

PIC BASED DC MOTOR SPEED CONTROLLER

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ABSTRACT

This project's title is "PIC Based DC Motor Speed Controller". It is used to control the speed of the direct current motor by varying the potential meter.

In brief, this PIC based DC motor speed controller will detect and control the rotational speed of a DC motor. There are two DC motors used in this project and both motors will detect together by gears. One of the motor is used as a driving motor where another motor acts as a generator to give a feedback to the PIC.

When the feedback voltage is lower than the reference voltage, it'll increase the electric current which will rise up the speed to reach the setting speeds and vice-versa. It's possible to use when intend to keep constant speed even of the load to the motor changes.

On the other hand, there will be a row of light-emitting diodes – LEDs which have 3 different types of colors – green, yellow and red. All the LEDs are lit up to show the situation of the motor drive. When the motor is running at the highest speed, all the LEDs will be lighted up. However, the PIC will only light up the yellow LEDs when the motor is running at the lowest speed.