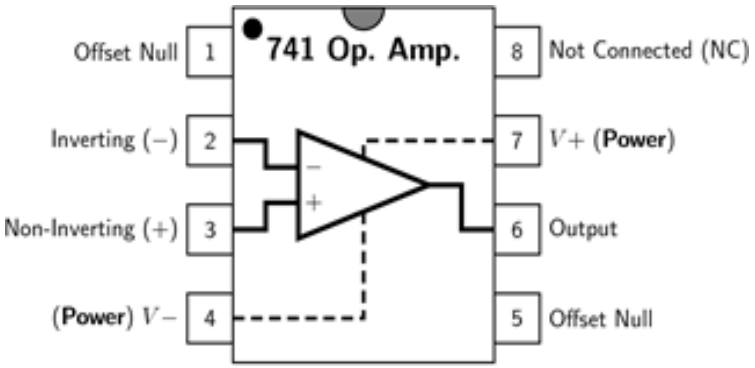
Pin Configuration:

Let's see the pin configuration and testing of 741 op-amps. Usually, this is a numbered counter clockwise around the chip. It is an 8 pin IC. They provide superior performance in integrator, summing amplifier and general feedback applications. These are high gain op-amp; the voltage on the inverting input can be maintained almost equal to V_{in}.

It is an 8-pin dual-in-line package with a pin out shown below.



Pin 1: Offset null.

Pin 2: Inverting input terminal.

Pin 3: Non-inverting input terminal.

Pin 4: –VCC (negative voltage supply).

Pin 5: Offset null.

Pin 6: Output voltage.

Pin 7: +VCC (positive voltage supply).

Pin 8: No Connection.

The main pins in the 741 op-amp are pin2, pin3 and pin6. In inverting amplifier, a positive voltage is applied to pin2 of the op-amp; we get output as negative voltage through pin 6. The polarity has been inverted. In a non-inverting amplifier, a positive voltage is applied to pin3 of the op-amp; we get output as positive voltage through pin 6. Polarity remains the same in non-inverting amplifier. Vcc is usually in the range from 12 to 15 volts. When two supplies (+Vcc/-Vcc) are used, they are the same voltage and of opposite sign in almost all cases. Remember that the operational amplifier is a high gain, differential voltage amplifier. For a 741 operational amplifier, the gain is at least 100,000 and can be more than a million (1,000,000). That's an important fact you'll need to remember as you put the 741 into a circuit.