 4. In this circuit an electric current flows from the negative terminal of the battery to the positive terminal, passing through the LED and the resistor. As current flows through the LED, it illuminates.

One way to build this circuit is by soldering the leads of the components to one another, as shown in Fig 5.

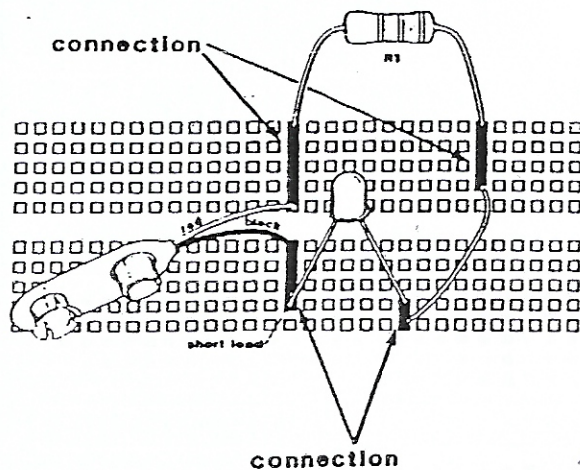
FIG. 5



THEN  
SOLDER  
THIS UP  
INCLUDING  
A SWITCH  
+ HAND IN.  
DEMONSTRATE  
CONTINUITY  
WITH SWITCH  
TO TEST IF  
IT IS GOOD.

Or, the same circuit can be constructed, easily and neatly, by using a solderless board in Fig 6.

FIG. 6



MAKE  
ON  
BREADBOARD  
FIRST  
THEN  
MEASURE  
V<sub>T</sub>, V<sub>LED</sub>,  
V<sub>R</sub>