



## Accurate motor speed control with braking

Mr Malvar's 'Accurate motor speed control' (*W/W Circuit Ideas*, August 1980) described a circuit in which the effect of motor armature resistance was cancelled by using the armature current to provide positive feedback to the drive amplifier. The amplifier used a booster transistor which entailed the motor stopping under open circuit conditions.

Accurate motor speed control is often required with a fast stop/start, and this can be achieved by the addition of a transistor complementary to the booster transistor.

The circuit shows this addition, with a somewhat modified bridge circuit. When  $R_1 = R_a$  the armature back e.m.f. is equal to  $V_{REF}$ , which can be gated or switched to provide a fast stop/start ( $R_1$  being the variable resistor). A single supply may be used.

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