Nvis TechBook 5001A 8051 Universal Development Platform is a full featured development system for 8051 microcontrollers. It is an ideal platform to implement and test the designs both for the beginners and the experts. The Nvis 5001A comes with 20 Keys Hex keypad with 16x2 LCD for user programming mode. Nvis 5001A also supports PC based programming for large size program code. Using Nvis 5001A, a range of projects in various domains like telecommunication, robotics, consumer electronics, etc can be made.

Nvis 5001A gives designers a quick start to develop code on controller with on board programmer and on board breadboard facility. The flexibility of connectors allows user to make external connections. On board breadboard allows them to make their own circuits and perform any experiment they desire.

Features

- Core 8051 MCU clocked at 11.0592 MHz.

- User can enter op code using on board 20 keys Hex keypad

- For large program user can use on board PC based USB Programmer.

- On board LCD for both programming mode and run mode.

- Every pin is marked in order to make work easier

- User can write assembly codes in PC software and run on Nvis 5001A

- PC Programmer mode also supports other devices like AT89C51/52/55, AT89S51/52/53 , AT89S8252

- Input / Output & test points provided on board

- Self contained development board with on board DC Power Supply plug in modules and prototyping area

- On board breadboard for self circuit design

- CD with sample project code in assembly and C, Programmer software & useful documents

Scope of Learning

- Decimal Addition of two numbers.
- Hexadecimal Addition of two numbers.
- Hexadecimal Multiplication of two numbers.
- Hexadecimal Division of two numbers.
- Hexadecimal Subtraction of two numbers.
- Logical Operation AND, OR, XOR, NOR, NAND, and NOT.
- Factorial calculation
- Timer/Interrupt example.
- Square wave generation on port
- Ascending and descending order.
- Fibonacci series
- LCM calculation
- HCF calculation
- Multiplication by shifting
- Multiplication by adding
- Square root calculation of a byte.
- Square calculation of a byte
- 8 bit Array addition
- Flashing "Nvis 5001A" on LCD.
- Split bytes into two nibbles and display on LCD
- Program to find even or odd of a byte
- Interface various external MCXX series modules.
  (Ask for quote for additional programs if required)

Technical Specifications

Communication	:	USB
Programming mode	:	PC mode, Hex keypad mode
MCU	:	8051 core
Crystal Frequency	:	11.0592 MHz
DC Power Supplies	:	+12V, -12V, +5V & - 5V
Programmer	:	Ready to run programmer will program 8051 devices
Interconnection for modules	:	2 mm patch cords and FRC cables
Product Tutorial	:	Online (Theory, procedure, reference results etc).
Dimensions (mm)	:	W 326 x D 252 x H 52
Power Supply	:	110V - 260V AC, 50/60Hz
Weight	:	1.5Kg (approximately)
Operating Conditions	:	0-40^0 C, 85% RH
Included Accessories	:	USB cable, Mains cord, Patch cords, 20 Pin FRC cable, TeckBook Power Supply

Other Microcontroller support PC programmer modes

AT89C51/52/55, AT89S51/52/53 , AT89S8252

Suggested modules (optional)

Nvis MC01-Input interface module

Nvis MC02 -ADC- DAC interface module

Nvis MC03 - Computer interface module

Nvis MC04 - Display module

Nvis MC05 - Motor drive module

Nvis MC06 - Elevator control module

Nvis MC07 - TTL IO interface module

Nvis MC08 - Real time clock module

Nvis MC09- Graphical display module

Nvis MC10 - Display and switches module

Nvis MC11- Multi interface module

Nvis MC12 - Infrared modules

Nvis MC13- ADC-DAC with I2C

Nvis MC15 - Sensor module

Nvis MC16- PWM based voltage regulator
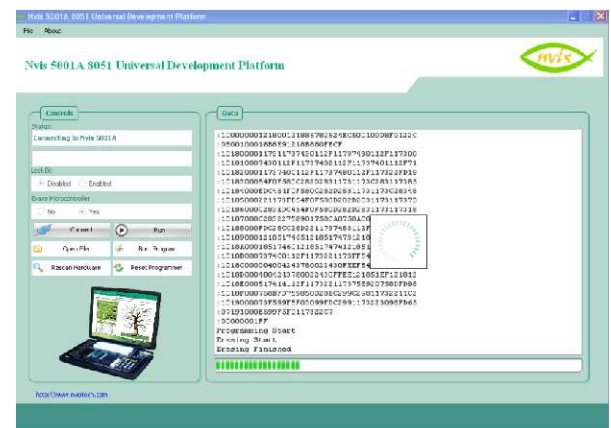
Nvis MC17- Vehicle motion detector module
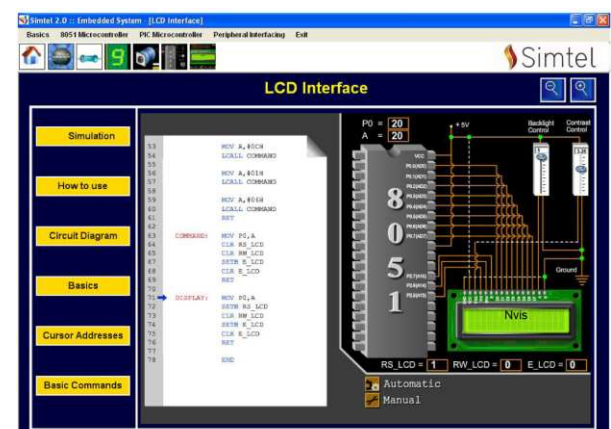
Embedded learning software Simtel.

Software window

Write assembly codes in PC software and run on Nvis 5001A

Burn .Hex file of Assembly or C codes

Embedded learning software Simtel (optional)

Subject to Change