

စာရေးသူ၏အမှာစာ

အခန်း(၁) INSTALLING MIKROBASIC PRO FOR PIC COMPILER

- ၁-၁။ နိဒါန်း
၁-၂။ mikroBasic PRO for PIC Compiler ကို install လုပ်ခြင်း

အခန်း(၂) The Basics of the BASIC Programming Language

- ၂-၁။ နိဒါန်း
၂-၂။ PROGRAM STRUCTURE
၂-၃။ ORGANIZATION OF MAIN MODULE
၂-၄။ ORGANIZATION OF OTHER MODULES
၂-၅။ IDENTIFIERS
၂-၆။ COMMENTS
၂-၇။ LABELS
၂-၈။ CONSTANTS
၂-၉။ VARIABLES
၂-၁၀။ SYMBOLS
၂-၁၁။ DATA TYPES
၂-၁၂။ AUTOMATIC DATA TYPE CONVERSION
၂-၁၃။ PROMOTION
၂-၁၄။ DATA CLIPPING
၂-၁၅။ EXPLICIT DATA TYPE CONVERSION
၂-၁၆။ OPERATORS
၂-၁၇။ ARITHMETIC OPERATORS
၂-၁၈။ DIVISION BY ZERO
၂-၁၉။ RELATIONAL OPERATORS
၂-၂၀။ LOGIC BITWISE OPERATORS
၂-၂၁။ BITWISE SHIFT OPERATORS
၂-၂၂။ CONDITIONAL STATEMENTS
၂-၂၃။ CONDITIONAL STATEMENT IF
၂-၂၄။ NESTED IF STATEMENTS
၂-၂၅။ SELECT CASE STATEMENT
၂-၂၆။ PROGRAM LOOPS
၂-၂၇။ WHILE LOOP
၂-၂၈။ FOR LOOP

- ၂-၂၉။ DO LOOP
၂-၃၀။ WRITING CODE IN ASSEMBLY LANGUAGE
၂-၃၁။ ARRAYS
၂-၃၂။ GOTO STATEMENT
၂-၃၃။ GOSUB STATEMENT
၂-၃၄။ ASSESSING INDIVIDUAL BITS
၂-၃၅။ SBIT TYPE
၂-၃၆။ BIT TYPE
၂-၃၇။ PROCEDURE AND FUNCTIONS
၂-၃၈။ PROCEDURES
၂-၃၉။ FUNCTIONS
၂-၄၀။ FUNCTION AND PROCEDURE LIBRARIES
၂-၄၁။ BUILT-IN ROUTINES MIKROBASIC PRO FOR PIC
၂-၄၂။ PROPROCESSOR
၂-၄၂-က။ PROPROCESSOR DIRECTIVE INCLUDE
၂-၄၃။ CONDITIONAL COMPILATION
၂-၄၃-က။ DIRECTIVES #IF, #ELIF, #ELSE, AND #ENDIF
၂-၄၄။ POINTERS
၂-၄၅။ @OPERATOR
၂-၄၆။ PROGRAM STRUCTURE IN MIKROBASIC PRO FOR PIC

အခန်း(၃) IDE OF MIKROBASIC PRO FOR PIC

- ၃-၁။ နိဒါန်း
၃-၂။ PROJECT MANAGER
၃-၃။ LIBRARY MANAGER
၃-၄။ CODE EXPLORER
၃-၅။ PROJECT SETTINGS
၃-၆။ CODE EDITOR
၃-၇။ COMPILING AND FIXING ERRORS
၃-၈။ DEBUGGING THE PROGRAM
၃-၉။ SOFTWARE SIMULATOR
၃-၁၀။ WATCH VALUES WINDOW
၃-၁၁။ STOPWATCH
၃-၁၂။ USART TERMINAL
၃-၁၃။ EEPROM EDITOR
၃-၁၄။ ASCII CHART
၃-၁၅။ SEVEN SEGMENT EDITOR
၃-၁၆။ LCD CUSTOM CHARACTER
၃-၁၇။ GRAPHIC LCD BITMAP GENERATOR
၃-၁၈။ LIBRARIES

အခန်း(၄) RELATED COMPONENT

- ၄-၁။ နိဒါန်း
၄-၂။ BASIC CONNECTING
၄-၂-၁။ POWER SUPPLY
၄-၂-၂။ RESET SIGNAL
၄-၂-၃။ CLOCK SIGNAL
၄-၂-၄။ Quartz Crystal
၄-၂-၅။ Ceramic Resonator
၄-၂-၆။ RC Oscillator
၄-၂-၇။ External Oscillator
၄-၃။ ADDITIONAL COMPONENT
၄-၃-၁။ Switches and Push-Buttons
၄-၃-၂။ RELAYS
၄-၃-၃။ LED DIODES
၄-၃-၄။ 7-SEGMENT LED DISPLAY
၄-၃-၅။ OPTOCOUPLER
၄-၃-၆။ LCD DISPLAY
၄-၃-၇။ LCD display pins
၄-၃-၈။ LCD Screen
၄-၃-၉။ LCD Memory

အခန်း(၅) EXAMPLES

- ၅-၁။ နိဒါန်း
၅-၂။ New Project
၅-၃။ EXAMPLE 1
Write header, configure I/O pins and use delay function
၅-၄။ EXAMPLE 2
Use assembly instructions and internal oscillator LFINTOSC....
၅-၅။ EXAMPLE 3
Timer 0 as a counter, declare new variables, use symbols, use a relay....
၅-၆။ EXAMPLE 4
Use Timer 0, Timer 1 and Timer 2. Use interrupt, declare new procedure....
၅-၇။ EXAMPLE 5
Use watch-dog timer
၅-၈။ EXAMPLE 6
Module CCP1 as PWM signal generator
၅-၉။ EXAMPLE 7
Use A/D converter
၅-၁၀။ EXAMPLE 8
Use EEPROM Memory
၅-၁၁။ EXAMPLE 9
Four-digit LED counter, multiplexing

- ၅-၁၂။ EXAMPLE 10
Use LCD display
၅-၁၃။ EXAMPLE 11
RS232 serial communication
၅-၁၄။ EXAMPLE 12
Measure temperature using DS1820 sensor. Use '1-wire' protocol....
၅-၁၅။ EXAMPLE 13
Sound generation, Sound library....
၅-၁၆။ EXAMPLE 14
Use graphic LCD display
၅-၁၇။ EXAMPLE 15
Use a touch panel
၅-၁၈။ EXAMPLE 16
Use a 4x4 keypad

အခန်း(၆) PRODUCTIVE PROJECTS

- ၆-၁။ နိဒါန်း
၆-၂။ Project_1
Running LEDs: LSB to MSB in step mode
၆-၃။ Project_2
Running LEDs: MSB to LSB in step mode
၆-၄။ Project_3
Running LEDs: LSB to MSB in progressive mode
၆-၅။ Project_4
Running LEDs: MSB to LSB in progressive mode
၆-၆။ Project_5
Running LEDs: Combined mode
၆-၇။ Project_6
Input Test : One Button
၆-၈။ Project_7
Input Test: Two Buttons
၆-၉။ Project_8
DC Motor
၆-၁၀။ Project_9
Stepper Motor
၆-၁၁။ Project_10
Two-Digit Down Counter
၆-၁၂။ Project_11
Two-Digit Down Counter with 5 Switches
၆-၁၃။ Project_12
Three-Digit Down Counter
၆-၁၄။ Project_13
Three-Digit Down Counter with 5 Switches

- ၆-၁၅။ Project_14
Simple Traffic Light Controller
၆-၁၆။ Project_15
Advanced Traffic Light Controller
၆-၁၇။ Project_16
Advanced Traffic Light Controller : Recycle-Green, Yellow, Red
၆-၁၈။ Project_17
Dark Activated Switch
၆-၁၉။ Project_18
Light Activated Switch
၆-၂၀။ Project_19
Automatic Water Level Controller
၆-၂၁။ Project_20
Automatic Temperature Controller
၆-၂၂။ Project_21
LCD: Character Moving
၆-၂၃။ Project_22
Electronic Devices Control System
၆-၂၄။ Project_23
Keypad Security System
၆-၂၅။ Project_24
Electronic Devices Controlled by Keypad
၆-၂၆။ Project_25
Automatic Greenhouse Watering System
၆-၂၇။ Project_26
LED Running Status Indicator with 7 Segment Display
၆-၂၈။ Project_27
LED Running Status Indicator with LCD Display
၆-၂၉။ Project_28
Logic Gate Trainer Kit
၆-၃၀။ Project_29
Logic Gate Trainer Kit with LCD Display

နောက်ဆက်တွဲ