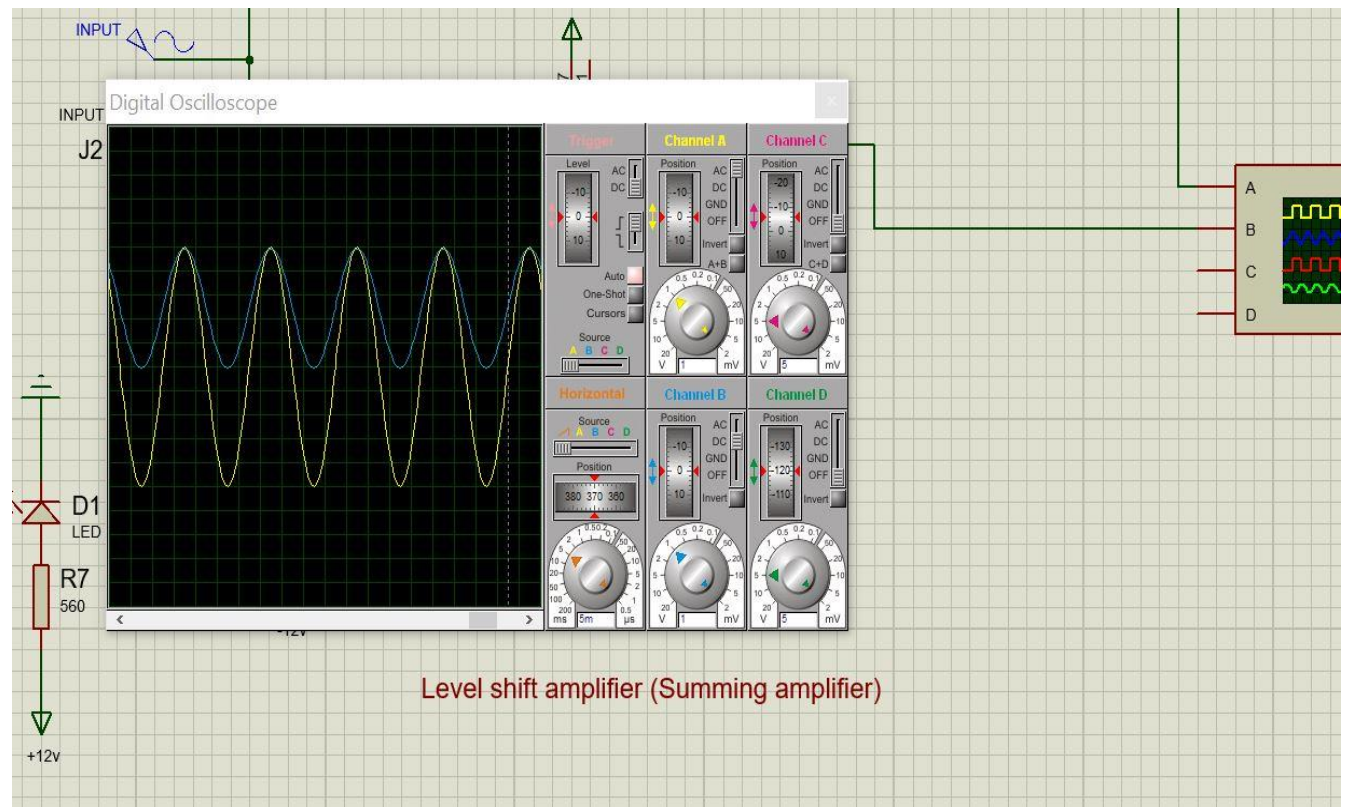


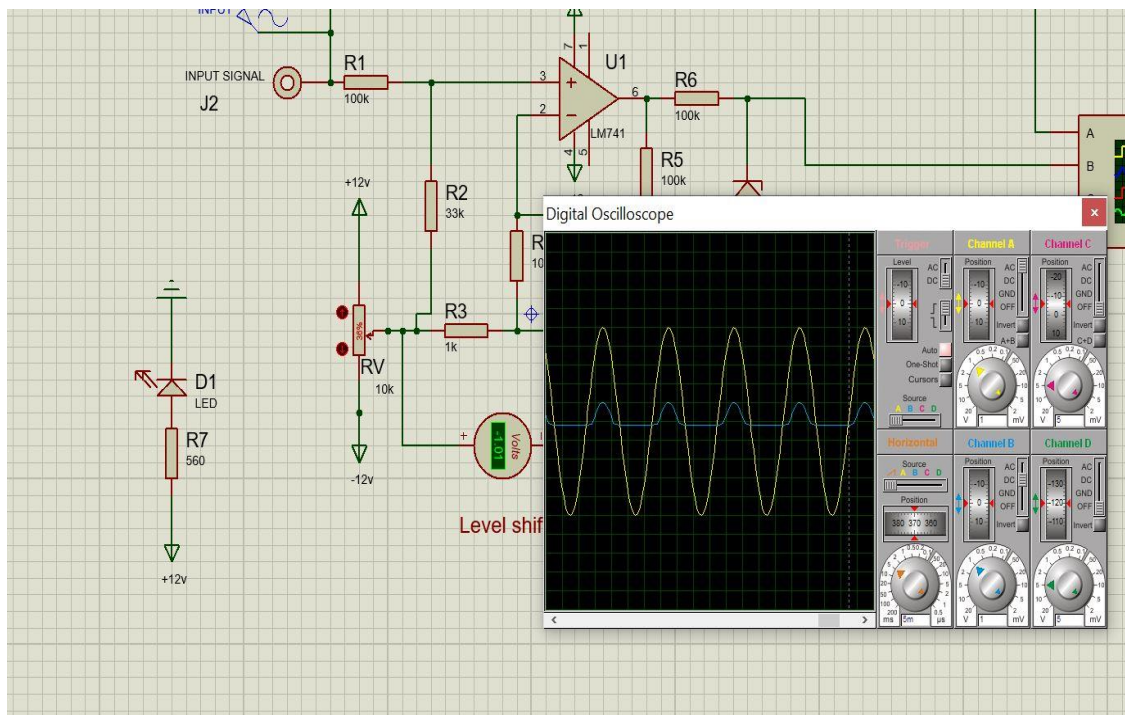
At no-load, the output signal in the following figure is blue while the input signal is the yellow wave form:



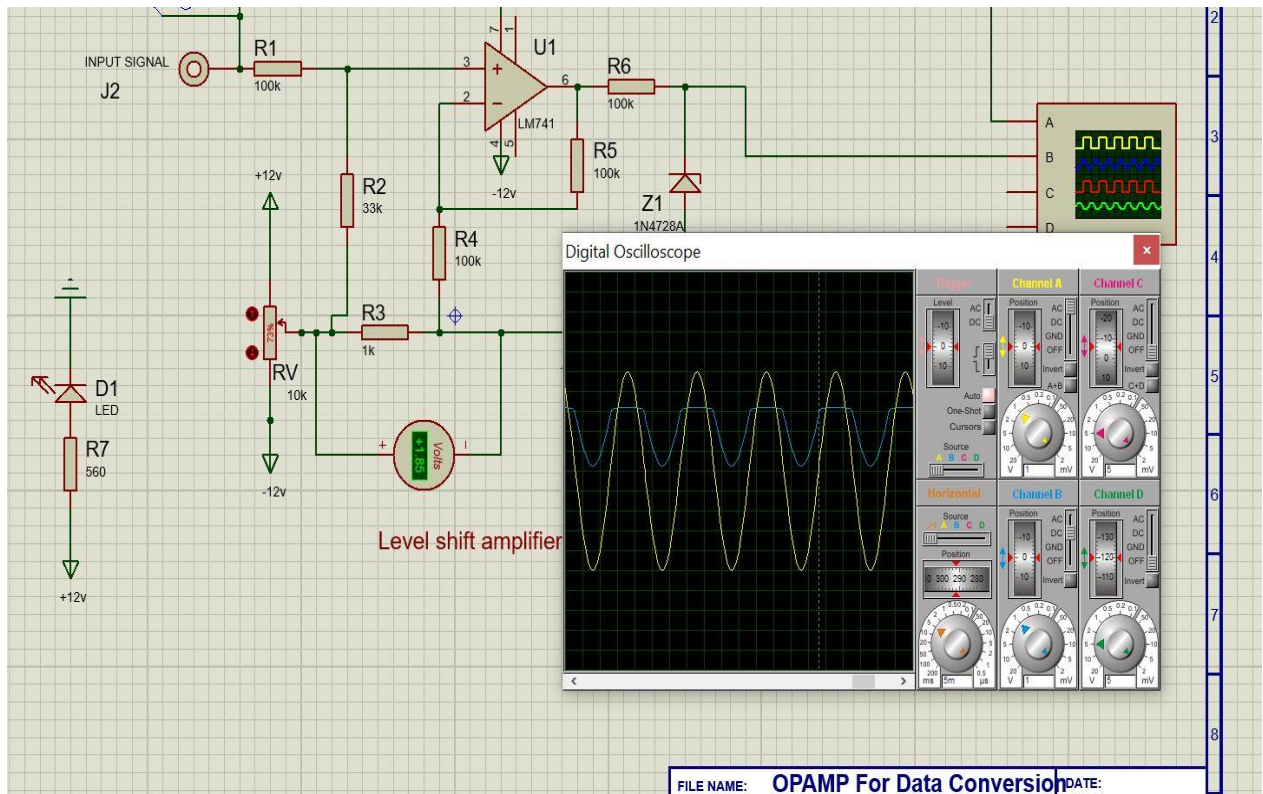
Figure(a) The expected output signal, zener diode of 5 volts, input signal with an amplitude of 5 volts and some DC input that shifts the signal.

The zener diode will keep the output signal between 0 and its break-down voltage. For example if the break-down voltage is 3.3 volts, it will keep the output signal between 0 and 3.3 volts without altering its shape, which allows us to use the output signal as an input to a micro controller.

Refer to the following figures:



Figure(b) The zener diode insures that the output signal does not go below 0 volts.



Figure(c) The zener diode insures that the output signal does not go above 3.3 volts.