**Program Alat Ukur Kedalaman Lubang Sumur Bor**  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

This program was produced by the

CodeWizardAVR V2.03.9 Standard

Automatic Program Generator

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Project : Tugas Akhir

Version :

Date : 7/6/2013

Author : Rike Harnadiningrat

Company : PEOTRO

Comments :

Chip type : ATmega8535L

Program type : Application

AVR Core Clock frequency : 16.000000 MHz

Memory model : Small

External RAM size : 0

Data Stack size : 128

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#include <mega8535.h>

#include <delay.h>

// Alphanumeric LCD Module functions

#asm

.equ \_\_lcd\_port=0x15 ;PORTC

#endasm

#include <lcd.h>

int a0,a1,a2,a3;

// External Interrupt 0 service routine

interrupt [EXT\_INT0] void ext\_int0\_isr(void)

{

// Place your code here

if(PIND.3==1)a0=a0+1;

else a0=a0-1;

}

// Declare your global variables here

void tulis\_angka(int angka)

{

int satuan,puluhan,ratusan,ribuan,sisa;

if(angka<0)

{

lcd\_putsf("-");

angka=-angka;

}

if(angka>999)

{

ribuan=angka/1000;

sisa=angka%1000;

ratusan=sisa/100;

sisa=sisa%100;

puluhan=sisa/10;

satuan=sisa%10;

lcd\_putchar(ribuan+48);

lcd\_putchar(ratusan+48);

lcd\_putchar(puluhan+48);

lcd\_putchar(satuan+48);

}

if((angka>99)&&(angka<=999))

{

ratusan=angka/100;

sisa=angka%100;

puluhan=sisa/10;

satuan=sisa%10;

lcd\_putchar(ratusan+48);

lcd\_putchar(puluhan+48);

lcd\_putchar(satuan+48);

}

if((angka>9)&&(angka<=99))

{

puluhan=angka/10;

satuan=angka%10;

lcd\_putchar(puluhan+48);

lcd\_putchar(satuan+48);

}

if(angka<=9)lcd\_putchar(angka+48);

}

void main(void)

{

a3=0;

a2=0;

a1=0;

a0=0;

// Declare your local variables here

// Input/Output Ports initialization

// Port A initialization

// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In

Func0=In

// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T

PORTA=0x00;

DDRA=0x00;

// Port B initialization

// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In

Func0=In

// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T

PORTB=0x00;

DDRB=0x00;

// Port C initialization

// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In

Func0=In

// State7=T State6=T State5=T State4=T State3=T State2=T State1=T State0=T

PORTC=0x00;

DDRC=0x00;

// Port D initialization

// Func7=In Func6=In Func5=In Func4=In Func3=In Func2=In Func1=In

Func0=In

// State7=T State6=T State5=T State4=T State3=P State2=P State1=T State0=T

PORTD=0x0C;

DDRD=0x00;

// Timer/Counter 0 initialization

// Clock source: System Clock

// Clock value: Timer 0 Stopped

// Mode: Normal top=FFh

// OC0 output: Disconnected

TCCR0=0x00;

TCNT0=0x00;

OCR0=0x00;

// Timer/Counter 1 initialization

// Clock source: System Clock

// Clock value: Timer 1 Stopped

// Mode: Normal top=FFFFh

// OC1A output: Discon.

// OC1B output: Discon.

// Noise Canceler: Off

// Input Capture on Falling Edge

// Timer 1 Overflow Interrupt: Off

// Input Capture Interrupt: Off

// Compare A Match Interrupt: Off

// Compare B Match Interrupt: Off

TCCR1A=0x00;

TCCR1B=0x00;

TCNT1H=0x00;

TCNT1L=0x00;

ICR1H=0x00;

ICR1L=0x00;

OCR1AH=0x00;

OCR1AL=0x00;

OCR1BH=0x00;

OCR1BL=0x00;

// Timer/Counter 2 initialization

// Clock source: System Clock

// Clock value: Timer 2 Stopped

// Mode: Normal top=FFh

// OC2 output: Disconnected

ASSR=0x00;

TCCR2=0x00;

TCNT2=0x00;

OCR2=0x00;

// External Interrupt(s) initialization

// INT0: On

// INT0 Mode: Falling Edge

// INT1: Off

// INT2: Off

GICR|=0x40;

MCUCR=0x02;

MCUCSR=0x00;

GIFR=0x40;

// Timer(s)/Counter(s) Interrupt(s) initialization

TIMSK=0x00;

// USART initialization

// Communication Parameters: 8 Data, 1 Stop, No Parity

// USART Receiver: On

// USART Transmitter: On

// USART Mode: Asynchronous

// USART Baud Rate: 1200

UCSRA=0x00;

UCSRB=0x18;

UCSRC=0x86;

UBRRH=0x03;

UBRRL=0x40;

// Analog Comparator initialization

// Analog Comparator: Off

// Analog Comparator Input Capture by Timer/Counter 1: Off

ACSR=0x80;

SFIOR=0x00;

// LCD module initialization

lcd\_init(16);

// Global enable interrupts

#asm("sei")

while (1)

{

// Place your code here

a2=a0;

a1=a2/13.78;

a3=a1/100;

{

a2=a1/100;

a1=a1%100;

}

lcd\_clear();

lcd\_gotoxy(1,0);

lcd\_putsf("Kedalaman Sumur");

lcd\_gotoxy(1,1);

tulis\_angka(a3);

lcd\_gotoxy(4,1);

tulis\_angka(a1);

lcd\_gotoxy(10,1);

tulis\_angka(a0);

lcd\_gotoxy(3,1);

lcd\_putsf(".");

lcd\_gotoxy(7,1);

lcd\_putsf("m");

lcd\_gotoxy(15,1);

lcd\_putsf("P");

delay\_ms(100);

}

};