

# MICROMOTOR CONTROLLER

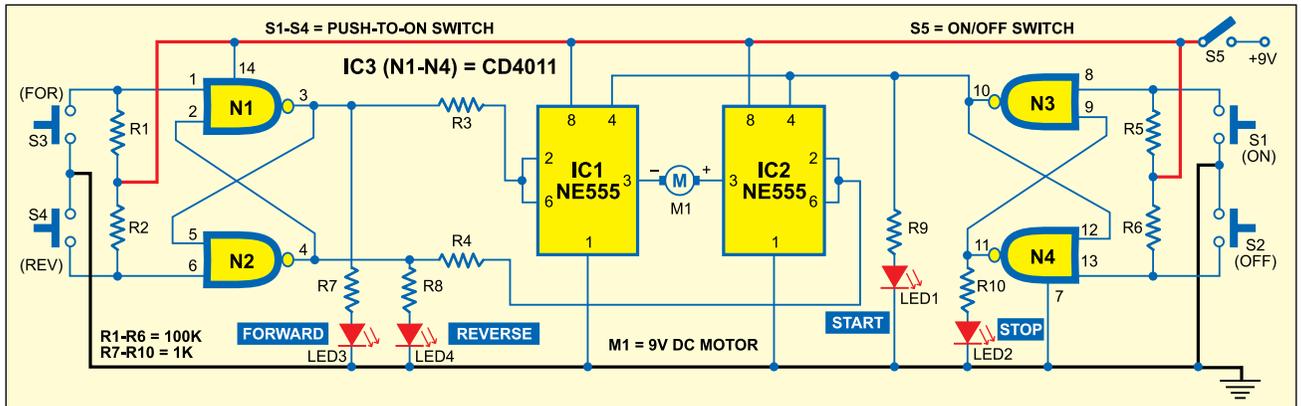
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Using this circuit, you can control the rotation of a DC micromotor simply by pressing two push-to-on switches momentarily.

connected between the outputs (pin 3) of IC1 and IC2.

Closing switch S5 provides power to the circuit. Now, when you press switch S1 momentarily, pin 3 of IC3 goes high, while its pin 4 goes low. The motor now starts rotating in the forward direction. However,

ward and reverse motion of the motor in conjunction with switch S1. If you press switch S3 after pressing switch S1, pin 3 of IC3 goes high, while its pin 4 goes low. The motor now starts rotating in the forward direction. However,



The circuit is built around two NE555 ICs (IC1 and IC2) and a quad-NAND IC CD4011 (comprising NAND gates N1 through N4). The NE555 ICs (IC1 and IC2) are configured as inverting buffers. IC CD4011 (IC3) NAND gates are configured as bistable flip-flop. The DC motor to be controlled is

of IC3 is connected to reset pin 4 of IC1 and IC2, the high output at pin 10 of IC3 will enable IC1 and IC2 simultaneously. When switch S2 is pressed, pin 10 of IC3 goes low, while its pin 11 goes high. The low logic at pin 10 disables both IC1 and IC2.

Switches S3 and S4 are used for for-

ward and reverse motion of the motor in conjunction with switch S1. If you press switch S3 after pressing switch S1, the motor will rotate in reverse direction.

**Note.** The complete kit of this circuit can be obtained from Kits'n'Spares, 303, Website: [www.kitsnspares.com](http://www.kitsnspares.com); E-mail: [info@kitsnspares.com](mailto:info@kitsnspares.com). ●