Circuit building advice

1) Before building a circuit on breadboard, label all the nodes on the circuit diagram. Then write down on paper a table to list of all the nodes on a piece of paper. For each node, write down its position on the breadboard, and list all the elements and rails that are connected to it. For example:

Table of nodes

|  |  |  |
| --- | --- | --- |
| Node | Position on the board | Elements and rails connected to the node |
| A | 10 (Left half) | R1, R5, -5V |
| A (expansion) | 15 (Right half) | R2, 10V |
| B | 20 (Right half) | R2, R3, R4, R5, gnd |
| C | 25 (Left half) | Op amp pin 2 |

2) Use the power supply to lay down the ground rail and voltage rails on the breadboard

3) Use this table of nodes to place all the requisite elements into each node. This may involve directly placing an element (e.g., the prong of a resistor, the pin of an IC chip, etc.) into the node, or using a jumper wire to connect the node to a voltage rail or some other node.

4) When you are finished, double check your breadboard circuit against the table of nodes to make sure you did not make any mistakes.