Prototype Board Explanation

The diagram below shows one half of a typical prototype board:

Prototype board is used for building temporary circuits, without soldering. Component leads are pushed into the holes in the board to make connections.

Resistors, LED's, and wires can be pushed into any of the holes in the prototype board. Integrated circuits can be mounted along the wide gap in the middle of the board. Inside the prototype board, metal channels with springy contacts make electrical connections with the component leads. The metal channels are arranged in rows, as indicated below. A component lead and a wire pushed into the SAME channel are thus electrically connected to each other.

How the metal contacts are arranged inside

At the top and bottom of the board, there are two long channels connecting all holes in the row. These long channels are used for the positive power supply connection (from the plus + side of the battery) and for ground (from the minus - side of the battery).
Here is a photograph of the underside of a prototype board showing the metal spring channels. Notice that two of the channels have been removed, one of the power supply channels and one of the normal five-slot channels.
Here is a photograph of a wire making contact with the spring connection in one hole of a channel. This is the way it is supposed to look. The spring channel has been removed from the white plastic housing so that you can see it more clearly. Notice that the metal spring touches the metal part of the wire.

Here is a photograph of a wire NOT making contact with the channel. Notice that only the insulation (red plastic) is touching the spring parts of the channel.