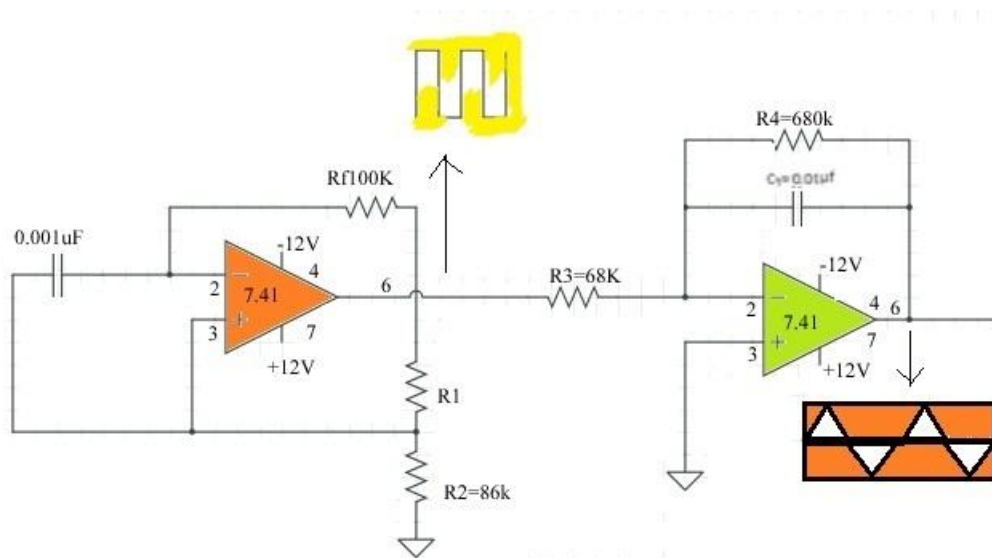


Function Generator Using IC 741 Op-Amp

Here I'm discussing about the circuit that which we can use in different ways to produce signals. In this we are observing that there are two op-amps that are of ic741.



Signal generator which provide a variety of waveforms are referred to as unction generator. These are commonly available as test instruments. The variety of wave shapes provided generally determines the complexity and cost of the generator system. It facilitates such as voltage control of frequency and ability to provide a signal wave or group of wave.

Function generator system can be readily synthesized using operational amplifiers on approach which is use full when the need for a special purpose generator arises or when a function generator is inconvenient or prohibited by cost consideration.

The basic wave shapes produced by most function generators are square wave & triangular wave. These can be shaped by non

linear amplifiers of other wave forms, including a sinusoidal waveforms.

The basic functions performed are as follows:

capacitor connected to orange colour(in fig) op-amp is while charging it used to generate fixe wave form periods and generate a square wave the left side circuit acts as a astable multi vibrator and the right side circuit acts as a integrator. As it is a astable multivibrator it generates signals with giving input and produces square wave.the square wave output is given as input to the integrator circuit it will be converted to ramps or triangular by charge and discharges of the capacitor. In the same time by changing the values of capacitor we can change the amplitude of wave and also by varying resistance we can change the frequency and time period up to required value.

NOTE

1. we have to connect the pins in correct order.
2. we did not increase the voltage rapidly that will cause ic damage

Source: <http://www.electronicshub.org/function-generator-using-ic-741-op-amp/>