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Methodology of an 8 x 3 Encoder.

1. For the 7805-voltage regulator the pin1 should be connected to the source, pin2 should be connected to the ground.
2. For the 7 buttons each input pin should be connected to the pin3 of 7805-voltage regulator.
3. For the 7 1K OHM resistors it must be connected between each of the output pin of the buttons and to the ground.
4. For the 1st OR gate, the 1st input pin should be connected to the output pin of the 7th button and the 2nd input pin should be connected to the output pin of the 6th button.
5. For the 2nd OR gate, the 1st input pin should be connected to the output pin of the 5th button and the 2nd input pin should be connected to the output pin of the 4th button.
6. For the 3rd OR gate, the 1st input pin should be connected to the output pin of the 1st OR gate and the 2nd input pin should be connected to the output pin of the 2nd OR gate.
7. For the 4th OR gate, the 1st input pin should be connected to the output pin of the 7th button and the 2nd input pin should be connected to the output pin of the 6th button.
8. For the 5th OR gate, the 1st input pin should be connected to the output pin of the 3rd button and the 2nd input pin should be connected to the output pin of the 2nd button.

9. For the 6th OR gate, the 1st input pin should be connected to the output pin of the 4th OR gate and the 2nd input pin should be connected to the output pin of the 5th OR gate.
10. For the 7th OR gate, the 1st input pin should be connected to the output pin of the 7th button and the 2nd input pin should be connected to the output pin of the 5th button.
11. For the 8th OR gate, the 1st input pin should be connected to the output pin of the 3rd button and the 2nd input pin should be connected to the output pin of the 1st button.
12. For the 9th OR gate, the 1st input pin should be connected to the output pin of the 7th OR gate and the 2nd input pin should be connected to the output pin of the 8th OR gate.
13. For the 10th AND gate, the 1st input pin should be connected to the output pin of the 9th AND gate and the 2nd input pin should be connected to the output pin of the 3rd NOT gate.
14. For the 3 LED each positive pin should be connected to the output pins of our OR gates. These are 3rd, 6th and lastly the 9th OR gate. And for the negative pin of the LEDS each should be connected to the ground.
15. Conduct functionality test.