ABSTRACT

LED interfacing with ATMEGA328 microcontroller

A microcontroller, being an integrated circuit with a processor, contains support devices like program memory, data memory, I/O ports and serial communication interface integrated together. Since all the required support devices are available with the microcontroller, external interfacing of devices is not required.

One of the most popular microcontrollers is Atmega328 microcontroller.It is a very popular high performance 8 bit AVR Microcontroller. For this example project we need to use two registers DDR and PORT. DDR stands for Data Direction Register, it determines the direction (Input/ Output) of each pins on the microcontroller. HIGH at DDR register makes corresponding pin Output while LOW at DDR register makes corresponding pin Input. PORT register is the output register which determines the status of each pin of a particular port. HIGH at PORT register makes corresponding pin Logic HIGH (5V) while LOW at PORT register makes corresponding pin Logic LOW (0V).