



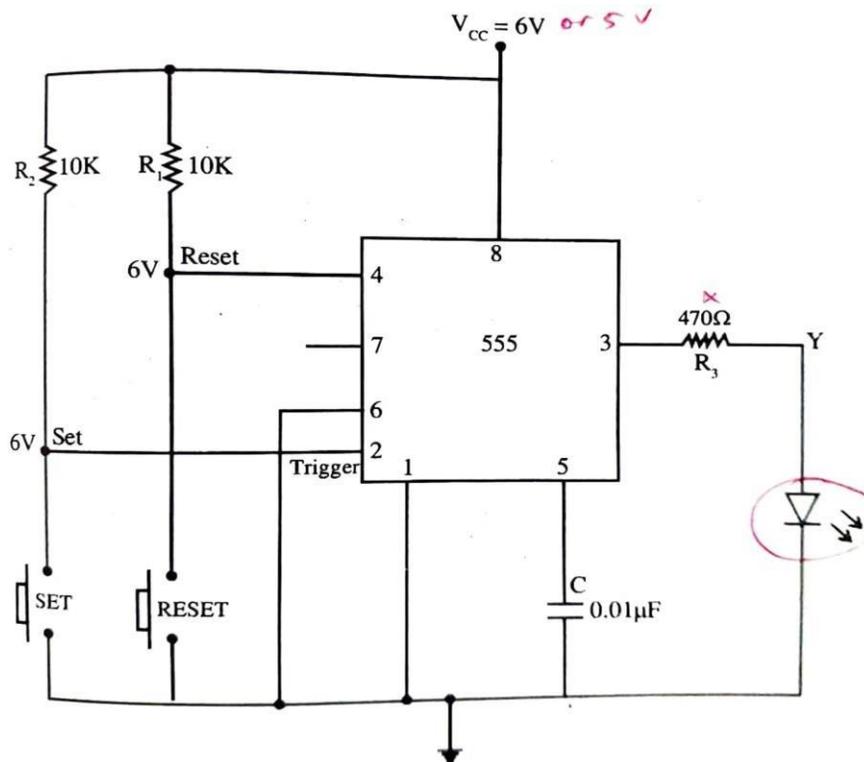
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BISTABLE MULTIVIBRATOR – USING IC 555

Aim

Construct a bistable multivibrator using IC 555.

It has two stable states (0 and 1). By using an external trigger, it can be switched from one stage to other. It works as Flip Flop



SET and RESET are controlled by two switches. LED is working as an output indicator. When the above two switches are open, second and fourth pins will be HIGH. When these switches are closed, they become LOW. C is used for eliminating high frequency noises. The resistor R, is used for limiting the current through LED.

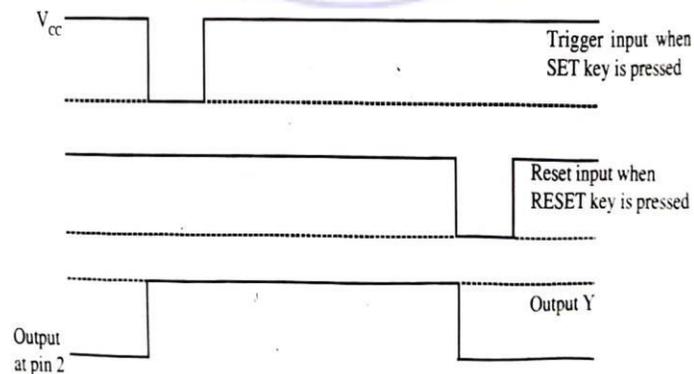


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Set S	Reset R	Q
0	0	No change
0	6V	0
6V	0	6V
6V	6V	Undefined

Working

When the switch SET is pressed, the voltage from V_{cc} bypasses the trigger terminal. It is shorted to ground through resistor R. Hence the trigger pulse will momentarily go low. Output at pin 3 becomes HIGH.



Similarly when switch RESET is pressed, the output at pin 3 becomes LOW.



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Result

Bistable multivibrator using IC 555 is constructed and Truth table is studied.

Reference

Experimental Physics – II, For Fifth & Sixth Semester, BSc Degree Programme, Dr.P. Sethumadhavan, Prof. K.C. Abraham, Prof. Meppayil Narayanan, Prof. Philipson C Philip,
Manjusha Publications

