

Title of Article : Programming a Computer and a Microcontroller to Control the Speed and Direction of DC Motors

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.Abstract: Direct current (DC) motor has already become an important machine used in many applications across a wide range of powers and speeds. The ease of control and excellent performance of the DC motors will ensure that their applications will continue to grow in the future. This work is mainly concerned with DC motor speed, direction and active state (either start or stop) control by using microcontroller PIC18F452 via Pulse Width Modulation (PWM) technique, where its signal is generated in microcontroller. The PWM signal will request the motor driver to vary the voltage supply across the motor to maintain its speed. A program written in Visual Basic 6.0 is developed to provide a graphic user interface (GUI) to enable the control of the DC motor from a computer.