

Prototype Circuit Board (Protoboard)

The protoboard (also called breadboards) is a device designed to interconnect electronic components without the need for soldering, which greatly simplifies the process of prototyping electrical circuits for evaluation. These boards have arrays of interconnected ports (holes) where the electronic components can be inserted and electrically connected without using solder. It is important to note that protoboards providing a two-dimensional array of through holes (Fig. X) are not intended for very high frequencies (> MHz) or high voltages.

In the figure (see item labeled 1) the horizontal groove down the middle separates the board into two sections and is the location to plug integrated circuits (ICs) of the DIP (dual inline pin) type with 0.3" lead spacing. Above and below the gap are vertically arranged in groups of 5 ports or holes (see item labeled 2). Because the five holes in one vertical group of five are connected together, wires and component leads plugged into any of the five holes of the vertical group will be connected together. One of those vertical groups is marked by a black line in the picture.

Along the top and bottom are 2 rows that are reserved for power supply and ground distribution (see item labeled 3). Holes in each of these two rows are connected together from each end to the middle. Notice that in figure I the two halves in each of the four horizontal rows are connected together by means of a short green wire.

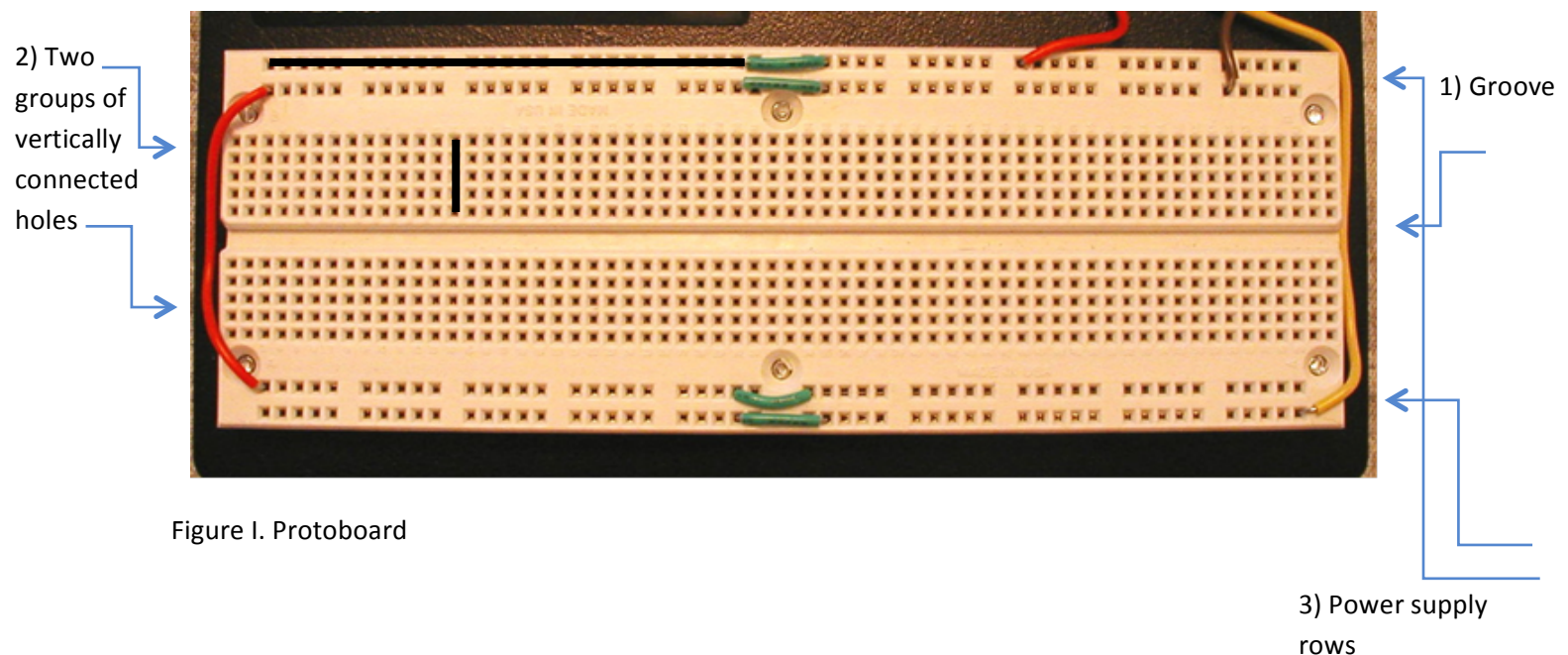


Figure I. Protoboard