

Resolution Pulse Generator

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This circuit produces pulses whose width is controlled by a three bit word and which can be used to control motors and similar devices where high resolution isn't needed.

IC1 is a decade counter with outputs '0' to '9' going high in turn. Here it counts from '0' to '8' and is reset by the '9' output which is connected back to the reset pin. Outputs '0' to '7' are connected to IC2, an eight-line-to-one-line multiplexer. The output which is connected to pin 3 by the internal switches of the IC depends on the value of the three-bit word on pins 9, 10, 11.

IC3 is configured as a bistable and is set by the '8' output of IC1. It is reset by

one of the other outputs of IC1; the one selected by IC2. The length of the output pulse at pin 3 of IC3a depends on which output of IC1 is used to reset the bistable,

the output being selected by the three-bit word input to IC2. Note that the 4051 could be replaced by a 4512 data selector.

