

The BC3 Bicore

The BC3 Bicore has dual self-starting, buffered oscillators that can be run in suspended mode (1 resistor, R4/R7) or grounded mode (2 resistors, R3 & R5, R6 & R8).

In suspended mode, the Bicore outputs a 50/50 duty cycle in a frequency proportional to the resistance value. In grounded mode, the Bicore can output an asymmetric square wave, with differing on/off time values.

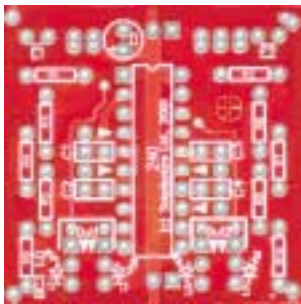
The board is pre-wired "on", although there is resistor location R1/R2 for those who wish to enable manual toggling (low = on). Cut the associated trace on the bottom to enable toggling.

Necessary Parts:

- 1 x 74AC240
- 4 x 0.1 μ F Monolithic Timing Capacitor (C3, C4)
- 1 x 22 μ F Electrolytic Pwr Filtration Capacitor (C5)
- 4 x LED (L1, L2)
- 2 x 470 Ω LED resistors (Yellow/Purple/Brown) (R2, R3)

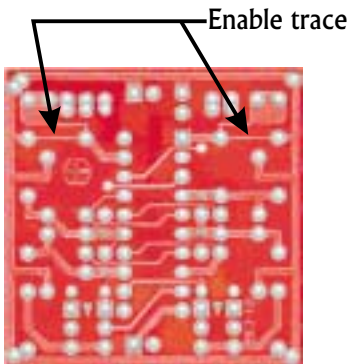
Other Parts:

- 2 x R4 Suspended-mode resistor (or)
- 4 x R5, R6 Grounded-mode resistors
- 2 x R1, Optional Enable resistor (47k)
- 4 x 0.22 μ F Capacitors replacing the 0.1 μ F capacitors



Top

- Edge Rail of PCB is Ground (-)
- Center Rail down middle is Vcc (+)
- PCB pre-enabled "on". Can over-ride by cutting trace on bottom, and adding resistor R1 / R2.
- Bicore enables, inputs, outputs, and components bilaterally separated on left/right sides of the PCB.
- Inputs labeled with arrow pointing inwards.
- Outputs labeled with arrow pointing outwards.



Bottom

