Matrix LED Driving System Utilization Arduino Uno

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Abstract

LEDs are current driven devices. It is relatively simple to drive several LEDs individually. However, as the number of LEDs increases, the number of resources needed to operate these LEDs grows to an unmanageable level. As such, LEDs are often arranged in matrices in order to make efficient use of resources. The implementation of a moving message display panel which displays a text containing 63 characters (i.e. Matrix LED Driving System Utilization ARDUINO UNO, Dr Nu Nu Swe, Dr Win Win Ma), and is powered by a pp3 9V battery has been achieved. The control of this panel is based on an Arduino Uno board. The used Arduino Microcontroller is programmed using C language, through using Arduino software. The system consists of an Arduino Uno, pp3 9V battery and 32x8 moving message dot matrix display panel with its rows and columns drivers.

Key words: 8x8 LED matrix displays, Arduino Uno board, Arduino Software (IDE), MAX7219

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