

Bi-directional Motor Drive w/ Speed Feedback

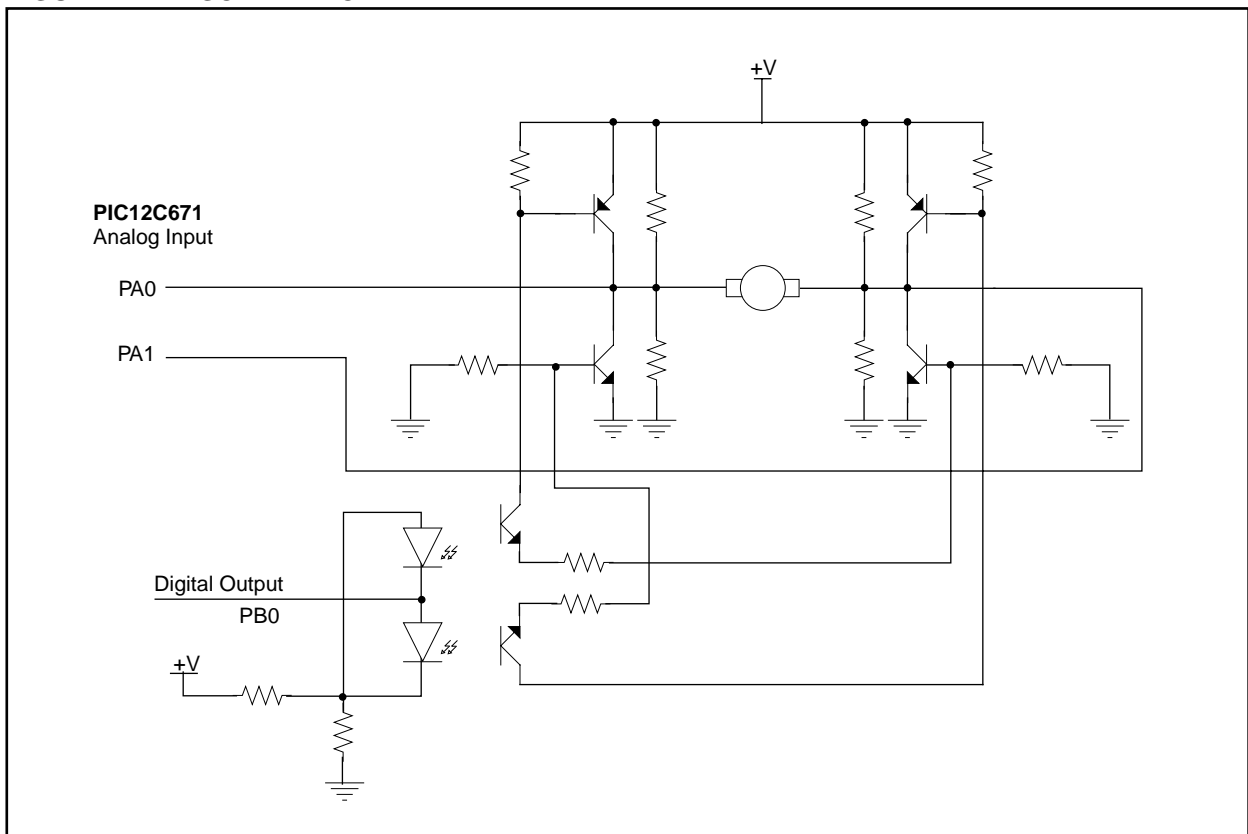
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To measure the motor speed, the output is tri-stated and the voltage on both sides of the motor are measured using the motor as a tachometer of its own speed.

INTRODUCTION

The circuit uses a single control bit to control direction and enable by pulling the line HI (which turns on one of the Opto-Isolators, which turns on one NPN-PNP pair, turning the motor one direction. Pulling the line LO, turns on the other Opto, energizing the second pair turns the motor in the other direction. Tri-state turns off both optos and the motor coasts to a stop. The output is intermittently tri-stated to PWM for speed control.

FIGURE 1: SCHEMATIC



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Simple Circuit

NOTES: