Arduino ATmega2560

What is Arduino?

Arduino is an open-source electronics platform with easy-to-use hardware and software interface. Arduino also simplifies the process of working with various microcontrollers. In this theme we are using Arduino Mega which has ATmega2560 microcontroller and Arduino Nano which has ATmega328p microcontroller. Here we will be programming these microcontroller boards using Embedded C.

Why ATmega 2560?

ATmega2560 is a 100 pin microcontroller and is a low-power CMOS 8-bit microcontroller based on the AVR enhanced RISC architecture.

Refer to the ATmega2560 and ATmega328p datasheets for more information related to these micro-controllers. You can download the resources available from this link: http://elsi.e-yantra.org/resources.

The resources available in the above link are made for Firebird V Robot which is ATmega2560 microcontroller based. You can refer to these resources and learn the concepts of IO Interfacing, LCD Interfacing, Motor Interfacing, Interrupts and ADC Interfacing, etc. for the components given to you.

Programming with Atmel Studio:

If you know the basics of C then you are good to go in programming with Atmel Studio. Refer to the installation instructions given in '01_Installation Guide for AtmelStudio6.pdf ' for installation of software and '02_Setting project AtmelStudio6.pdf ' file for setting up a project.

Once the hex file is generated, flash the hex file onto microcontroller board as instructed in 04_Flashing HEX file.pdf and 06_Testing Code in Arduino Nano.pdf.